THE IMPACT OF DIVERSITY COURSES ON STUDENT ATTITUDES TOWARD SEXUAL ORIENTATION AND RACIAL DIVERSITY

by

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Professor Lisa Lattuca, Co-Chair Professor Sylvia Hurtado, Co-Chair, University of California, Los Angeles Professor Emerita Patricia Y. Gurin Assistant Professor Julie Posselt Professor Michael Spencer "Prejudices, it is well known, are most difficult to eradicate from the heart whose soil has never been loosened or fertilised by education: they grow there, firm as weeds among stones."

Charlotte Brontë (1847) - Jane Eyre

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Chapter 1 Introduction

The American Commitments Panel organized by the Association of American Colleges and Universities stressed that "Higher education is uniquely positioned, by its mission, values, and dedication to learning, to foster and nourish the habits of the heart and mind that Americans need to make diversity work in daily life (Association of American Colleges and Universities, 1995, p. xvi). During a time of increased dialogue and legal action on the rights and limitations of targeting race and gender groups within the nation, college and university campuses are continuing to respond with intentional diversity education initiatives, including a broad range of curricular modifications and additions. Such diversity-oriented interventions as diversity courses are increasing in frequency, commanding a greater share of institutional resources, and garnering attention of the government and philanthropic foundations (Musil et al., 1999; Nelson Laird & Engberg, 2011).

Researchers and higher education critics have for some time concerned themselves with the role our nation's colleges and universities play in contributing to the development of student attitudes (e.g., Feldman & Newcomb, 1969; McClelland & Auster, 1990; Pascarella & Terenzini, 1991, 2005; Rankin, 2010; Vogt, 1997). Attention has included empirical tests regarding the contributions of diversity to student learning and college experiences (Antonio et al., 2004; Chang, Witt, Jones, & Hakuta, 2003; Gurin, Dey, Gurin, & Hurtado, 2003; Hurtado, Dey, Gurin, & Gurin, 2003). The politically charged times in which we live demand a thoughtful examination

of the ways in which diversity courses can contribute to developing the "habits of the heart and mind" so necessary in the students of today and the citizens of tomorrow (Association of American Colleges and Universities, 1995, p. xvi). To that end, this study responds to the need for a clearer understanding of the benefits of participating in diversity coursework and the specific relationship formal educational experiences have on the development of students' attitudes regarding our society's multiple diversities, in particular, on changes in student attitudes about race/ethnicity and about sexual orientation.

Diversity courses became a common element of the college curriculum during the 1970s, and are still relevant as colleges and universities continue to struggle with the same social issues and prejudices as the larger society. Campus incidents tend to underscore the continued volatility of race and sexual orientation in our society and on our campuses. Incidents of campus conflict, insensitivity, and hatred suggest that social integration among diverse groups remains a major challenge to campus diversity (Chesler, 2005; Dalton, 1995; Farrell & Jones, 1988; Harper & Hurtado, 2007; Hively, 1990; Hurtado, 1992; Rankin, 2010; Shenk, 1990; Sidel, 1994; Siggelkow, 1991; Smith, 1990a; Worthington, Navarro, Loewy, & Hart, 2008; Yoshino, 2006).

During a time of considerable campus racial unrest, Farrell and Jones (1988) classified overt campus racial incidents into seven categories: cross-burnings, racial discrimination, physical attacks, racist literature, racist remarks, racist behavior, and other. Campus race incidents include events and attacks described as constant over time and similar across geographic locations and types of campus (Chesler, 2005). Chesler and colleagues (2005) noted that the difficulty of gathering these data systematically, coupled with the reluctance of campuses to report these events, such numbers are likely to be underestimations. They also noted that the available data report on the most overt and aggressive kinds of incidents, failing to include the

more subtle "microaggressions." The term microaggression has been used to describe the racial actions which are not "gross and crippling. They are subtle and stunning. The enormity of the complications they cause can be appreciated only when one considers that these subtle blows are delivered incessantly" (Pérez Huber & Solorzano, 2015; Pierce, 1970, pp. 265-266). Racism has been characterized as a part of the fabric of American life, often difficult to be distinctively recognized (Ladson-Billings, 2000). Chesler and colleagues contend that "old-fashioned racism" is being replaced by more polite and more subtle forms of culturally-based "aversive" or "symbolic" racism (Chesler, 2005, p. 11).

Lesbian, gay, bisexual, and transgender (LGBT) students also face physical and psychological harassment, discrimination, prejudice, violence, victimization, hostility, and defamation on college campuses (Beagan, 2001; Bourassa & Shipton, 1991; Carpenter, 2007; D'Augelli, 1989a, 1989b; Engstrom & Sedlacek, 1997; Herek, 1989; Hurtado, Carter, & Kardia, 1998; Lipka, 2011; Lopez & Chism, 1993; Obear, 1991; Pawelski et al., 2006; Rankin & Reason, 2008; Rankin, 2003, 2010; Rhoads, 1995; Silverschanz, Cortina, Konik, & Magley, 2008; Tierney, 1992; Tomlinson & Fassinger, 2003; Wolf-Wendel, Toma, & Morphew, 2001; Yoshino, 2006). The 1998 torture and murder of University of Wyoming student Matthew Shepherd brought the issue of hate crimes targeted at members of the LGBT community to the nation's consciousness (Brooke, 1998). The 2010 suicide of Rutgers University freshman Tyler Clementi after his roommate broadcasted live video of Clementi and a male companion refocused the lens on harassment experienced by university students. Campus incidents of bullying, harassment, and intimidation elevate concerns about safety of gay students on college campuses (Lipka, 2011). In spite of continuing harassment against gay students, colleges and universities continue to struggle with whether they should include sexual orientation in their

institutional anti-discrimination policies, particularly in states where the state policy does not include anti-discrimination protection. Lipka (2011) noted that many campuses address the request for services only after a crisis underscores the need. Often, at these times, campuses then must address opponents (sometimes including state legislators) of the services provided to members of the campus gay community.

In addition to these forms of campus unrest, diversified student enrollment in the late 1960s and 1970s led to campus protests that resulted in the establishment of new areas of study (e.g., African American studies, Asian American studies, Chicano studies, Latino/as studies, Native American studies, ethnic studies, and women's studies), minority student organizations, specific academic and cultural support programs, and multicultural programming (Hurtado & Dey, 1997; Peterson et al., 1978). According to Humphreys (1997), curricular models for diversity were inspired by African American studies and women's studies, and then later elaborated on by other racial/ethnic studies programs, gay and lesbian studies programs, Jewish studies, and labor studies. These interdisciplinary studies programs laid the foundation for curricular transformations based on diversity. These student and faculty efforts resulted in significant changes in our understanding of pedagogy, epistemology, academic disciplines and their methodologies (Association of American Colleges and Universities, 1995; Musil et al., 1999).

National and state governments, and corporate and philanthropic foundations have provided funding support to help colleges and universities improve their effectiveness in addressing campus diversity. Additionally, campuses began to identify the need for developing their own diversity program agendas. While much of the earlier research on diversity concerned areas of student academic preparation and representation, more contemporary research began to

focus on determining the types of resources and interventions needed to educate a diverse student body. In addition to concerns about minority representation in higher education, persistence to degree completion, and the quality of educational experiences, diversity programming and its impact on the campus climate began to receive greater attention by researchers (Bernstein, 1990; Hurtado, 1992; Hurtado, Dey, & Treviño, 1994; Hurtado, Milem, Clayton-Pedersen, & Allen, 1998; J. F. Milem, Chang, & Antonio, 2005; Smith, 1989; Turner, 1994). Levine and Cureton (1992) argued that although diversity was increasing in the higher education curriculum by the 1990s, it had not been systematic or well-defined. Rather it had occurred more by "accretion than by design" (Levine & Cureton, 1992, p. 29).

Whether by intended design or not, diversity interventions became more widespread across the nation. Diversity interventions, however, take many different forms. Academic interventions include core curriculum modifications, diversity courses or courses with a diversity component, and curricular transformation. Co-curricular initiatives include such social initiatives as residence hall programming, race awareness workshops, intergroup dialogues (Gurin & Nagda, 2006; Hurtado, 2001), and diversity training sessions (Brown, 1993; Terrell & Hoeppel, 1992; Turner, 1994). Among the diversity interventions that have been implemented, an increasing number of campuses modified the undergraduate curriculum. Researchers found that the percentage of campuses requiring a diversity course by the end of the 1990s increased from about one-third to more than two-thirds (Humphreys, 2000). Humphreys and Schneider (1997) referred to a "renaissance in curriculum, teaching, intercultural understanding, and civic dialogue fostered by higher education's strengthening focus on diversity" (Humphreys & Schneider, 1997).

Such increases in campus diversity efforts were happening at the same time as growing critiques of what some considered a Eurocentric scholarship. Nieto asserted that diversity remained "fairly dormant and even inconspicuous" until attacks on the mainstream canon led to what Thompson and Tyagi (1993) have described as a "mean time in the academy" (Nieto, 1993; Thompson & Tyagi, 1993). The 1980s witnessed a series of calls for and criticisms of dramatic curricular change in undergraduate education (e.g., Banks, 1979; Bennett, 1984; Boyer, 1987; Levine, 1996; Marable, 1997; Nieto, 1992; Schlesinger, 1992; Takaki, 1991). While an increasingly vocal force within higher education was asserting that the curriculum needed to be more representative of American society and the changing student demographics, an increasing opposition argued that the core of the undergraduate curriculum should be founded on classic works of Western civilization.

Impassioned speeches about the destruction of higher education and America's future focused on the changing curriculum. An example of the kind of prediction of doom follows:

The introduction of cultural diversity, gender, and sexual orientation issues to the practice of higher education through a variety of mechanisms has apparently followed a tortuous path in universities and now seems to threaten the entire structure of the academy.

(Underwood, 1992, p. 1)

The fierce opposition to campus policies and practices that promote diversity often placed affirmative action at the heart of the challenge, questioning the educational benefits of diversity (Gurin, Dey, Hurtado, & Gurin, 2002; Hurtado, Engberg, Landreman, & Ponjuan, 2001).

While the canon debate may have been the central catalyst to moving the issue to the forefront of public attention, the 1990s were a time when campus diversity became the focus of much research in a variety of public policy and institutional contexts including accreditation

(Leatherman, 1992; Tobin, 1994), state-level governance (Schmitz, 1993), curriculum reform (Adams, 1992; Disch, 1993; Jones, 1992), and affirmative action efforts related to faculty representation (Milem & Astin, 1993). Diversity had become a part of professional education by accreditation mandate and professional needs analysis in such fields as social work and preservice teacher preparation (Garcia & Van Soest, 1997; Jibaja-Rusth & et al., 1994; Marcus, 1994; Nicklin, 1991). Implementation of diversity interventions were introduced in nearly every dimension of the higher education institution including curriculum, pedagogy, decision-making, and leadership.

Purpose of the Study

Higher education has a long history of examining what we teach, how we teach, and documenting the impact our teaching has on our students. As colleges and universities adopt more interventions that promote diversity and foster tolerance, the impact of these interventions needs to be considered. The purpose of this study is two-fold: 1) to explore the effect of student enrollment in diversity courses on students' attitudes about race/ethnicity and about sexual orientation; and 2) to examine if a model developed for a 1990-1992 cohort of students is replicable for a 2000-2002 cohort of students at the same institution. It is important to compare models across decades because of the changing societal and legal climates. Moreover, continuing patterns among students educated in a single context suggest stability in the link between key undergraduate experiences and student attitudes.

In society and on our campuses, we continue to struggle with intergroup conflict. Current public and legal debates require an informed and engaged citizenry, and higher education serves a critical role in that process (Bastedo, 2011; Nussbaum, 1998). The current study provides a tremendous opportunity to examine longitudinal change among participants in diversity courses

in their first two years of college. The results of this study provide an understanding of the potential impact of curriculum interventions designed to address the social responsibility of higher education. Employing a longitudinal research design to analyze survey data from students separated by a decade of important development in the area of diversity education, this study examines student attitudes toward race/ethnicity and toward sexual orientation at entrance and at the end of their second year in college.

Scope of the Study

In undertaking this study, I compare data collected as part of two major research efforts:

The Undergraduate Experience at Michigan (also known as the Michigan Study) begun in 1990 and the Preparing College Students for a Diverse Democracy Project¹ (also known as the Diverse Democracy Project) begun in 2000. The data for this study are drawn from the 1990 and 1992 Michigan Study and the 2000 and 2002 Diverse Democracy Project, which were designed to measure the impact of diversity-related experiences. The surveys were conducted in the first and second years of respondents' undergraduate education, a particularly critical period for student development (McLachlan & Krishnan, 1997 as cited in Chickering, 1981; Taylor, 1994). The first two years tend to coincide with student general education coursework, compared to coursework in a student's major field of study during the final two years of study (Springer, Palmer, Terenzini, Pascarella, & Nora, 1995). Since most students enroll in a diversity course early in their college career, this study allows an examination of the influence of these classes on overall changes in attitudes regarding race/ethnicity and regarding sexual orientation.

¹ Ten colleges and universities participated in the Preparing College Students for a Diverse Democracy Project. This study examines the University of Michigan sub-sample of the larger study.

On national and local levels, the 1990s included focused examinations of the impact of campus diversity interventions. The following years have been witness to many critical social changes, both more accepting and more aggressively negative. During these critical years, a developing attention has been paid to understanding how attitudes about race may differ from attitudes about sexual orientation and the related college experiences that may be influences. By building upon previous research examining the impact of diversity coursework and extending the examination by including data from a decade later, this study provides a unique opportunity to understand factors in the college experience that affect student attitudes about race and ethnicity and that affect attitudes about sexual diversity, and how these might differ.

Significance of the Study

Scholars have argued that higher education must embrace diversity to guarantee their survival as centers of excellence and as democracy-enhancing institutions (Antonio et al., 2004; Bernstein, 1990; Engberg & Porter, 2013; Gurin, Nagda, & Lopez, 2004; Hurtado, Griffin, Arellano, & Cuellar, 2008). Institutions of higher education are preparing a cadre of graduates for a future in increasingly diverse and complex communities. Today's college graduates will keenly experience the reality of this nation's diversity. We can argue that a risk of not addressing diversity is that colleges and universities will be graduating students who are ill-prepared to work, live, and make decisions in this diverse society and interdependent global community (Wilkerson, 1992). Graduates need "to acquire the analytical tools and knowledge necessary to survive, prosper, and contribute to a complex and changing world" (Disch, 1993, p. 199). The ability of graduates to understand the intersectionality of society may make the difference between their success or failure in a diverse workplace. The timeliness of these issues becomes more critical as the demographic changes, increased globalization, and political complexities and

challenges of our era warn us of the cost of intolerance. Chesler and colleagues (2005) have argued that challenging racism is key to the future of a democratic, just and sustainable society. Addressing intolerance in its myriad forms remains the true key.

The current study contributes to our understanding of the role that diversity-focused coursework can play in developing an understanding and respect for difference. The results offer important implications for practitioners and higher education administrators who are concerned with creating positive attitudes toward diverse students and in preparing students to participate in a diverse democracy. The focus of this study involves a long-standing commitment to diversity at a nationally prominent university. The degree to which a campus like the University of Michigan accomplishes its diversity goals is important for other campuses' attempting the same efforts.

This study employs survey instruments specifically designed to measure the impact of diversity-related experiences at two important time points in a ten-year period. Both the longitudinal research design and the ability to compare data from 1990 with data from 2000 deepen the importance of the findings. The current study strives to address several relative limitations in the higher education literature. First, the findings can offer a new perspective to help inform future research on LGBT issues. Second, the findings can assist higher education administrators and practitioners in understanding differences among diverse student populations' attitudes and the components of the college environment that seem to have the strongest effects on these attitudes. With this information, other campuses will be better equipped to design and implement appropriate programs and curricular modifications to reach a broader student audience. Lastly, the study provides a lens with which to focus attention on the unique degree to which the college experience can influence student attitudes about race and sexual orientation.

Terminology

It is important to consider the power and politics of language (Faustro-Sterling, 1993; S. R. Rankin, 2010). Gay and lesbian terminology is continuing to develop as more becomes understood about the relationship between gender and sexuality (Schulman, 2013; Smith, 2009). In their 2007 study, Egan and colleagues provided respondents with the opportunity to indicate their preferred terminology to describe their identity. They found that 87.7% of respondents were comfortable with one of the four traditional terms (e.g., gay man, bisexual, lesbian, gay woman) (Egan, Edelman, & Sherrill, 2008). Rankin's 2010 survey requested respondents to self-identify across several identity measures, including birth sex assignment, gender expression, sexual identity, and sexual attraction. This approach allows for a more thorough examination of respondents in self-defined categories.

While I acknowledge the emerging body of research that is addressing gender identity and expression, in the current study I remain true to the terminology used in the original surveys and responses from participants in 1990-1992 and 2000-2002.

Organization

The selection of variables and the development of the primary research questions are grounded in research on student development and college impact. A review of relevant legal and legislative action, University of Michigan campus context, and societal landscape are provided in Chapter 2. The relevant literature and theoretical considerations are summarized in Chapter 3. Chapter 4 provides an explanation of the methodology utilized to investigate the relationships, including a description of the data used to address the research questions. Chapter 5 presents the results of the quantitative analyses. The final chapter, Chapter 6, provides a discussion of what

has been learned in the analyses. Specific focus is given to the implications of this study for institutional policy and practice as well as suggested directions for future research.

Chapter 2 A Review of the Context

This chapter examines the legal, social, and campus contexts at the heart of this study and for the students who participated in the Michigan Study and Diverse Democracy Project. These contextual elements provide critical insight into the complexity of diversity in higher education, particularly relevant when reviewing college student attitudes across different eras as this study intends.

The Higher Education Landscape

The 1954 landmark Supreme Court decision of *Brown v. The Board of Education of Topeka, Kansas*, which ended legal segregation in public primary and secondary education, led to a period of increased civil rights activism and increased minority participation in higher education (Allen, Gurin, Peterson, Stassen, & Presely, 1991; Altman & Snyder, 1971; Mingle, 1981; Nettles, Theony, & Gosman, 1986). A number of key pieces of legislation were designed to increase representation and improve the status of minorities, as well as women, in educational institutions. These efforts included the 1972 extension of Title VII of the Civil Rights Act of 1964 to include all educational institutions, Executive Order 11246, and Title IX of the Educational Amendments prohibiting sex discrimination in education. Following the *Brown* decision and these legislative actions, efforts were made to achieve greater desegregation at all levels of education, and minority enrollments began to increase in the 1960s and 1970s.

In the second half of the twentieth century, these changing campus demographics were associated with an increase in civil rights activism and racial awareness (American Council on

Education, 1969; Gamson & Arce, 1978; Horowitz, 1987). Hurtado (1996) linked increases in the enrollment of women, adult students, and racial/ethnic minorities with a more proactive commitment to diversity, new teaching and learning practices, important questions about the production and transmission of knowledge, access to education, and a curricula that began to reflect the diversity of human experiences and perspectives (Hurtado, 1996). Horowitz (1987) refers to the "triggering experiences" of the civil rights era that brought students together across race. Such activities as sit-ins and freedom rides, and later demands for ethnic studies programs and black student housing, brought racial issues onto American campuses in a way not previously witnessed. Additionally, the civil rights and feminist movements, along with the Stonewall Riots of 1969 largely considered a catalyst for the LGBT civil rights movement, contributed significantly to the development of the gay pride movement (Evans, 1991). These national movements also had a profound impact on the nation's campuses.

The current study draws, in part, upon The Undergraduate Experience at Michigan surveys conducted in 1990 and 1992. During this period, efforts to diversify the curriculum were met with increased, and often heated, debate on college campuses and in the media. Key arguments made by the neoconservatives included the watering down of the traditional liberal arts curriculum (Bennett, 1984; Bloom, 1987); the downplaying of merit in favor of preferential admissions (D'Souza, 1991); and the undermining of traditional American values (Bennett, 1984). Bork (1996) warned that the alternative to Eurocentrism was fragmentation, chaos, and the demise of civilization. Yoshino (2006) referred to this juxtaposition of the values held by "conservative alarmists" and "radical multiculturalists" with the former defending a monocultural America and the latter a balkanized America.

Additionally, throughout the 1990s, the increasing nature and frequency of cross-racial violence on college campuses was documented (Dalton, 1995; Farrell & Jones, 1988; Hively, 1990; Shenk, 1990; Sidel, 1994; Siggelkow, 1991). Smith (1990) characterized the campus experience for minorities as including alienation, lack of involvement, marginalization, overt racism, incidents of racist attacks, and discrimination. The National Institute Against Prejudice and Violence found that nearly a quarter of minority students reported racially or ethnically motivated assaults, vandalism, or harassment, and more than half experienced related distress (Erlich, 1990). Studies also examined the level of subtle and covert racism experienced by different racial groups on campuses (e.g., Reyes & Halcon, 1988).

Researchers have also investigated the extent of campus racial tension and how student perceptions of the tension differ by race. Research studies conducted in the 1990s showed a wide gap between minority and majority perspectives of the tension. Hurtado (1993) found that Latino students indicated that they have experienced some degree of discrimination from faculty (18%), from activities (13%), and from direct threats or insults (15%). Globetti et al. (1993) found that while 59.8% of African American students had given a great deal of thought to recent incidents of campus bias, only 18.2% of White students had. The study found that 38.1% of White students were "tired of minorities always claiming discrimination when things don't go their way" compared to only 3% of African American students. Only 3.2% of African Americans believed that "too much is being made about racial incidents compared to 12.2% of Whites (Globetti, Globetti, Brown, & Smith, 1993). McClelland and Auster (1990) found that White students were more likely than African American students to report friendly relations between the races and to be less sensitive to possible tensions in the racial climate. Neville and Furlong

found that race and ethnicity accounted for more differences in racial attitudes and social behaviors among first-year college students than treatment conditions (Neville & Furlong, 1994).

In addition to continuing campus concerns about racial climate, researchers also documented campus incidents around sexual orientation. The first national LGBT campus climate survey, conducted in 2003, found that 33% of students experienced some form of harassment with 11% indicating physical violence on the basis of perceived or actual sexual identity. Survey respondents characterized the overall climate on campus as homophobic with many respondents acknowledging that they did not reveal their identity in order to avoid discrimination (Rankin, 2003). The first national report by the Q Institute for Higher Education, released in the fall of 2010, found nearly a quarter of LGBT students and campus employees had experienced harassment on campus. More than half indicated having observed or perceived harassment (Rankin, 2010).

As the population of out LGBT students on college campuses increased, a growing number of campuses began to recognize a responsibility to provide support services. In 2000, membership in the National Consortium of Higher Education LGBT Resource Professionals included 75 colleges. By 2011, that number had increased to 175 (Lipka, 2010). Campus Pride maintains a national standard of LGBT- and ally-inclusive policies, programs, and practices. According to Rankin (2010), only about 2% of U.S. institutions of higher education had campus offices or centers to address LGBT issues in 2003. Although that percentage had doubled by 2010, many critics continued to describe space for campus LGBT support services as frequently insufficient.

Legal and Legislative Decisions about Race and Sexual Orientation

While the public and campus debates about how diversity should enter the curriculum set against demographic and climate shifts were occurring in colleges and universities, critical legal debates and decisions were also in the courts. Subsequent to the 1954 *Brown* ruling, landmark Supreme Court decisions and critical socio-political events have affected institutional policy, campus climate, and campus conversations about race and sexual orientation. The 1978 landmark case Regents of the University of California v. Bakke, while ruling against racial admissions quotas, the U.S. Supreme Court ruled in favor of promoting educational diversity in the student body as a compelling interest. Affirmative action programs which did not employ fixed quotas were upheld by the ruling. Bakke remained the law of the land until the 1990s. In Hopwood v. Texas (1996), the U.S. Court of Appeals for the Fifth Circuit challenged Bakke and eliminated race-conscious admissions in Louisiana, Mississippi, and Texas. Two cases involving the University of Michigan, Gratz v. Bollinger and Grutter v. Bollinger, were filed in 1997. The legal issue of the first case concerned whether the use of racial preferences in undergraduate admissions violated the Equal Protection Clause of the Fourteenth Amendment. At issue in the Grutter case was whether diversity was a compelling interest to justify a narrowly tailored use of race in the application process. While the *Gratz* decision ruled that points could not be assigned to applicants based on race, considerations of race could be a "plus" factor in an individualized evaluation of applicants. In Grutter v. Bollinger (2003), the U.S. Supreme Court upheld raceconscious admissions policies of the University of Michigan Law School. Grutter found that race can be one of many admissions factors considered by colleges and universities because it supports a "compelling interest in obtaining the educational benefits that flow from a diverse student body".

In 2003, the same year as the Supreme Court decision to uphold the affirmative action program at the University of Michigan Law School and the reaffirmation of the compelling interest of diversity in higher education, the Court ruled in *Lawrence v. Texas* to strike down a Texas law which prohibited consensual relations between same-sex adults. These successes were almost immediately followed by the November 2004 passage of eleven anti-gay marriage amendments to state constitutions². With these ballot initiatives and referenda, along with the support of then-President George W. Bush, the nation witnessed a fury of legislative action toward federal and state marriage amendments which would constitutionally ban same-sex marriage. Election outcomes crossed onto college and university campuses as some administrators began to publicly assert their campus intentions to stand by their existing policies to provide benefits to same-sex partners of campus employees (Pawelski et al., 2006).

The battle for access to the right to marry continued to wage in the media, voting booth, and the nation's rhetoric (Egan et al., 2008). The years following this initial marriage legislation were witness to an increase in public support for gay marriage in all 50 states (Gelman, 2009). Powell (2010) found that between 2003 and 2010 the number of people who adamantly opposed gay marriage declined from 45% to 35%. In addition to changes in public sentiment about access to marriage, the nation had begun to experience changes to workplace acceptance. By 2007, more than 2000 corporate employers and 570 campuses had implemented nondiscrimination policies that included sexual orientation, and 350 corporate employers and 86 campuses had included policies that included gender identity (Cook & Glass, 2008).

While public sentiment and state policy concerning marriage were front and center, policies within the U.S. armed services also came under judicial review. Don't Ask, Don't Tell

² Arkansas, Georgia, Kentucky, Michigan, Mississippi, Montana, North Dakota, Ohio, Oklahoma, Oregon, and Utah

(DADT), recognized as a compromise measure between President Clinton's efforts to lift the ban on homosexuals serving in the military and conservative efforts to reinforce the ban, were passed in 1993. DADT prohibited any homosexual or bisexual person from disclosing his or her sexual orientation, from speaking about any homosexual relationships, and from engaging in homosexual conduct while serving in the armed forces. DADT was the law from 1993 until the passage of the DADT Repeal Act of 2010.

Again with implications for definitions of and access to marriage, in June of 2013, the U.S Supreme Court issued two rulings. In *United States v. Windsor*, it ruled unconstitutional the Defense of Marriage Act (DOMA), enacted in 1996 to define marriage as a union between one man and one woman. In a separate ruling (*Hollingsworth v. Perry*), it declined to take on the broader issue of same-sex marriage. Although public sentiment and public policy were shifting, by the start of 2014, 33 states continued not to support marriage equality, and 29 states had no policies for protecting LGB individuals from employment discrimination. States continued to debate and challenge the rights of marriage, leading up to the June 2015 landmark Supreme Court ruling in Obergefell v. Hodges requiring all states to issue a license to marry between all people of the same sex and to recognize same-sex marriages validly performed in other jurisdictions.

The profound effect of the circumstances leading to these landmark Supreme Court cases and their ultimate decisions should be viewed as a critical part of the fabric of the college student experience. The court decisions and the public discussion surrounding these cases would certainly have informed student opinion and campus debate in the time periods studied in this study. As an example, during the time of the 1990-1992 cohort's college experience, Cheryl Hopwood filed a federal lawsuit against the University of Texas (1992), first suits were filed

petitioning for access to marriage (in Hawaii in 1990) setting off the progression of legislative and legal rulings through the subsequent years. Similarly, during the time of the 2000-2002 cohort's college experience, and in an era with the introduction of a 24-hour news cycle and the accessibility of the Internet, students could follow the debates surrounding Lawrence v. Texas, Gratz v. Bollinger, and Grutter v. Bollinger cases. These students were coming of age during the passage of Defense of Marriage Act (DOMA) and Don't Ask, Don't Tell, and both policies remained the law of the land throughout their college experiences. In addition to the importance of considering legal rulings that specifically inform campus policies and practices, these additional rulings inform the social conversations of the cohorts in this study, specifically around the issues of race/ethnicity and sexual orientation. Similarly, the Los Angeles riots of 1992 following the acquittal of police officers in the assault of Rodney King factor into the landscape for the students in this study. This same period was marked by welfare reforms which some have argued led many to draw connections between race and welfare (Blinder, 2007). During the 1990s and into early 2000s, society was confronting increased violence, increases in economic and political polarization, discourse on political correctness, impending terrorism, and the start of two wars (Pope, Mueller, & Reynolds, 2009). The late 1990s also saw a period of increased policymaking and legal reforms to strengthen and promote heterosexual marriage (Bogenschneider, 2000). As AACU (1995) noted, "Students carried these realities with them on the campuses like books in their backpacks" (p.11).

The University of Michigan Context

By focusing analyses on University of Michigan student experiences, this study is able to consider the effects of diversity coursework on student attitudes about race/ethnicity and about

sexual orientation for cohorts separated by a decade of significant social, political, and cultural change on a college campus that has remained in the nation's spotlight due to its efforts to champion diversity. University of Michigan President Mary Sue Coleman (2002-2014) described Michigan's national voice in campus diversity efforts stating, "we have been doing this work for a long, long time at Michigan, and we are known throughout the country for our leadership in diversity" (Gnagey, 2007). Indeed, the University has a well-documented emphasis on diversity. In 1987, President James Duderstadt (1988-1996) released a document, informally known as the "Michigan Mandate," that laid out the university's values, goals and strategies for diversity, including several qualitative and quantitative objectives to foster diversity in faculty and staff recruitment and development, student recruitment and achievement, and the university environment (The Michigan Mandate Report for the President, 1992).

Beginning in 1991, students in the College of Literature, Science, and the Arts (the academic home to the majority of undergraduates) were required to enroll in and complete at least one approved Race and Ethnicity (R&E) course. The University was a national leader in formalizing this kind of curricular requirement. At the time this requirement was instituted, fewer than ten peer institutions were considering adopting comparable requirements (University of Michigan College of Literature, 1990).

The University's curricular and policy changes were overshadowed in the mainstream media by several very public challenges. The University stood in the nation's spotlight as two cases were heard by the Supreme Court in 2003, and the subsequent decisions to uphold the affirmative action program at the University of Michigan Law School and the reaffirmation of the compelling interest of diversity in higher education reaffirmed the University's commitment to diversity and to members of its diverse community (Allen, 2005; Gurin, 1999a, 1999b; Gurin,

Lehman, & Lewis, 2004). The University's commitment to diversity was again tested by the 2006 state-wide ballot initiative Michigan Civil Rights Initiative (MCRI) (known locally as Proposal 2), which was passed into Michigan constitutional law by a 58% to 42% margin (Worthington et al., 2008). The legislation ended consideration of race, sex, or religion in admission to colleges, jobs, and other publicly funded institutions. In a campus lecture, Shirley Malcolm, then head of the American Association for the Advancement of Science (AAAS) Directorate for Education and Human Resources Programs, described the role that the University played in the nation when she stated, "This university sits squarely in the eye of the storm" (Malcolm, 2006).

Understanding the campus context with regard to sexual orientation is also important for the current study. In 1971, the University of Michigan became the first university in the nation to provide support to its gay, lesbian, and bisexual students with the opening of the lesbian-gay male office. In an effort to assess campus climate for the LGB community, the University of Michigan commissioned a study that resulted in a 1991 report entitled *From Invisibility to Inclusion*. This report, also known as the *Lavender Report*, indicated that campus harassment and discrimination based on sexual orientation were both common and frequently unreported (University of Michigan Study Committee on the Status of Lesbians and Gay Men, 1991). According to the report, one in every eight reports of harassment were based on sexual orientation, mostly verbal or written harassment. The Office of Student Orientation staff found that student comments about discrimination based on sexual orientation were markedly different from those based on race or gender. ³

³ At the time of the *Lavender Report*, University of Michigan families of lesbian and gay men were excluded from major benefits (e.g., health insurance and subsidized housing). The University of Michigan revisited the status of the LGBT community with its follow-up study. In 2004 a report entitled *From Inclusion to Acceptance: Report of the Task Force on the Campus Climate for Transgender, Bisexual, Lesbian, and Gay (TBLG) Faculty,*

Following the release of the Lavender Report, in 1993, sexual orientation was officially added to the U-M non-discrimination policy. Since 2000, the College of LSA has offered a 15-credit undergraduate minor in Lesbian, Gay, Bisexual and Transgender Studies (located in the Department of Women's Studies). This undergraduate minor is designed to introduce students to the field of lesbian, gay, bisexual, transgender, queer, and sexuality studies and provide a critical curricular resource allowing students an opportunity to explore how various practices, institutions and beliefs intersect with sexualities.

Charting the Path from Tolerance to Change

Although many studies continued through the 1990s and 2000s to show strong support among respondents for higher education's role in promoting tolerance, the concept of tolerance itself has become increasingly problematic (Guthrie, 1996; Vogt, 1994). The term is often disparaged because many believe that it falls short of the "complex, multifaceted ideal" of openness that is both desired and intended (Guthrie, 1996, p. 2). The term can be "offensively inadequate, especially to the people who are the objects of social tolerance" (Vogt, 1994, p. 291). The language associated with tolerance often emphasizes the need to move *beyond* tolerance, stressing that tolerance is an insufficient goal (e.g., Balenger, Hoffman, & Sedlacek, 1992, p. 251). In spite of its semantic limitations, the concept of tolerance is well represented in the higher education rhetoric, theory, and research. Jennifer Granholm, Governor of the State of Michigan (2003-2011), succinctly argued for the relationship between institutions of higher education and the teaching of tolerance when she stated after the 2003 Supreme Court decisions

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Staff, and Students was released. Although subsequently threatened by the passage of the State of Michigan "Marriage Amendment", by the time of the 2004 follow-up report, the provision of domestic partner benefits was extended to gay and lesbian couples.

involving the University of Michigan, "There is no better place than a university campus populated with a rich cross-section of America's people to teach tolerance and to utilize our differences as levers to open minds and hearts."

Also, higher education scholars have addressed the meaning and value of tolerance. Astin (1993b) suggested that "a frequently stated purpose of liberal education is to promote greater tolerance and open-mindedness among students (p. 146). Chickering's theory of student development identified "increased tolerance for those of different background, habits, values, and appearances, and a shift in the quality of relationships with intimates and close friends (Chickering, 1969, p. 94). Pascarella and Terenzini (1991) extended this concept to consider tolerance to involve "greater openness and acceptance of diversity" (pp. 21-22). Later, Chickering and Reisser (1993) defined tolerance as the "capacity to respond to others as individuals rather than stereotypes" (p. 148). They saw the effect of tolerance as enabling "students to bridge gaps, to be objective, to transcend boundaries by gaining a clearer view of unknown customs and values, and to understand how labeling, stereotyping, or discrimination can diminish community" (p. 146).

Guthrie (1996) likened the definition of tolerance with the intentions of higher education institutions to help students learn about the needs of others, a world perspective, civic and social responsibility (Boyer, 1987; Guthrie, 1996; Pascarella & Terenzini, 1991). Vogt (1994) identified some consensus that "tolerance involves support for the rights and liberties of others, others that one dislikes, disapproves of, disagrees with, finds threatening, or towards whom one otherwise has a negative attitude" (p. 273). Guthrie (1996) later offered a helpful definition of tolerance:

Tolerance is a cognitive attitude of openness, inclusion, and respect for persons that is extended to others regardless of perceived individual differences based upon factors such as race, religion, ethnicity, gender, sexual orientation, ableness, or other socially created differences. It is a way of regarding others that develops to represent both a moral ideal and a morally obligatory duty; it enables us not to draw distinctions where we shouldn't (cited in Guthrie, 1996, p. 12).

While we must acknowledge the limitations and challenges associated with tolerance, researchers have continued to show strong support among respondents for higher education's role in promoting tolerance as well as documenting the relationship between campus diversity efforts and changes in expressions of student tolerance and changes in their attitudes. While current rhetoric and research extend beyond discussions of tolerance to focus on changes in attitudes and behaviors, it remains important to recognize this critical concept that guided much research through the 1990s.

Chapter 3 Literature Review

The review of the literature in this chapter summarizes the relevant research that addresses the effects of pre-college background characteristics, the college experience, and the factors that contribute to the development of campus diversity interventions and the impact of these interventions. This literature overview culminates in a conceptual framework by which the principal research questions of this study will be examined. In this literature review, consistent effort is made to include studies and analyses that address the timeframes examined in this study.

Sociodemographic Characteristics

The ways undergraduates participate in their college environments are often affected by experiences and identities formed prior to college (Weidman, 1989). Researchers have long considered the importance of controlling for student background characteristics when examining the impact of college (Astin, 1993b; Feldman & Newcomb, 1969; E.T. Pascarella & Terenzini, 1991), and this has become standard practice in college impact research. Theorists have also considered the importance of a selection effect (Feldman & Newcomb, 1969), where the degree to which students change during college must be considered in contrast to how students are at the beginning of their college experience.

Among the background variables often taken into consideration, researchers include gender⁴ and race/ethnicity. Numerous studies examining diversity within higher education suggest that women are associated with more favorable attitudes regarding race/ethnicity and regarding sexual orientation. Researchers have consistently found college women are less prejudiced than college men, more accepting of racial minorities, egalitarian gender roles, and homosexuals (Engstrom & Sedlacek, 1997; Herek, 1989; Kite, 1992a, 1992b; Marsiglio, 1993; Qualls, Cox, & Schehr, 1992; Saad, 2007; Whitt, Edison, Pascarella, Terenzini, & Nora, 2001) and that they become more accepting as they progress through college than their male colleagues (Astin, 1993b). In two studies involving University of Michigan students, female students were shown to enter college more accepting than male students, increase their acceptance to a greater extent than male students during the college years, and demonstrate higher levels of entering tolerance (Kardia, 1996; Taylor, 1994). Taylor (1994) found that female students experience nearly three times the gains in tolerance that male students experience during the first two years of college. At the same time, Taylor found men were more likely to be affected by perceptions of campus racial conflict.

In addition to measures of gender and race, measures of social class are used in social science research as important background variables. Researchers attempt to measure economic and educational experience, as well as social and cultural capital (Chan & Goldthorpe, 2007; Smith, 2009; Zandy, 1996). External evaluators of campus diversity efforts (e.g., The James Irvine Foundation Campus Diversity Initiative, 2006) have argued that understanding socioeconomic status is critical to examinations of what is and is not working in campus diversity

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⁴ Although more recent research in the area of gender and sexual orientation take into account a more fluid continuum and growing understanding of transgender and bisexual identities (S. R. Rankin, 2010; D. G. Smith, 2009), the current analyses rely exclusively on a binary definition, which is consistent with the available data.

initiatives. Researchers often rely on mother's education level as a proxy measure for socioeconomic status. For example, mother's education has been associated with a significant indirect effect on student racial attitudes (Smith, 1992) and a significant direct effect on women's general tolerance levels (Taylor, 1994). Additionally, a lower socioeconomic status has been associated with the development of less acceptance for sexual diversity (Herek, 1984a).

Academic ability is another typical measure of the pre-college social development of students. Standardized test scores are most frequently the measure used in examinations of undergraduate and graduate students' academic ability. Use of standardized test scores consistently come under scrutiny in both the mainstream media and higher education research, especially the correlation of test scores with economic background and the average income of the neighborhood in which the examination is taken (Helms, 2006; Smith, 2009). Standardized admission test scores have been shown to be related to both individual and school-level background variables (Sackett, 2009). Zwick found that admission test scores demonstrate stable socio-economic status differences back to the fourth grade (Zwick, 2004). Measures of academic preparedness are associated with socio-economic status, and socio-economic status is related to admissions test scores (Sackett, 2009). In fact, Sackett and colleagues found that socio-economic status had a near zero relationship with grades other than through the socio-economic status-testgrade chain of relationships (Sackett, 2009). In addition to the relationship with socio-economic status, standardized test scores are scrutinized for their often inaccurate measurement of ability in terms of gender. Analyses of SAT scores have historically found that women receive lower test scores but that they perform better in college courses (Smith, 2009). Researchers have found a positive relationship between SAT scores more positive LGB attitudes (Engberg, Hurtado, & Smith, 2004).

Pre-College Experiences

In addition to socio-demographic measurements, understanding the neighborhood and high school environments students experienced before college can lend a helpful interpretative lens for understanding attitudes toward diversity. Researchers have identified the importance of external social influences (e.g., parents and friends) in the development of democratic skills and have stressed the need to account for these sources of social influence along with the preenrollment characteristics of students (e.g., background and pre-college socialization) (Hurtado, Milem, Allen, & Clayton-Pedersen, 1999; Weidman, 1989). Because many students enter college from relatively segregated environments and highly segregated high school environments (Adams, 2002; Balenger et al., 1992; Orfield, Bachmeier, James, & Eitle, 1997; Orfield & Kurlaender, 2001; Smith et al., 1997), it is important to consider this context when analyzing how students interact with diversity in college. Growing up and being educated in largely monocultural neighborhoods and high schools does not prepare students adequately for the diverse social groups, the complex intergroup conflicts, and the multicultural curricular content they are likely to encounter during their college experiences (Adams, 2002). Higher education often provides students with their first engagement with diversity and with cross-racial interaction (Chang, 2002) and first sustained exposure to an environment different from their home and high school contexts (Gurin, 2000). Banks (1993) argues that most U.S. college students are "socialized within communities that are segregated along racial, ethnic, and socialclass lines [with] few opportunities to learn firsthand about the cultures of people from different racial, ethnic, cultural, religious and social-class groups" (Banks, 1993, p. 7-8).

Students who attend well-integrated schools have more opportunity for cross-racial contact before entering college (McClelland & Auster, 1990). Hurtado et al. (2002) showed that

the frequency of interactions students have with diverse peers prior to entering college is a positive, significant predictor of perspective-taking, beliefs that conflict enhances democracy, and the importance students place on taking social action. Researchers have found that incoming students of color are more likely to report having lived in a diverse neighborhood (Carter & Sedlacek, 1984; DYG Inc., 1998) and are significantly more likely than White students to report interacting across race/ethnicity during college (Hurtado et al., 1994). Studies have found that White students from predominantly White neighborhoods are significantly less likely to interact with someone from a different racial or ethnic background (Balenger et al., 1992; Carter & Sedlacek, 1984; Hurtado, Carter, & Sharp, 1995). In support of the corollary, McClelland and Auster (1990) identified a pattern of White students who attended racially mixed high schools were more willing than their colleagues from predominantly White high schools to consider dating or marrying across race.

Because of the focus of the current study on University of Michigan students, studies that have examined their neighborhood and high school diversity can be illustrative. Most Michigan residents live in neighborhoods that are not diverse racially or ethnically (Gurin, Lehman, et al., 2004). About 90% of White students and 50% of African American students grew up in racially homogeneous neighborhoods and attended racially homogeneous high schools. A significant portion of under-represented students at the University of Michigan come from Detroit, a city that is more than 80% African American and often considered one of the most segregated U.S. major cities (Herring, November 15, 2006). In fact, Detroit was more segregated in 1990 than it was in 1960 (Gurin, Lehman, et al., 2004). Thomas Sugrue, in his expert testimony provided to the Supreme Court on behalf of the University of Michigan's defense of its admission policies, indicated that applicants from Michigan, New York, Illinois, California, New Jersey, and Ohio,

where about 75% of University of Michigan students come from, the typical White student went to high school with no more than 7% African American students. Sugrue cited work of Reynolds Farley showing that 17 of the nation's 20 largest cities had predominantly minority school districts surrounded by White suburban school districts. "These public schools are almost as racially segregated as those which were constitutionally permitted before the 1954 *Brown* decision" (cited in Gurin, Lehman, et al., 2004, p. 103).

In addition to the community of origin, researchers have also considered students' openness to diversity. Students who begin college more open to diversity have been shown to be more likely to have culturally diverse acquaintances, and to discuss issues of race, ethnicity, or culture during college (Pascarella, Edison, Nora, Hagedorn, & Terenzini, 1996) and more likely to select diversity courses that expose them to culturally diverse points of view (Taylor, 1994) if they come to college predisposed to a broader world view. Studies have also shown the positive influence of high school participation in diversity activities (e.g., Hurtado, Engberg, Ponjuan, & Landreman, 2002). This openness has been identified as an especially important characteristic for White students, who are shown to have positive attitudes of racial tolerance (Flynn, 2005). The National Study of Student Engagement found that University of Michigan students were more likely than their peers at other campuses to talk with students of other races, religions and faiths whose political values differ. Entering college with the pre-disposition to interact with diverse peers and to experience a diverse environment contributes to students engaging with diversity once they are on campus.

Religiosity is another pre-college measure that can provide helpful insight. College students who consider themselves to be connected to an organized religion can experience tension between their religious beliefs and their emerging values (Kardia, 1996; Taylor, 1994).

This tension may be most profoundly experienced, and of particular interest in this study, in the relationship between religiosity and attitudes toward sexual orientation. Religiosity and conservative politics became increasingly aligned from the 1970s through the 1990s (Putnam, Campbell, & Garrett, 2012; Wolfe, 1998). Studies have found that people with negative attitudes toward the LGBT community are more likely to be religious, to attend church regularly (Henley & Pincus, 1978; Saad, 2007), and to follow a conservative religious ideology (Bannister, 2000; Brumbaugh, Sanchez, Nock, & Wright, 2008; Finlay & Walther, 2003; Herek, 1984a, 1987; Larsen, Cate, & Reed, 1983; Lewis, 2003; McFarland, 1989; Obear, 1991; Olson, Cadge, & Harrison, 2006; Schulte & Battle, 2004; Whitley Jr, 2009). Non-religious individuals routinely showed more positive attitudes about LGBT individuals (Herek, Capitanio, J., 1995; Lemelle, 2004).

In fact, across multiple study methodologies and various conceptualizations of religion, religiosity is continually associated with more negative attitudes toward LGBT individuals. That said, however, considerations of the effect that religiosity can have on attitudes of sexual orientation can be complex. Studies showing effects of religiosity on attitudes about sexual orientation, homosexuality, LGBT individuals (and by extension in the current environment - marriage equality) examine frequency of attendance at religious services, affiliation with specific religious denominations, spirituality without religious affiliation (Funk & Smith, 2012), and the degree of importance people attach to religion or to spirituality in their lives.

Some researchers have found a relationship between race and religion to explain negative attitudes about sexual orientation in general and marriage equality in particular. Specifically, researchers have shown a strong relationship between African American ties to sectarian Protestantism and high rates of church attendance with negative attitudes about sexual

orientation (Egan & Sherrill, 2009; Olson et al., 2006; Sherkat, De Vries, & Creek, 2010; Sherkat, Powell-Williams, Maddox, & De Vries, 2011; Van Geest, 2007). By controlling for socio-economic background, church attendance, and religious commitment, some researchers have shown that negative attitudes about sexual orientation by African American college students are eliminated (Brumbaugh et al., 2008; Negy & Eisenman, 2005). Religiosity and political conservatism can mediate the relationship between race and attitudes about gay marriage. Other studies have distinguished between African American negative attitudes about homosexuality but more positive attitudes about civil rights for LGBT people (Lewis, 2003).

Researchers have also examined the relationship between religiosity and interacting with gay people. Lewis and colleagues identified a difference based on religious denomination and knowing someone gay. Overall, 58% of Jewish respondents and 57% of non-religious respondents knew someone gay, compared to 47% of Catholics and 43% of Protestants (Lewis, 2003; Lewis, 2008). People strongly opposed to homosexuality on religious grounds have been shown to avoid contact with LGBT individuals and likely to be unaffected by interactions when such interactions occur (Barth, Godemann, Rieckmann, & Stoltenberg, 2007; Lewis, 2008). Social contact was positively associated with marriage equality even after controlling for religiosity and political ideologies (Becker, 2012). Researchers have also found that the effects of religious conservatism on sexual prejudice can be reduced with high levels of contact (Cunningham & Melton, 2012).

To understand how such findings apply to the timeframe of the current study, it is important to keep in mind the growing national trend toward faith-based politics (Wolfe, 1998). During the timeframes represented in the current study, a national dialogue stressed the struggles among religious conservatives and the increasingly vocal LGBT community. University students

In the current studies were likely aware of the public attention to the heresy trial in the Episcopal Church following its recognition of same-sex unions and the ordination of the first openly gay bishop. Those challenges reached a height in 1996 and continued until the formalized schism by 2009. Similarly, university students in the current studies are likely to have been aware of the public dialogue leading up to the state of Michigan's 2004 ballot initiative for a constitutional ban on same-sex marriage, during which religious groups actively raised funds in support of the ban (Luke, 2004). Using national data, Engberg and colleagues (2004) found that religious activities in high school exerted a strong negative influence on attitudes for sexual orientation at college entry and at the end of the sophomore year. Discussions of religiosity, including the broad definitions already discussed, need to bear in mind the development of personal values and struggles when these values develop in opposition to familial values during the college years.

College Influences on Student Development

The college years are a well-recognized period of transition when students begin to understand self, society, and their place in society (Hoover, 2011; Schoem & Knox, 1988). In their extensive review of the literature, Pascarella and Terenzini conclude that attending college changes students' values and attitudes in measureable ways that are separate from normal maturation (Pascarella & Terenzini, 2005). Erikson's work provides us with eight stages of psychosocial development in which people are presented with crises that need to be resolved. Successful resolution of the crisis enables the individual to move forward and face new challenges. The typical stage associated with college-aged individuals is stage five, or "identity versus identity confusion" (Erikson, 1963). Perhaps more than at other stages in life, individuals are more open to change and experimentation, and different perspectives. Keniston (1965), a

student of Erikson, saw the college years as a time when students find out who they are, what they believe in, and why.

During college, students are exposed to social, political, and personal experiences that challenge their existing view of the world, themselves, and their place in the world. Researchers have suggested that racial events, especially those that are widely experienced, can have a lasting impact on people between 18 and 25 (Alwin, Cohen, & Newcomb, 1991; Sears, 1983; Sears & Levy, 2003).

In their study of students' first year college experiences, Schoem and Knox stated:

The first year of college produces the kind of anomaly in life that creates the greatest production of new experiences in the lives of students. Rising above the familiar patterns of home and community, the first year of college places the student in a completely new environment fertile with possibilities. The student joins many others similarly seeking a niche, enjoying the benefits of the diversity amid curriculum plans and the happenstances of everyday problems (Schoem & Knox, 1988, p. 97).

The college years provide a rich opportunity for discovery and change. Researchers who conduct follow-up studies with students at later stages in life consistently find that changes that occur during this critical period remain stable across a lifetime.

Piaget (1975, 1985) described a kind of "discrepancy" required to encourage cognitive growth. The work of Perry and other cognitive developmentalists connect the development of intellect and cognitive ability through a process with points at which the individual is able to make sense of the world, to think, and to reason (Chickering & Reisser, 1993; Ortíz, 1995). Psychosocial theories are characterized by an emphasis on age progression and sociocultural influences. According to Chickering and Reisser (1993), "significant human development occurs

through cycles of challenge and response, differentiation and integration, and disequilibrium, and regained equilibrium" (Chickering & Reisser, 1993, p. 476). Movement through the seven different vectors leads individuals to become more aware of their own identity and how this identity relates to other people's identities and cultures.

The five-stage transformation system developed by Virginia Satir can also be helpful to the understanding of disequilibrium. Satir's change model speaks to the chaos or disequilibrium associated with moving from the status quo to an integrated, higher level of development. Satir has posited a five-stage model which includes (1) status quo; (2) foreign element; (3) chaos; (4) practice and support; and (5) integration (Banmen, Gerber, Gomori, & Satir, 1991). The "status quo" refers to our predictable patterns of thinking. The status quo becomes disrupted by some kind of foreign element. Chaos can be experienced as confusion or disorder. This chaos is resolved through practice and support. Opportunities to learn and develop new skills and attitudes can lead to a new level of integration or a higher level of development. By applying this model to diversity efforts in higher education, we begin to understand how the status quo can become disrupted by new information, new ideas, or new understandings that come by way of enrollment in a diversity course.

Weidman (1989) proposed a model that describes the process of value development.

Weidman's model stresses the influences that affect students through formal and informal social processes. In a similar vein, Dovidio and colleagues posit that certain types of educational interventions (e.g., multicultural courses) have the ability to reduce bias through their emphasis on both diversity content, which they refer to as "enlightenment", and interactions with peer groups, which they refer to as "encounter". Both enlightenment and encounter experiences

trigger different internal processes which in turn stimulate the development of more positive intergroup attitudes (Dovidio et al., 2004).

Analyses of diversity interventions have frequently applied such college impact models as Astin's (1984, 1985) theory of student involvement, where gains in college outcomes are a direct function of student involvement. Astin's (1993) (input-environment-outcome or I-E-O) model accounted for student characteristics at entry, institutional characteristics, student experiences in college, and student characteristics upon exit. The model directly addresses student change along affective dimensions (attitudes, values, and beliefs). Weidman's (1989) conceptual model of undergraduate socialization supplies specific constructs by which to measure the "inputs" and "environments" in an empirical inquiry. The Astin model has been used for more than three decades to study student change and development. Astin's model argues that efforts to measure the college environment will be biased unless care is taken to control for as many student inputs as possible. Students enter colleges with different backgrounds and prior experiences. They enter at various stages of personal development. The Weidman model is a comprehensive college impact model designed specifically to examine affective outcomes. Weidman sees the model as a "consideration of socializing influences experienced by undergraduates from a variety of sources, both within and external to the postsecondary institution" (Weidman, 1989, p. 290).

A related model developed by Chickering and Reisser (1993) recognized four sources of influence to understanding the impact of college. These included the initial or pre-college enrollment characteristics of students; the organizational or environmental emphases of the institution attended; students' academic experiences; and students' social or non-academic experiences. Appel et al. (1995) referred to this model as one of the most promising for

evaluating diversity impact because it not only emphasizes student growth and change over time rather than a point in time but also emphasized the environmental factors that influence outcomes.

Gurin, Dey, Hurtado and Gurin (2002) applied theories of cognitive psychology to their research of the impact of diversity on learning and democracy outcomes. They cited Erikson's (Erikson, 1946; Erikson, 1956) claims that identity develops best when young people are provided a "psychosocial moratorium" or an opportunity for experimentation before making permanent commitments to their philosophies, views, and concepts of society and life. This discrepancy can be caused when individuals encounter experiences and demands that they cannot completely understand (Gurin, Nagda, et al., 2004). Gurin et al. argue that higher education provides an ideal opportunity for this moratorium and that it should "ideally involve confrontation with diversity and complexity" (Gurin et al., 2002, p. 333). The college years represent a critical stage in development because students begin defining themselves in relation to others and experimenting with different social roles (Gurin, 2000). Complex thinking occurs when people encounter a novel situation for which they have no pre-existing script (Gurin, 2000).

Jordan (1989) captured the essence of student attitude development during the college years:

Attitudes may be the things which last after facts have eroded...Since the day they have entered college, students have been growing, and the reasons for which they entered college may have evolved to the point of being totally different. Professors present new ideas, and old, family-induced values are challenged by the inevitable newness of things.

Equally, valuations mature though life long after dates and formulas have been forgotten (Jordan, 1989, p. 119).

College Influences on Student Attitudes about Sexual Orientation

Researchers and theorists have long established how the college years are ripe for helping us define who we are and what we value. When issues are also evolving on a national landscape, a particular richness of opportunity for growth occurs. Understanding how student attitudes about sexual orientation develop during the college years is important to the current study, and the complexity of the situation deserves careful consideration. Students' attitudes about and understanding of their own sexuality are developing during these critical college years (Bell, Weinberg, & Hammersmith, 1981; Evans, 1991; Levine & Evans, 1991). Rhoads contends, for example, that most gay students have not come out by the time that they enter college, making college life represent freedom from parents and high school social networks (Rhoads, 1997) balanced against the inner-struggle of when, how, and to what extent to disclose one's sexuality (Beagan, 2001; Yoshino, 2006). Attitudes about sexual orientation and how those attitudes fit with previously held (and often informed by one's family) values are likely to be challenged during the college years.

Researchers have addressed the confluence of race and sexual orientation. African Americans have been shown to express more homophobic and anti-gay attitudes than Whites (Lewis, 2003; Marsiglio, 1993). Lewis's (2003) meta-analysis of 31 studies found African Americans to be significantly more negative about homosexuality than Whites, controlling for education and religiosity, but significantly more supportive of gay civil rights. In the 2000 California Proposition 22 ballot vote (ban on gay marriage), a Los Angeles exit poll showed that Latinos were slightly more opposed to extending marriage rights to homosexuals, Asian/Asian-

Americans and Whites were less opposed, and African Americans were in the middle (Stewart-Winter, 2008). Kim and colleagues examined student attitudes of sexual orientation based on racial/ethnic background at the University of Hawaii at Manoa (Kim, D'Andrea, Sahu, & Gaughen, 1998). They found that Caucasian students (55.5% of the sample) had more accepting views than the Japanese American, Filipino American, and Chinese American students in their sample. In his survey of members of the Texas A&M community, Noack (2004) found that the campus was considered more homophobic than racist or sexist. His study found that more African American students found the campus to be more homophobic, and Asian American students most perceived the campus to be non-homophobic. In a study of a large research university in the Midwest, Waldo (1998) found that White students described the campus as less negative to gay and lesbian students than did students of color (Waldo, 1998). Students of color also were found to be more supportive of policies, events, and interaction with homosexuals. Engberg and colleagues (2004) using the national data from the Diverse Democracy project found no effect for race on students' entering LGB attitudes.

Researchers have shown positive association between interactions with LGBT individuals and attitudes one holds about them (Pettigrew & Tropp, 2006; Smith, Axelton, & Saucier, 2009). For many students, their first direct experience with openly lesbian, gay, or bisexual people occurs in college (Noack, 2004). In terms of knowing someone who is gay, Lewis (2008) found differences by race. African Americans were four percentage points less likely than comparable Whites to know someone gay (Lewis, 2008). Kardia (1996) found interaction with lesbian, gay, and bisexual students to be a primary mechanism through which students' attitudes changed. Students, who entered college with negative attitudes toward sexual diversity, contact through casual acquaintances and classmates helped students reexamine prior

stereotypes and assumptions. For students who entered college with ambivalent or positive attitudes toward sexual diversity contact through close friends strengthened their acceptance.

LGBT students who are also members of racial minority groups felt less comfortable in their classes than their White counterparts (Lipka, 2010). Research has produced conflicting results regarding bias between homosexuals and racial minority groups. In examinations of race as a correlate for negativity toward sexual orientation, most studies have relied on the same types of attitudinal measurements as used in analyses of gender bias (Cotton-Huston & Waite, 2000; Engstrom & Sedlacek, 1997). Alcalay and colleagues (1990) conducted a telephone survey of a sample of adults in California. They found no significant differences in attitudes toward homosexuals within populations of Hispanics, African Americans, and Whites. Using data collected from the General Social Survey, Bonilla and Porter (1990) found that African Americans had more negativity than Hispanics and non-Hispanic Whites concerning the morality of homosexuality, but they had the highest level of support for the civil rights of homosexuals. Ernst et al. (1991) also found that members of the black community had the most negative attitudes toward the homosexual population (Ernst, Francis, Nevles, & Lemeh, 1991).

Educational attainment is repeatedly shown as one of the most powerful predictors of support for LGBT rights (Burdette, Ellison, & Hill, 2005; Lewis, 2003). In spite of continuing campus challenges, researchers continue to researchers find education to have one of the most consistent correlations with changes in attitude toward sexual orientation (Lottes & Kuriloff, 1994; Schellenberg, Hirt, & Sears, 1999; Simoni, 1996). Waldo (1998) found that as students progressed in their academic career, they became more aware of a negative environment for homosexual students and became more open to interacting with gay, lesbian, and bisexual individuals. This finding was supported by the research conducted by Strand (1998), who

examined exit poll data following Oregon, Colorado, and Idaho state initiatives aimed at repealing or limiting civil rights to homosexual citizens. Strand found that people with more education were more opposed to these state initiatives than people with a high school diploma. Engberg and colleagues (2004) found that students who entered college with higher SAT scores had more positive LGB attitudes. In a related finding, Lewis (2008) found that more educated people are more likely to know people who identify as gay. His results showed that one year of higher education increased the probability of knowing someone gay by 3.4 percentage points. In her analyses of University of Michigan students, Kardia (1996) found that the college experience provides important opportunities for students to understand sexual orientation and through these opportunities students become more accepting of sexual orientation by their fourth year.

Mission of Higher Education to Address Diversity

Commitment to diversity can be found in institutional policies, practices, programs, and services (Milem, Chang, & Antonio, 2005; Rankin & Reason, 2005). How students perceive the campus climate has been found to have a direct relationship with their satisfaction and their capacity to thrive. Researchers have investigated the role of an institution's commitment to diversity on various student measurements, including the importance of having a campus mission that includes diversity (Clayton-Pedersen, Parker, Smith, Moreno, & Teraguchi, 2007; D. G. Smith, 2011) and the role that mission has in developing student trust in the institution (Chang, 2002). Studies have linked higher perceived levels of campus commitment to diversity to student perceptions of lower racial tension, higher grade point averages, and increases in student-reports of personal goals to promote diversity (Milem et al., 2005). Researchers have found a relationship between student positive perceptions of the campus commitment to diversity and student learning outcomes as well as a perceived lack of campus support for diversity being

associated with negative effects on student learning (Aguirre Jr & Messineo, 1997; Whitt et al., 2001). Chang (1999) has argued that campuses need to show their commitment to diversity and provide opportunities for diverse interactions in order to optimize the benefits of diversity.

Students of color report lower levels of satisfaction with campus racial climates (Harper & Hurtado, 2008), and perceptions of a hostile campus climate have been directly linked to lower academic achievement for students of color (Hurtado & Ponjuan, 2005).

In one of the first state-wide surveys about campus diversity, a 1997 survey of 600 Washington voters, commissioned by the Ford Foundation, found that 72% of respondents believed that courses and campus activities that emphasized diversity were helpful to the educational experience of students. Eighty percent of respondents believed that the "changing characteristics of America's population make diversity education necessary." In 1998, the Ford Foundation commissioned the first national poll on diversity in higher education. The results showed that 71% of respondents believed that diversity education on college and university campuses helps bring society together, and 81% supported offering courses designed to help students understand bigotry and prejudice in the United States today and historically (American Council on Education, 1997; DYG Inc., 1998). Of particular interest to the current study, the survey also showed that most respondents exclusively interpreted diversity to mean race and ethnicity. In contrast, Wolfe's 1998 examination of public opinion found that white Americans who were sympathetic to multiculturalism did not support efforts requiring diversity be addressed. Across these studies, efforts to make institutional commitment to diversity both visible and unambiguous yield more positive student outcomes (Antonio, 2001, 2004; Chang, 1999a; Rankin & Reason, 2005)

College Curricular Experiences with Diversity

Early studies on academic diversity interventions examined ethnic studies programs, academic support programs, and social programs; early efforts were largely compensatory and driven by students and faculty activism to address previous invisibility (Astone & Nuñez-Wormack, 1990; Hu-DeHart, 1995; Hune, 2003; Minnich, 2005; D. G. Smith, 2009). The literature on the topic of academic interventions has included studies of course design and rhetorical pieces on the role of such courses within the curriculum (Curtis & Herrington, 1992; Larimore, 1993), the inclusion of diversity in teacher-education programs (Cochran-Smith, 1995), and curricular reform (Schoem, Frankel, Zúñiga, & Lewis, 1993). Studies tended to show the design of courses, how diversity was implemented into existing courses or added as a new course to the curriculum (Larimore, 1993).

The nation's colleges and universities have witnessed a rapidly growing body of research addressing diversity in higher education, how it is taught, where it enters the curriculum, and what impact these courses have on student learning and attitudes. Researchers have linked diversity in higher education with student performance and retention (Nettles et al., 1986; Tracey & Sedlacek, 1985); student satisfaction (Astin, 1993b; Cheng & Zhao, 2006; Engberg, 2004; Maruyama & Moreno, 2000); and importance placed on social interaction (Hurtado, 1994; Hurtado, Nelson Laird, Landreman, Engberg, & Fernandez, 2002). Student participation in campus diversity activities has been linked with such outcomes as voting behavior and development in moral reasoning (Hurtado, Mayhew, & Engberg, 2003); improved intellectual, cognitive, and social development (Appel, Cartwright, Smith, & Wolf, 1996; Chang, 1999a); increased openness to diversity (Pascarella et al., 1996); greater commitment to racial understanding (Astin, 1993a); persistence toward degree (Chang, 1996); openness to differences and commitments to social justice (Appel et al., 1996); and positive effects on racial bias

(Antony, 1992; Astin, 1993b; Chang, 2002; Gurin et al., 2002; Hurtado, 2001; Pascarella et al., 1996; Springer, Palmer, Terenzini, Pascarella, & Nora, 1996; Whitt et al., 2001).

In one of the first attempts to measure the prevalence of diversity coursework, Levine and Cureton found that more than one-third of the 196 colleges and universities surveyed had a multicultural general education requirement (Levine & Cureton, 1992). Eight years later, in a 2000 survey conducted by the Association of American Colleges and Universities, 63% of colleges and universities reported either having a diversity requirement or being in the process of developing one (Humphreys, 2000). This number has continued to climb with more faculty claiming that they include diversity in their courses, including in non-diversity-focused courses (Boysen, 2011; Nelson Laird, 2011)

Among academic diversity interventions, elements of diversity have been added to courses within the curriculum, those closely related to the humanities, and those in the hard sciences. Diversity courses are located in general education programs, special study programs, and within the core curriculum. They have been implemented at colleges and universities with varying size, type, control, and location and at both the undergraduate and graduate levels.

Although diversity courses vary in many ways, most of these courses introduce content and pedagogy intended to teach students to think more complexly, expose them to multiple perspectives, and actively engage them in an exploration of the ways in which oppression is manifested in society (Chang, 2002). Humphreys and Schneider (1997) identified the following major themes in diversity courses: 1) culture and identity; 2) prejudice, discrimination, and pursuits of justice; and 3) service learning. The American Commitments National Panel, created by the Association of American Colleges and Universities, recommended that every student's education should include studies in 1) experience, 2) identity and aspiration; 3) pluralism and

pursuits of justice; 4) justice seeking; and 5) multiplicity and relational pluralism. Humphreys and Schneider have argued that this combination would constitute the personal, societal, participatory, and dialogical perspectives of diversity.

Banks (2001) stressed the following intended goals of diversity courses 1) to gain a greater understanding of self and others (e.g., different cultural groups by race, ethnicity, gender, class); 2) to acquire and use skills, attitudes, and knowledge to function effectively within one's own and across cultural groups; 3) to master essential literacy, numeracy, thinking, and perspective taking skills; 4) to acquire and use the skills, attitudes and knowledge needed to reduce personal bias and prejudices, and to combat oppressive people, groups, institutions, and systems within society (Banks, 2001, p. 48). Humphreys (1997) also stressed the need for higher education to foster better communication of socio-cultural differences (Humphreys, 1997).

How these particular themes and goals are accomplished depends on a wide-range of possible curricular models. In recent years, higher education has witnessed a variety of models for diversity inclusion in the curriculum. Humphreys (2000) found that the most common model (68%) is where students are required to take one course among a list of different approved courses. This model has been criticized because the diversity requirement intervention would have variable effects depending on the specific course taken (Disch, 1993). Additionally, whether a course is taken as an elective or as a requirement may make a difference in how students learn, integrate, and apply the information. Students who enroll in a course by choice may be more receptive than students who are enrolled by mandate (Rios, 2010; Sevelius, 2003; Yoder, 2007). A related concern involves the issue of how courses become approved and by whom.

Another model involves the infusion of diversity across the curriculum. This approach often attempts to integrate diversity into a widely required course or a small number of courses (e.g., English composition). Some critics have challenged that this model can achieve little effect, and even backfire, and that more thorough integration is needed for adequate coverage of such complex issues (Botstein, 1991). Fewer institutions tend to implement the infusion model, perhaps due to faculty expertise or reluctance (Olguin & Schmitz, 1997). In Humphreys' (2000) study of campus diversity, only 17% of the institutions surveyed required all students to take a single course with a shared syllabus. Another 12% had a diversity requirement within one or more majors.

Comprehensive curricular transformation is another model. Curricular transformation has included the design and inclusion of courses with a diversity focus, those that include diversity among the areas of emphasis, and increased attention to differing learning styles of students in the classroom. Curricular transformation involves rethinking the fundamental assumptions about knowledge and about the ways we teach (Smith, 1990b).

Smith (2009) has argued that the inclusion of diversity content within the curriculum has a "profound impact on student learning for all students, who need to understand a broader conception of the development of scholarly thinking and need to know more about our social contexts than might have been true decades ago. Engaging class, sexual orientation, gender, race, and ethnicity is pertinent for all learners, not just those form a particular group" (Smith, 2009, p. 223).

Much of the literature on diversity courses has tended to focus on race and ethnicity.

Rankin found that 43% of respondents she surveyed felt that the curriculum does not represent the contributions of the LGBT community. Dimopoulos and colleagues (2004) referred to the

perception of a hierarchy of oppression, where race and ethnicity are most talked about while other identities are excluded both within and outside of the classroom. In their analysis of student course evaluations in a School of Social Work, Dimopoulos et al. (2004) found that across years and across curricular areas coverage of LGBT content was consistently rated less favorably than coverage of gender and minority issues. In 1991, at the University of Michigan, the only formal education for sexual orientation was a one-and-one-half hour discussion during the summer orientation program. Each incoming student attended a diversity session. Both faculty and students indicated frustration that courses dealing with sexual orientation were not included among the courses that fulfilled the UM College of Literature, Science, and the Arts' (LSA) diversity requirement (University of Michigan Study Committee on the Status of Lesbians and Gay Men, 1991). In most college courses, lesbian, gay, and bisexual "issues are ignored, demeaned, or glossed over" (Renn, 2000, p. 134). Courses addressing homosexuality are increasingly coming under legislative and public scrutiny (Charlton, 2003). In spite of the relative quiet on college campuses surrounding homosexuality, researchers continued to identify the influence of curricular attention to sexual orientation (e.g., D'Augelli, 1992; Noack, 2004; Renn, 2000; Tierney, 1992). Rankin (2010) found that LGBQ students (46%) are more likely than the heterosexual students surveyed (27%) to disagree that general education requirements include the contributions of the LGB community. Similar findings were true of departmental curricular requirements (40% of LGTQ respondents compared to 24% for heterosexual respondents).

Measuring the Impact of Diversity Courses

In 1993, Astin had argued that there was little hard evidence to support any claims about the benefits of diversity. Rather, the evidence tended to be anecdotal in nature. In subsequent years, researchers began to address this gap. The large-scale, national, longitudinal study of undergraduates attending 217 four-year campuses examined how undergraduate students attending four-year colleges and universities are affected by diversity on their campuses (Astin, 1993b). The study involved 82 outcome measures on nearly 25,000 students who had entered college as freshmen in the fall of 1985 and were followed up in the fall of 1989 and the winter of 1990. Astin's findings support the position that curricular and extracurricular opportunities are associated with beneficial effects on a students' cognitive and affective development. Controlling for precollege characteristics and other potential confounding influences, he found that three different measures of diversity (institutional diversity, faculty diversity, direct student experience with diversity) had significant positive impacts on a number of salient college outcomes.

Astin's research revealed noteworthy developmental benefits that accrue to students when institutions encourage and support an emphasis on diversity. He found that greater student involvement in institutional and individual experiences were associated with greater self-reported gains in their cognitive and affective development, and with increasing their satisfaction in most areas of their college experience. These findings emphasized the positive developmental effect of participation in multicultural and diversity activities. In fact, Astin found that diversity activities were positively related to almost every self-reported growth outcome and to most satisfaction outcomes.

Hurtado (2003b) found that students who experienced a diversified curriculum by the end of the second year of college tend to score higher on 19 of 25 outcomes in the study. She found

that the strongest effects of diversity course were evident on complex thinking skills, 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 inequality is okay in society. These students express more interest in poverty, concern for the public good, belief in the importance of 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 a 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 (Hurtado, 2003b).

Higher education has witnessed considerable progress from the early, largely anecdotal and often inconsistent evaluations of campus diversity interventions (Astin 1993a; Denson, 2009; Engberg, 2004) to the rich body of studies examining the relationship between campus diversity efforts, including coursework, and student outcomes (Denson, 2009; Hurtado, Alvarez, Guillermo-Wann, Cuellar, & Arellano, 2012). The literature has tended to show two kinds of research on diversity outcomes. Most studies investigate student outcomes and changes in student attitudes and beliefs. One pattern utilizes large scale data sets in examining the relationship between taking a diversity course and a myriad of student outcomes (e.g., Astin, 1993b; Gurin, Peng, Lopez, & Nagda, 1999). A second pattern examines the relationship between enrolling in a specific diversity course and a smaller set of outcomes (Adams & Zhou-McGovern, 1994). Although the body of research stands in strong recognition of the benefits of formal and informal campus diversity interventions, some early studies showed nonsignificant

effects of diversity interventions on racial bias (Brehm, 1998; Henderson-King & Kaleta, 2000; Hyun, 1994; Neville & Furlong, 1994; Taylor, 1994). While much of the literature includes positive findings of the impact of diversity courses, some studies have shown negative or marginal effect. Mandated curriculum content areas are not always equally supported by the faculty who are teaching them (Gutierrez, Fredricksen, & Soifer, 1999). Using path analysis to examine the impact of diversity interventions on students at the University of Michigan, Taylor found that diversity related coursework did not emerge as a significant contributor to tolerance (Taylor, 1994). In their examination of one semester of a required Race and Ethnicity course at the University of Michigan, Henderson-King and Kaleta (2000) found that although the course did not produce gains in tolerance, it "buffered" declines in tolerance. Students in the diversity course demonstrated no change in their feelings and showed a marginally significant increase in their beliefs about racism. In the absence of such courses, White students become less tolerant over the course of a semester. Brehm (1998) found no difference in pre-post stereotyping behavior both within and between experimental and control groups, although within-group analysis of the experimental groups showed that both women's studies and ethnic studies courses, as opposed to other variants of diversity course requirements, were most effective in addressing negative stereotypes (Brehm, 1998).

According to Milem and colleagues (2005), when diversity is engaged intentionally and with the entire campus community, educational benefits accrue for both students and the higher education institution itself. Research indicates that emphasizing diversity on college campuses tends to have consistently positive effects on student experiences and on educational outcomes (Appel, Cartwright, Smith, & Wolf, 1995). Researchers have also examined the possible long-term effects of the positive gains from enrolling in diversity courses. Previous enrollment in

diversity courses led to more positive attitudes at the end of the semester, suggesting that multiple courses have a cumulative effect on students' levels of tolerance (Palmer, 2000). Gurin (1999) found a positive relationship between taking an ethnic studies course and outcomes such as having diverse friends and neighbors nine years after starting college.

Positive effects of diversity coursework have included gains in critical thinking (Gurin, 1999a; Hurtado, 2001; Milem, 1992; Musil, 1992; Smith, 2009); foreign language skills (Astin, 1993b; Hurtado et al., 2001); epistemological and moral development (Adams & Zhou-McGovern, 1993); writing ability (Hurtado et al., 2001); complex thinking abilities (Gurin, 1999); and cognitive development (Guthrie, 1996). Studies have also linked diversity coursework with positive gains in interpersonal skills (Hurtado, 2001) and a broad range of democratic and civic outcomes (Astin, 1993b; Gurin, 1999a; Hurtado, 2003a; Hurtado, Dey, et al., 2003; Milem, 1994; Zúñiga, Williams, & Berger, 2002). Studies have revealed positive effects on sociopolitical views (Musil, 1992) and participating in a community action program (Gurin, 1999). Studies have also linked diversity courses with positive effects on reducing prejudice (Chang, 1999a, 1999b, 2000a, 2000b); awareness of inequality (Lopez, 1993); awareness of diversity issues (Hussey, Fleck, & Warner, 2010; Peterson, Cross, Johnson, & Howell, 2000); understanding of multiculturalism (McCain-Reid, 1994); support for educational equity (Lopez, 2004); understanding of racial bias (Bakari, 2000); comfort dealing with diversity (Barry, 1996); cultural awareness and appreciation of multiple cultures (Astin, 1993b; Chang, 2002; Gurin, 1999a; Hurtado, 1996, 2001; Palmer, 2000); quality of student interactions with diverse peers (Nelson Laird, Engberg, & Hurtado, 2005), and acceptance of the just world ideology (Van Soest, 1996).

Students have been shown to become more tolerant of difference after enrolling in diversity courses (Chang, 2002; Engberg et al., 2004; Hurtado et al., 2001; Palmer, 2000; Peterson et al., 2000). Guthrie explored the degree to which higher levels of reflective thinking were associated with higher levels of tolerance, which she defined as low levels of prejudice toward African Americans and homosexuals. Her results indicated that when controlling for gender, age, and education level, 28% of the variance in tolerance could be accounted for. Guthrie's research suggests a relationship between intellectual development and levels of tolerance and that a critical level of reflective thinking ability is needed for truly tolerant responses (Guthrie, King, & Palmer, 2000).

As part of the Ford Foundation's Campus Diversity Initiative, Humphreys found that students who learn about and study issues such as racial prejudice within a classroom report that it is easier for them to discuss these kinds of issues outside of the classroom (Humphreys, 1998). In this way, diversity courses are increasing dialogue and intercultural contact. This logic does flow from the kind argument posited by Adams and Marchesani (Adams, 1992). As we develop a personal awareness of the internal interconnection among multiple social identities, we are better able to understand the complexity. This was further supported by Chang (2002), who found that students who had completed most of a required diversity course were significantly more likely to express positive attitudes about African Americans than students who had just started the course. Importantly for the current study, this findings held up even when the class did not specifically focus on African American issues. Curricular exposure to diversity can contribute to opening students to broader experiences which extend beyond the focus of the specific coursework (Ouellette, Campbell, Ouellette, & Campbell, 2014).

Researchers have also measured how diversity interventions can have differing effects based on race or sex. In the majority of studies, college diversity experiences have been found to have a more pronounced effect on White students than on students of color (Gurin et al., 2002; G. E. Lopez, Gurin, & Nagda, 1998). In an examination of students enrolled in a diversity course, Palmer found that students of color experienced greater gains in tolerance than did White students and women more than men (Palmer, 2000).

A growing body of literature addresses the effect of enrolling in diversity courses and attitudes about sexual orientation (e.g., Engberg, Hurtado, & Smith, 2007; Engberg et al., 2004). Kardia (1996) found no effect of diversity curricular or co-curricular programming on LGBT attitude development. However, Chang (2002) found changes in students' levels of modern racism resulting from coursework across multiple domains, including gender, race, and sexual orientation. Curricular and co-curricular exposure were associated with a positive effect on increasing tolerance of sexual diversity (Stephenson, 1988). Shaw (1990) found that students who had attended courses or workshops which discussed sexual orientation were found to be less homophobic than those who had not attended these courses.

Minimal research has been done to date on the degree to which these diversity courses are limited by their subject matter. Some researchers have posited that learning about one significant difference in U.S. society can transfer well to thinking about other differences and subsequently reduce multiple types of prejudice. Schmitz (1992) has argued:

A course on Chinese philosophy has educational purposes that are quite different from a course on Native American women, and both differ fundamentally from a course on racism, sexism, anti-Semitism, homophobia, and other forms of prejudice and

discrimination. Any or all of these courses may provide valuable learning experiences for students on a particular campus, but they attend to very different learning goals (p. 10). In contrast, Palmer found that nearly 60% of the students surveyed suggested that their experience in a diversity course motivated them to look at multiple perspectives in other courses and to rethink history from the perspectives of a targeted diversity group (Palmer, 2000). Of particular interest to the current study, Engberg and colleagues found that exposure to diversity in general had a positive influence on the development of more tolerant attitudes toward LGBT peers (Engberg et al., 2007; Engberg et al., 2004).

Pedagogical Considerations in the Teaching of Diversity Courses

Researchers have examined the effectiveness of methods for teaching about diversity and the theories and scholarship used to inform instructional processes (Banks & Banks, 1995; Cress, 1998; Gutierrez et al., 1999). Faculty continue to respond to the need to develop a repertoire of instructional methods and pedagogical style to integrate diversity in the curriculum and engage it in the classroom and pedagogical style to integrate diversity in the curriculum and engage it in the classroom (Anderson & Adams, 1992; Buchen, 1992; Hurtado, 1996; Marchesani & Adams, 1992) (Musil et al., 1999; Musil, Garcia, Moses, & Smith, 1995; Smith, 2009; Smith, Parker, Clayton-Pedersen, Moreno, & Teraguchi, 2006). Classrooms can be productive places to develop intergroup dialogue and relationships, but faculty need to be comfortable with tensions, manage heated discussions, and accept controversy as a part of the process (Chesler, 2005; Humphreys, 2002; Smith, 2009).

Particular pedagogical techniques have been shown to promote important and effective student interaction (Hurtado, 2001; Hurtado, Dey, et al., 2003). Courses that utilize a discussion-

based pedagogy have been found to be more effective than lecture courses at affecting students' attitudes on racial policies (Palmer, 2000). Dialogue groups (Hurtado, Milem, et al., 1998; Zúñiga & Nagda, 1992) have also been found to be effective instructional methods. When faculty help to create opportunities and supportive environments for classroom interaction, students are better able to learn from diverse peers. Van Soest refers to the "power of classroom interactions to facilitate or hinder learning" stressing the need for faculty to create classroom environments characterized by respect and empathy (Van Soest, 1994, p. 26). Hurtado, Engberg, and Ponjuan (2003) found that a more formal context for diversity, which included courses with diversity readings or an intergroup dialogue component, was a positive determinant of students' perspective-taking (Hurtado, Engberg, & Ponjuan, 2003).

Co-curricular Programming

Campuses are investing in multiple forms of interventions outside of the college curriculum to address diversity (Chesler, 2005; Neville & Furlong, 1994). This form of intervention tends to be more interactive, involve a more short-term time commitment, and integrate participant experience (McCauley, Wright, & Harris, 2000)A survey of 281 higher education institutions showed that 73% offer diversity workshops (McCauley et al., 2000). Participating in these workshops was positively associated with commitment to promote racial understanding, participating in campus protests, cultural awareness, social activism, and retention (Astin, 1993a) and a development of openness to racial diversity (Pascarella et al., 1996). Participating in a racial or cultural awareness workshop has been found to promote the development of more favorable attitudes toward diversity and decreasing racial bias (Neville &

Furlong, 1994; Springer et al., 1996; Whitt et al., 2001). Taylor (1994) found co-curricular interventions to be the most powerful predictor for college males.

Social Interactions during College

Schoem and Knox characterize the importance of the informal interactions that happen among first year college students time in this time of transition and developing of one's self:

Students learn from other students. In the unlikely moments of a midnight pizza, the noon rush to class, the casual meeting in the hallway, words and thoughts expressed that inspire bursts of growth and fresh insights...The first year of college produces the kind of anomaly in life that creates the greatest production of new experiences in the lives of students. Rising above the familiar patterns of home and community, the first year of college places the students in a completely new environment fertile with possibilities. The student joins many others similarly seeking a niche, enjoying the benefits of the diversity amid curriculum plans and happenstances of everyday problems (Schoem & Knox, 1988, pp. 1, 97).

According to learning, cognitive and social development theories, students learn and acquire skills through interactions with others (Piaget, 1975; Selman, 1980). Allport's seminal work on prejudice suggested that interaction and contact between members of majority and minority groups could lead to positive relations, but only under circumstances such as equal status between groups and support from authorities for contact (Allport, 1954). A growing body of research indicates that interaction with diverse peers is an important factor in encouraging learning necessary for living in an increasingly diverse society (Astin, 1993b; Hurtado et al., 1999). Interactions with diverse peers have been linked to a broad range of skills and dispositions, including openness to diversity and challenge (Pascarella et al., 1996; Whitt,

Edison, Pascarella, Terenzini, & Nora, 1998); commitment to promoting racial understanding (Astin, 1993b; Chang, Astin, & Kim, 2004; Milem, 1994); intellectual and social self-confidence (Chang, 1996); learning of democratic skills (Hurtado, Dey, et al., 2003). Gurin et al. (2002) found that interaction with diverse peers positively influenced students' compatibility with difference and citizenship engagement across all racial groups. Researchers also found that students who interacted with diverse peers reported more frequent discussion of complex social issues, including such things as the economy, peace, human rights equality, and justice (Springer, 1995). Such studies indicate that students who interacted with diverse peers demonstrated more complex thinking that is linked with both cognitive and social development. Hurtado asserts that, for a curriculum that emphasizes diverse perspectives, the presence of diverse peers may be an important precondition of learning.

Intergroup contact has consistently been found to reduce prejudice (Dovidio, Kawakami, & Gaertner, 2002; Nagda, Gurin, Sorensen, & Zúñiga, 2009; Pettigrew & Tropp, 2006; Pittinsky, 2007; Shelton, 2005; Tropp, Pettigrew, 2005; Zúñiga, Nagda, Chesler, & Cytron-Walker, 2007). Studies have shown that without the inclusion of the experiences of under-represented minorities, intergroup efforts can lead to stress and distrust (Dixon, Durrheim, & Tredoux, 2005; Dovidio, Kawakami, & Gaertner, 2000; Major & O'Brien, 2005; Tropp, 2006; Tropp, Pettigrew, 2005). Gurin and colleagues have shown a positive relationship between participation in classes and extra-curricular activities with diverse peers (Gurin et al., 2003; Gurin et al., 2002). Engaging with people from different backgrounds during college develops capacity to do so after college (Kuh, 2003; Shulman, 2002; Umbach & Kuh, 2006). Hurtado and colleagues found a strong relationship between positive, informal interactions with diverse peers and student measures of complex thinking about people and their behaviors, and about cultural and social

awareness, and perspective-taking (Hurtado, 2007). When these interactions occur in more structured and sustained settings, such as diversity courses or workshops, they have been shown to yield the strongest effects (Bowman, 2013; Denson, 2009; Pettigrew & Tropp, 2006).

Researchers have also examined the impact of interaction with LGBT individuals prior to entering college. In a study of White college freshmen, D'Augelli and Rose (1990) found that less than half of their sample even knew a gay man casually and even fewer students knew lesbians casually. Studies (D'Augelli, 1990; Herek, 1984a, 1988; Kardia, 1996) have linked positive attitudinal changes with direct exposure to LGBT students. Herek (1885) found that people who are homophobic are less likely to have had personal contact with lesbians and gay men, more conservative toward sexuality, more likely to be older and less educated, more likely to attend church regularly, and more likely to be more politically conservative (Herek, 1985). Engberg, Hurtado, and Smith (2004) found that pre-existing LGBT attitudes influenced who enrolled in a diversity course and who has contact with LGBT peers. Both of these experiences influenced the individual's thoughts about their own identity in college. They found that contact and interaction with LGBT peers during college helped to reduce anxiety and discomfort around LGBT people. This ultimately resulted in more tolerant student attitudes.

Some researchers apply a contact hypothesis that begins from the perspective that knowing out-group members has the capacity to diminish prejudice. This perspective builds upon the hypothesized causal link that LGBT individuals coming out would lead to increased social and political acceptance of sexual orientation. For example, Lewis found that people who know LGBs are significantly more likely than comparable others to favor non-discrimination in principle and in law, to support LGBs teaching school, openly serving in military, oppose

sodomy laws, favor civil unions and same-sex marriage, support adoption and inheritance rights for same-sex couples (Lewis, 2008).

Reductions in prejudice extend beyond immediate contact situations. Individuals can generalize beyond the immediate person they are in contact with and exhibit positive attitudes to that person's whole group after contact (Pettigrew & Tropp, 2006). Personal interactions contribute to diminishing "intergroup anxiety" and "feelings of threat and uncertainty that people experience in intergroup contexts" (Pettigrew & Tropp, 2006, p. 767). In their meta-analysis, Pettigrew and Tropp (2006) found that contact with lesbians and gay men typically has stronger effects than contact with racial, ethnic, or other minorities (Pettigrew & Tropp, 2006). Some studies have indicated that individuals who have personal contact with homosexuals are less likely to have negative attitudes toward them (D'Augelli, 1990; Herek, 1988). In her examination of the aspects of the college experience which contribute to students' acceptance of sexual diversity, Kardia (1996) used the Michigan Study data from entrance (1990) and end of the fourth year (1994). She found a significant negative association for men who enter college with an ambivalent or positive attitude toward sexual diversity and who participate in a fraternity (Kardia, 1996). The study did show that contact with lesbian, gay, and bisexual individuals is a primary mechanism through which student attitudes change. Cotton-Huston and Waite (2000) found that students who know a gay person expressed fewer negative attitudes than students who do not have such acquaintances. In their study of students at a research university in the Northeast, Malaney et al. (1997) found that students with gay, lesbian, and bisexual acquaintances were more likely to support gay rights and were more likely to intervene if they witnessed harassment (Malaney, Williams, & Geller, 1997).

Friends and family have been found to be more likely than acquaintances to have the kinds of conversations that produce attitude change (Herek, Capitanio, J., 1995; Pettigrew, 1998; Smith et al., 2009). Knowing LGB couples may have more impact on support for recognizing same-sex couples than knowing LGB individuals (Barth et al., 2007). The age of the person needs to be taken into consideration. Knowing someone gay has been shown to have significantly more impact for those born in the 1980s than for those born earlier. Those who know someone gay are substantially more gay-supportive than otherwise similar individuals born in 1970s (Lewis, 2008). Recent research suggests that positive relationships between identities can lead to intergroup tolerance & openness (Ramarajan, 2009).

Researchers have also found that friendships with LGBT individuals can minimize the negative effect of religious fundamentalism on sexual prejudice, and that these friendships can cause people to re-evaluate their attitudes (Cunningham & Melton, 2012).

Lewis found that women are more likely than men to know individuals who identify as gay. Across 27 combined surveys, 47% of women and 40% of men knew LGB individuals (Lewis, 2008). Additionally, Lewis (2008) found that female, younger, more educated, less religious, and more liberal people have more gay-positive attitudes (Lewis, 2008).

Diverse friendships among college students are formed early, generally during the first year in college, typically as residents in dormitories. According to results from National Benchmarks of Effective Educational Practice, 84% of all students surveyed indicated that they had at least occasional serious conversations with students of a different race or ethnicity. 46% indicated that had such conversations often or very often (Bernstein, 2001). Hurtado and colleagues (2001) found that student interactions with different racial and ethnic groups were a significant predictor of students' ability to see multiple perspectives, belief that conflict enhances

democracy, and agreement in the importance of social action engagement (Hurtado et al., 2001). Chang (1996) found that socializing across race had a positive effect on retention, overall satisfaction with college, intellectual self-concept, and social self-concept.

Providing opportunities for students to engage across difference has a real potential for increased awareness that can potentially lead to increased acceptance (Gelman, 2009). When students have opportunities to engage with diverse peers, positive learning and democratic skills develop (Hurtado & Ponjuan, 2005). Gurin and colleagues argue that some of the most powerful positive interactions across racial/ethnic lines occur outside the classroom in informal interactional diversity (Gurin et al., 2002). Social psychological theory posits that a student's membership in and desire to be part of a peer group is one of the strongest determinants of social interaction during the college years (Hurtado et al., 1994). Formation of a peer group can be based on precollege acquaintances, common interests and values, and nearness in place and time (i.e., housing arrangements, orientation programs, college programming). Peer group theory and social identity theory explain that individuals want to join organizations that promote positive social identities, which in turn can lead to intra-group association among minorities who want to improve negative images of their group on campus (Abrams & Hogg, 1990; Hurtado et al., 1994; Tajfel, 1982).

Studies have found students who discussed racial/ethnic issues outside of class were more likely to be liberal in racial attitudes, show higher commitment to racial understanding, and have greater levels of cultural awareness and acceptance (Astin, 1993b; Milem, 1992). Milem found that students who socialized with someone from another racial/ethnic group were more liberal in racial attitudes, higher in commitment to promoting racial understanding and had increased levels of cultural awareness and acceptance (Milem, 1992). Antonio (1999) found that

controlling for gender, socio-economic status, and the racial diversity of pre-college friendship groups, friendship group diversity was positively associated with both interracial interaction outside the friendship group and a stronger commitment to racial understanding (Antonio, 1999).

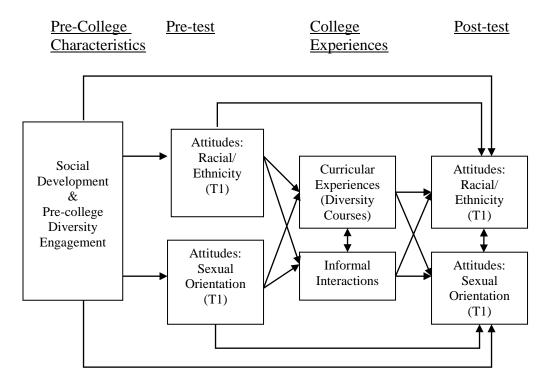
Conceptual Framework

Research in a number of fields has illuminated important background characteristics, precollege experiences with diversity, curricular and co-curricular experiences, and student predisposition to engage with different individuals. The literature supports that the total educational experience plays an important role in effecting change in student experience and attitude development. This study seeks to combine all of these aspects into one comprehensive conceptual framework that will examine changes in student attitudes about race and sexual orientation. The theoretical model undergirding this study is grounded in contemporary research on attitudinal change, psychosocial theories, and college impact. Developmental theories can help explain capacity for change in college students and how particular stages in the life cycle influence knowledge and skills. The current study draws upon these models to better understand how curricular and co-curricular college experiences increase student tolerance for racial and sexual orientation diversity. Based on the theoretical and empirical literature, a number of influences contributing to changes in students' attitudes regarding race and attitudes regarding sexual orientation have been identified: background characteristics, pre-college engagement with diversity; predisposition toward tolerance; formal college curricular experiences; and informal college experiences.

Employing a longitudinal approach allows for a systematic analysis of how students grow and develop by comparing data collected from individuals at one time to data collected at a later time. This allows for an understanding of how different experiences promote growth and development. This study focuses primarily on students' college diversity experiences as the central driving force contributing to changes in attitudes. Other aspects of the college experience, such as other major academic experiences, may also play an important role in students' development of tolerance. The purpose of this study, however, is to test an explanatory, theoretically driven model of how college diversity experiences, specifically curricular experiences, influence changes in student attitudes during the first two years of college.

Figure 3.1 provides a conceptual schematic of student change based on these theories and the links established by prior research. The model examines college experiences with diversity and illustrates a conceptual framework that incorporates these influences on student tolerance by the end of the second year of college. A number of student background variables were included in the current study, including student racial/ethnic background, age, socioeconomic status, religiosity, and student ability. Because of the focus of this study, it was important to separate formal curricular experiences from other informal college experiences. Pretest variables have been shown to be more highly correlated with the posttest outcome measure than any other input or environmental variable and so the model reflects this direct relationship between students' tolerance at the time of college entry and at the end of the second year of college.





In the following chapter, the major research questions that guide the analytic portion of this study are presented. In addition, each of the constructs outlined in the conceptual framework are further defined and described. The research design, sample characteristics, and analytic methods are presented to provide a thorough description of the methodology employed in this study.

Chapter 4 Analytical Methods and Conceptual Framework

This chapter presents the analytical methods and conceptual framework used to understand whether experiences during the first two years of the undergraduate experience, including curricular-based experiences, contribute to the development of student personal attitudes about race/ethnicity and sexual orientation. The first section of this chapter outlines the research questions that are addressed in order to answer the central research question presented in Chapter 1. The next section describes the setting for the study -- the University of Michigan during the relevant time period of this study (1990-2002) -- followed by a description of the datasets from which the constructs for this study were drawn. Next, the data preparation and the variables that are used in the analyses are explained in detail. The analytical methods are outlined, and a discussion of the limitations of the study is provided.

Research Questions

The purpose of this study was to explore the contribution of diversity courses to students' attitudes, specifically focusing on race/ethnicity and sexual orientation. In this study, I addressed the following research questions:

1. Among the University of Michigan entering classes of 1990 and 2000, what were the characteristics of students who enrolled in diversity courses in their first two years of college?

- 2. What pre-college and college experiences predict change in student personal attitudes about race/ethnicity and sexual orientation?
- 3. Does enrolling in a diversity course have a different effect on student development of personal attitudes about race/ethnicity than the effect it has on attitudes about sexual orientation?
- 4. How do student personal attitudes about race/ethnicity and sexual orientation differ for students completing their second year of college in 1992 and in 2002?
- 5. Is the model developed for the 1990-1992 cohort replicable for the 2000-2002 cohort? These questions focus on two cohorts, separated by a decade of attention and investment in diversity interventions, and as such, can contribute to the existing knowledge base of campus diversity efforts.

The University of Michigan Context

The data for this study were collected at the University of Michigan, a residential research university with a diverse population of students, faculty, and administrators. The University is composed of 19 schools and colleges and 1,213 academic programs. The College of Literature, Science, and the Arts (LSA) is the largest of the University's 19 schools and colleges. The College offers 70 majors and 43 minors in 25 academic departments with more than 2,000 courses each semester. LSA has a faculty of more than 1,000. The College aims to prepare students to "live successfully in a rapidly changing world and to give it necessary leadership and vision" (University of Michigan, 2004).

Members of the LSA faculty in the early 1990s generally agreed that because racial and ethnic intolerance had fundamentally affected the development of contemporary American society and because the effects of this intolerance would continue to be felt into the future, all

students should be required to take at least one course dealing with topics such as the historical development of racism, and the social, political, and economic effects of racism and other types of discrimination. Since 1991, undergraduates in the College of Literature, Science, and the Arts have been required to enroll in and complete at least one approved Race and Ethnicity (R&E) course. At the time this requirement was instituted, fewer than ten peer institutions were considering adopting comparable requirements (University of Michigan College of Literature, 1990).

All Race and Ethnicity (R&E) courses satisfying the requirement needed to provide discussion, consistent with disciplinary approaches, of 1) the meaning of race, ethnicity, and racism; 2) racial and ethnic intolerance and resulting inequality as it occurs in the United States or elsewhere; and 3) comparisons of discrimination based on race, ethnicity, religion, social class, or gender. Students selected courses from a list approved by the College of LSA Curriculum Committee. All approved courses exposed students to questions focusing on the meaning of race and racism, historical development of racism, social, political, and economic effects of racism, racial and ethnic intolerance and resulting inequality, and comparisons with other types of discrimination. Every course satisfying the requirement needed to devote substantial, but not necessarily exclusive, attention to the required content. Courses were approved for five-year terms with an option for renewal. The variation from year to year of courses that met this requirement was minor. In rare instances, a course was developed and only offered for a few terms⁵.

⁵ The College of LSA has been the only school or college at the University of Michigan to require diversity coursework for graduation. In addition to LSA students, other students can and do enroll in R&E courses. The University does not currently track these enrollment patterns (Personal communication with Evans Young, University of Michigan College of Literature, Science, and the Arts, Assistant Dean for Undergraduate Education).

During the same period of the 1990s, Ronni Sanlo (Director of the U-M Office of Lesbian, Gay, Bisexual, and Transgender Affairs from 1994-1997) stressed the invisibility of LGBT students, faculty, and staff from critical campus discussions, taskforces, and commissions. These concerns agreed with the earlier findings in the University's 1991 report entitled *From Invisibility to Inclusion*. More than one decade later, the University offered a graduate certificate in LGBT studies. The University has been recognized as one of the 20 best campuses for LGBT students and was included in the Advocate College Guide for LGBT Students, the first comprehensive campus guide for LGBT students. The university's environment, programs, and services, and student coalitions were cited, describing a welcoming, respectful, civic-minded campus climate for LGBT students (Windmeyer, 2006).

The University of Michigan has experienced important changes in policy and campus climate around issues of race/ethnicity and sexual orientation. In light of these differing and changing dynamics surrounding race/ethnicity and sexual orientation for students, faculty, and staff, student opinion on campus has also likely changed over time. For this reason, this study includes an examination of cohort effect.

Data Sources

In undertaking this study, I used data collected as part of two major research efforts: The Undergraduate Experience at Michigan (also known as the Michigan Student Study or MSS) begun in 1990 and the University of Michigan subset from the Preparing College Students for a Diverse Democracy Project (also known as the Diverse Democracy Project) begun in 2000. The data for this study are drawn from surveys conducted in the first and second years of respondents' undergraduate education, an influential period in student development (McLachlan & Krishnan, 1997 as cited in Chickering, 1981; Taylor, 1994).

Survey Design

Begun in August of 1990, a longitudinal study of student attitudes and experiences called The Undergraduate Experience at Michigan was conducted to investigate student attitudes, expectations, and experiences with institutional commitments to diversity, multiculturalism, gender and sexual diversity. The survey sought to identify the general undergraduate experience for students at the University of Michigan, the racial climate on campus, and the degree to which the University's diversity efforts (led in large part by the Michigan Mandate) contributed to an improved educational experience for undergraduates (Kardia, 1996; Taylor, 1994). This initial survey focused on the cohort of first year students expected to graduate in 1994. The first-year survey focused primarily on students' pre-college socialization experiences, and the follow-up survey specifically addressed the impact of the college experience.

A decade after the 1990 Michigan Study was conducted, a national, longitudinal study, entitled Preparing College Students for a Diverse Democracy, was launched. While the Michigan Study was designed largely to study the impact of the Michigan Mandate, the Diverse Democracy Project was an inter-institutional study designed to understand the impact of diversity experiences on student learning and democratic outcomes. Ten public universities participated in a longitudinal survey of the entering Class of 2000 in order to assess college diversity experiences and change in student educational outcomes from the time of college entry through the second year of college. 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. This survey focused on the cohort of first-year students expected to graduate in 2004. The first-year survey focused primarily on students'

pre-college socialization experiences, and the follow-up survey specifically addressed the impact of the college experience.

The Diverse Democracy Project was designed to explore how universities create diverse learning communities, build bridges across social divisions, and demonstrate growth in their students' cognitive and social skills, and in their democratic awareness (Engberg, 2004; Meader, 2004). The study was intended to inform the controversies surrounding diversity in higher education by addressing how campuses are creating diverse learning environments to prepare students to become full participants in a diverse democracy. The ten participating institutions were selected based upon the following criteria: 1) a strong commitment to diversity initiatives as exemplified through curricular and co-curricular programming; 2) recent success in diversifying their student enrollment; and 3) a commitment to public service and the development of significant partnerships with the local community. The University of Michigan was one of the participating institutions; the analyses in this study draw exclusively upon the University of Michigan subset of data.

Missing Data and Non-response Weighting

In the Michigan Student Study, the response rate for the entrance survey was 57%, and the response rate for the second year survey was 52%. The MSS researchers conducted bias analyses using information provided by the Office of the Registrar and identified few differences between survey respondents and non-respondents to these two surveys. Hence, non-response weights were not created for these data (Kardia, 1996; Taylor, 1994).

As detailed by Engberg (2004), Preparing College Students for a Diverse Democracy's missing data analysis revealed a small range of missing data (1% to 11%). The Diverse Democracy Project researchers decided to use a multistage weighting procedure to approximate

as closely as possible the results that would have been obtained if all students had responded to the survey. 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 (McLachlan & Krishnan, 1997 as cited in Allison, 2001; Engberg, 2004).

Engberg (2004) provides a helpful description of weighting decisions for the Preparing College Students for a Diverse Democracy. In order to correct for the low response rates and generalize results to the original sample population, statistical weighting techniques were used to account for the probability of students responding to both the first- and second-year surveys. 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).

For the purposes of the current study the two datasets were merged. In related decisions about how to handle the merged dataset, all efforts were made to stay true to the original survey data preparations. The weight variable was retained for all data analyses of the Preparing College

Students for a Diverse Democracy, and the Michigan Student Study analyses were conducted on unweighted data by assigning a weight of one (Heeringa, West, & Berglund, 2010).

Population and Sample

This study focuses upon the first and second year samples of both The Undergraduate Experience at Michigan and Preparing College Students for a Diverse Democracy. Information about the samples is presented in Tables 4.1 and 4.2. Surveys were distributed to a sample of students at the beginning of the Fall term of 1990, Winter term of 1991 (first academic year), Winter term of 1992 (second academic year), and Winter term of 1994 (forth academic year). In the Fall term of 1990, the Michigan Study Entrance Survey was delivered to incoming first year students who were registered for enrollment in August 1990 (n=4,591). Surveys were delivered during the first week at the university through students' residence halls. With the cooperation of residence hall staff, 2,600 surveys were collected for a response rate of 56.6%. The follow-up surveys were mailed to students using addresses provided by the Office of the Registrar. The sample included all students of color who were U.S. citizens and a random sample of approximately 30% of the White student citizens. The follow-up surveys were administered to all students of color and a large representative sample of White/Caucasian students from the entire population (n=4,591), and not only those White students who responded to the Entrance survey. The follow-up surveys were returned by mail. Only students who were enrolled at the time of data collection were included in the sample.

In the Fall term of 2000, University of Michigan students were administered the first-year Preparing College Students for a Diverse Democracy survey during orientation sessions.

Additional waves were distributed in courses that attracted a large number of first-year students.

The second year survey was administered at the end of students' second year of college (Winter term of 2002) using multiple waves of both paper and web-based surveys.

Table 4.1 presents the sample of MSS respondents used in this study, by race and gender.

Table 4.1: Percent Distribution for Race and Gender Across the 1990-1992 Sample

	Total	Male	Female
	(n=905)	(n=442)	(n=463)
African American	9.6	4.1	5.5
Asian American/Asian	16.0	8.4	7.6
Hispanic	5.3	2.9	2.4
White	69.1	33.5	35.6

Note: Sample reflects respondents to Entrance and Second Year Surveys

Slightly more than half of the respondents were female (51.2%). Nearly 70% of the sample respondents are White (69.1%). Asian American/Asians represent 16.0% of the sample, African Americans represent 9.6%, and Hispanics represent 5.3%. Because of the low representation of Native Americans in the data, they were not included in the analyses.

Table 4.2 presents the sample of Diverse Democracy respondents used in this study, by race and gender.

Table 4.2: Percent Distribution for Race and Gender Across the 2000-2002 Sample

	Total	Male	Female
	(n=757)	(n=407)	(n=350)
African American	7.8	3.6	4.2
Asian American/Asian	14.8	7.7	7.1
Hispanic	5.0	3.0	2.0
White	72.5	39.7	32.8

Note: Sample reflects respondents to Entrance and Second Year Surveys

Slightly more than half of the sample respondents were male (53.8%). Nearly three-fourths of the sample respondents were White (72.5%). Asian American/Asians represented 14.8% of the sample, African Americans represented nearly 8.0%, and Hispanics represent 5%. Because of the low representation of Native Americans in the data, they were not included in the analyses.

Instrumentation

The full text of the Entrance and Second year survey instruments are presented in Appendix A. The Undergraduate Experience at Michigan Entrance survey contained forty-four item sets in the first year and thirty-six in the second year, many of which consisted of multiple parts. The survey instruments were organized into the following sections: 1) student background information; 2) general experiences at Michigan, 3) racial/ethnic environment and relationships; 4) student experiences with diversity; 5) academic experiences at Michigan; and 6) personal and political attitudes. The majority of items were measured on Likert scales.

Preparing College Students for a Diverse Democracy survey contained thirty-five item sets in the first year and thirty-one in the second year. The survey instruments were organized into the following sections: 1) experiences/backgrounds; 2) classroom experiences; 3) thinking and interacting; 4) attitudes and beliefs; and 5) demographic information. The majority of items were measured on Likert and Likert-type scales.

The conceptual model (see Figure 3.1) reflects a combination of the constructs that were found to be statistically significant in the discrete analyses, as well as those which are theoretically supported by existing literature. Identification of variables followed rigorous attempts to identify comparable items in the Michigan Student Survey (MSS) and Diverse Democracy datasets, both in terms of item phrasing and response options. The Diverse

Democracy surveys provided additional survey items not asked in the MSS surveys. Strategic decisions were made about including such variables if they would augment the examination of the college experience. The text provided in this study carefully identifies the instances where these supplemental survey items have been taken into consideration. For the purposes of this study, the two datasets were merged to enable analyses across both samples. To be retained in the merged dataset, respondents with Year 1 and Year 2 survey data were retained. Although this decision reduced the overall number of retained cases, it did address concerns about missing data. Throughout all data preparation, variables were re-coded as needed to adjust the general direction of the responses.

Variables in the Study

In the following section, detailed information is provided on the dependent and independent variables used in the study. Because this research design is based on secondary data analyses, focus was placed on those constructs that were well represented by survey items. In order to allow for cross-time analyses, a strict level of item comparability was employed. Item wording which was common to both MSS (1990 and 1992) and Diverse Democracy (2000 and 2002) surveys was carefully considered. Special note is made below for the few instances where wording differed. Several measures were reverse-coded so that students' responses would semantically match the other measures. Additionally, several measures were also recoded to allow the direction of the variables to remain consistent across both datasets. Table 4.3 lists the variable descriptions, data source, and coding for each of the dependent and independent variables in the analyses. Inclusion of variables unique to the Diverse Democracy project surveys which could help to provide further explanation to the model are also indicated in Table 4.3.

Appendix B provides a detailed variable comparison for both datasets, including item wording.

Appendix C presents the factor loadings and reliabilities for scaled variables.

Table 4.3: Description of Variables, 1990-1992 and 2000-2002

Variable Description	Data Source (MSS and DivDemo) Single source is noted below.	Coding	
Personal & Political Attitudes			
Attitudes: Sexual Orientation	1st and 2nd year survey	Scaled index, three items: 1=Strongly agree to 4=Strongly disagree	
Attitudes: Race/Ethnicity	1st and 2nd year survey	Scaled index, three items: 1=Strongly agree to 4=Strongly disagree	
Pre-college Characteristics—Social Development			
Gender	1st year survey	Dichotomous: 1=Male, 2=Female	
Race/Ethnicity	1 st year survey	Dummy-coded: African American/Black, Asian American/Asian, Hispanic/Latino, White/Caucasian (non-Hispanic)	
Family Socioeconomic Status (SES)	1st year survey	Single item: Mother's Education (1=1-8 years high school to 6=Doctorate or professional degree)	
Student Ability (SAT)	Institutional records	Single-item, continuous: Composite SAT score or converted ACT score (400-1600 scale)	
Religiosity (RELIG)	1st year survey	Single-item, continuous: 1=Very religious to 4=Not at all religious	
Pre-College Characteristics— Diversity Engagement			
Racial composition of HS and neighborhood	1st year survey	Scaled index, two items: 1=All or nearly all White to 5= All or nearly all people of color	
Predisposition for diversity experience (WANTDIV)	1st year survey	Reverse-coded, single item: 1= Very unlikely to 4=Very likely	

Frequency of interactions	1 st year survey	Single-item, continuous: 1=No interaction to
with LGBT peers (pre-	(Div Demo only)	4=Substantial interaction
college) ¹		
<i>3</i> ,		
Callaga Ermanianasa		
College Experiences— Curricular		
Curricular		
Course readings, lectures, and	2nd year survey	Single-item, continuous: 1=Not at all to 5=A
discussions	2 year survey	great deal
discussions		grout dour
College Experiences—		
Informal Interactions		
Mission to support diversity	2 nd year survey	Reverse-coded, single item: 1=Strongly disagree
education	•	to 4=Strongly agree
Attended diversity	2 nd year survey	Reverse-coded, single-item, continuous: 1= No,
program/workshop		have not participated to 2= Yes, have
		participated
Campus diversity experiences	2 nd year survey	Scaled index, seven-items: 1=Never to 5=Very
(co-curricular) ¹	(Div Demo only)	often
Frequency of interactions	2 nd year survey	Single-item, continuous: 1=No interaction to
with LGBT peers ¹	(Div Demo only)	4=Substantial interaction
	(= : : = ::::: omy)	

¹Variable is unique to 2000-2002 respondents, Diverse Democracy survey.

Dependent Variables: Personal and Political Attitudes

This section describes the construction of the dependent variables used in the study. Two scaled indices of multiple items that appeared in both the first- and second-year surveys are used to measure personal attitudes about sexual orientation and race. The pre-test measures (responses at T1) and the end of second year measures (responses at T2) have been similarly constructed. Caution was used to limit these scales to equally worded items from both the MSS and Diverse Democracy surveys. Responses for the 1990-1992 MSS cohort were measured on a four-point Likert scale (1=strongly agree to 4=strongly disagree) as were responses for the 2000-2002 Diverse Democracy study cohort. Several measures were reverse-coded so that students' responses would semantically match the other measures in the cluster. The variables that

compose the scale, Attitudes about Sexual Orientation, represent students' agreement or disagreement with the following statements:

- If I found out someone I knew was gay, lesbian, or bisexual, I'd be accepting and supportive.
- Romantic relationships between people of the same gender are as acceptable as they are for heterosexual couples.
- I would probably not be able to continue my friendship with a friend who I discovered was homosexual.

The variables that compose the scale, Attitudes about Race/Ethnicity, represent students' agreement or disagreement with the following statements:

- Our society has done enough to promote the welfare of different racial/ethnic groups.
- A person's racial background in this society does not interfere with achieving everything he or she wants to achieve.
- The system prevents people of color from getting their fair share of good jobs and better pay.

Appendix C presents the factor loadings and reliabilities for these scales. The Attitudes about Sexual Orientation subscale consisted of three items at Time 1 (α = .82) and those same three items at Time 2 (α = .83). The Attitudes about Race/Ethnicity subscale consisted of three items at Time 1 (α = .64) and those same three items at Time 2 (α = .73).

Independent Variables

The independent variables for this study were selected based on the conceptual framework developed and presented in the previous chapter. The literature reviewed in Chapter 3

informed and guided the process of selecting the independent variables for analysis. The current study is centrally focused on changes to student personal attitudes about sexual orientation and race/ethnicity.

Pre-college characteristics: Student background and diversity engagement

For both the 1990-1992 and 2000-2002 samples, five student background variables were included in the model, including gender, race/ethnicity, racial composition of high school and neighborhood, family socioeconomic status, and student ability (as measured by SAT score).

Two additional variables are included to measure pre-college characteristics, including a measure of student religiosity and a measure of student desire to interact with people from different backgrounds during college.

Racial/ethnic background consists of dummy variables that together reflect the predominate racial/ethnic groups on the University of Michigan campus: White/European American, African American, Latino/a, Asian American/Asian. The 1990-1992 sample consisted of 69.1% White students, and the 2000-2002 sample consisted of 72.5% White students.

Students' socioeconomic status is generally considered to be a combination of a number of factors, including parental income, parental educational attainment, wealth of the home community, and standard of living (Inkelas, 2000). For the current study, socio-economic status (SES) is operationalized through a single item -- mother's education. This decision was driven by the reliance on mother's education in the Michigan Study. While the MSS survey instrument inquired into both mother's and father's education, respondents replied to mother's education more frequently. Previous studies which have used the Michigan Student Survey (MSS) data have found mother's education to be predictive of students' racial attitudes (Smith, 1992), general tolerance levels (Taylor, 1994), awareness of racial or ethnic inequality (Lopez, 2004),

and tolerance for sexual diversity (Kardia, 1996). Mother's education is measured on a six-point Likert scale (1=some high school to 6= doctorate or professional degree). Responses of "Not applicable" and "Not sure" were recoded as missing data.

Student ability is represented by combined math and verbal scores on the Scholastic Aptitude Test (SAT). Where necessary, ACT scores were converted to their equivalent SAT measure. The original study authors directly obtained information regarding students' SAT and ACT scores from the institution, which provides a more accurate and reliable assessment of student's academic ability. Several studies have shown the relevance of academic ability for student outcomes. SAT scores have been associated with an indirect effect on racial attitudes and general levels of tolerance (Smith, 1993; Taylor, 1994) and more positive attitudes about LGB individuals (Engberg, 2004).

Based on existing literature concerning personal attitudes regarding sexual orientation, religiosity was included as a background variable (measured at college entrance). Research has shown that people with negative attitudes toward LGBT individuals are more likely to be religious, to attend church regularly, and to follow a conservative religious ideology (Bannister, 2000; Engberg et al., 2004; Henley & Pincus, 1978; Herek, 1984a, 1984b, 1987; Kardia, 1996; McFarland, 1989; Obear, 1991; Taylor, 1994; Wolfe, 1998). For the current study, the MSS and Diverse Democracy religiosity measures were each recoded and combined into one single, continuous item. The MSS entering survey included an item asking students to rate how religious they are (1=Very religious to 4=Not at all religious). The Diverse Democracy Project entering survey included an item asking students to indicate how frequently they had participated in religious activities or spiritual ceremonies during high school (1=Never to 5=Daily). As previously noted, care was exercised in cases where comparably worded variables were not

available. Because of the relationship between religiosity and negative attitudes about homosexuality found in the literature, I considered religiosity at college entrance to be an important measure to include in the study, and for that reason accepted these as the closest available measures across the two studies.

The model also includes measures of segregation prior to college. Although not a measure of actual engagement with diverse individuals, the segregation measures may provide some understanding of the likelihood of future engagement with diverse peers. Students in both the 1990-1992 and 2000-2002 samples were asked to indicate the racial/ethnic composition of two aspects of their pre-college environment: the neighborhood where they grew up and the high school from which they graduated. Student responses were scored on a five-point scale (1= all or nearly all White all to 5=or nearly all people of color). A scaled variable was developed, and lower scores on this scale reflect a racial composition comprised of mainly White individuals while the high on the scale indicates precollege environments that were largely underrepresented minority.

Researchers have shown that for White subjects, the personality trait of "openness to experience" is positively associated with attitudes of racial tolerance (Flynn, 2005). The literature also supports a critical relationship between the organizational culture and campus diversity interventions and efforts developed by a campus (Aleman, 2003; Ibarra, 2000; Kezar & Eckels, 2002; Smith, 2009). Students in both the 1990-1992 and 2000-2002 samples were asked to indicate their predisposition to meeting diverse peers. Data were recoded and reverse-coded (1= not at all important to 5=of crucial importance). For the 2000-2002 sample, responses were scored on a four-point scale (1=very unlikely to 4=very likely). Students were also asked at college entry about their agreement that supporting diversity education is part of the mission of

higher education. Responses for the 1990-1992 cohort were measured on a scaled index of three items scored on a four-point Likert scale and reverse-coded (1= strongly disagree to 4=strongly agree). Responses for the 2000-2002 cohort were measured on a four-point Likert scale and reverse-coded (1=strongly agree to 4=strongly disagree). In addition to the question at entry, the 2000-2002 sample was asked about their frequency of interactions with LGBT peers (precollege).

Pre-tests of the Outcome Measures

The final set of inputs in the conceptual model are what are known as "pre-tests" for the outcome measures (Astin, 1993b). Because the I-E-O model is designed to assess the relative impact of college on students' outcomes, it is vital that the researcher understand the students' orientations to the outcome in question prior to college entry. It is helpful to know how open students are to diversity before they entered college in order to be able to assess any change experienced by students due to the college experience. This way, one can discern more reliably if the influences on the outcome can be attributed to the college environment or if the students were already predisposed toward that outcome in the first place. Because the data are longitudinal, it is possible to measure student personal and political attitudes about and race/ethnicity and sexual orientation before they started college. Thus, the outcome measures carefully parallel each respective pre-test measure to control for students' attitude predispositions and to assess change in attitudes over the first two years of college. This allows for a more accurate assessment of the college experiences on college outcomes.

College Experiences: Student College Experiences with Diversity

The model examines student college engagement with diversity. Because of the focus of this study, the model separates curricular experiences from co-curricular experiences.

Specifically, the model examines enrollment in a diversity course. Drawing from the literature, the model also includes several co-curricular and interaction measures. These include informal interactions with diverse peers and participation in diversity workshops.

Diversity Coursework

A great deal of care was taken with the construction of the coursework measure. In the 1990-1992 sample, respondents were asked to respond to one item about various aspects of exposure in formal education settings:

 How much have you been exposed to information and activities devoted to understanding other racial/ethnic groups and inter-racial-ethnic relationships: In course readings, lectures, and discussions about course readings, lectures, and discussions?

Responses were measured on a five-point scale (1=not at all to 5=a great deal). ⁶

For the 2000-2002 sample, participation in college curricular activities focused on diversity was measured through multiple variables examining courses that include readings and materials on race/ethnicity, gender, and oppression. Respondents were asked to indicate the frequency of course enrollment along a four-point scale (1=none to 4=three or more):

⁶ Students in the 1990-1992 sample were asked if they had participated in University course 299 (Race, Ethnicity, and Racism), which has been called the "centerpiece course" of the requirement (University of Michigan College of Literature, 1995). Because the data included too few positive responses to this variable, it was deleted from the analyses (1.3% of the 1990 respondents).

How many courses have you enrolled in that included the following:

- Opportunities for class discussions/interactions with other students
- Courses with materials/readings on gender issues
- Courses with materials/readings on oppression
- Courses with materials/readings on race and ethnicity issues
- Courses with opportunities for intensive dialogue across race

An additional item addressed class discussions about race and ethnicity. Responses were measured on a five-point scale (1=never to 5=very often). Because of the variation on how curricular participation was asked on the MSS and Diverse Democracy surveys, decisions had to made that would identify a variable with comparable coding, semantic similarity in what was asked and the response options provided, and the scaling of the responses. For the current study, participation in diversity coursework was a constructed variable including MSS data on "how much exposure to information and activities devoted to understanding other racial/ethnic groups and inter-racial-ethnic relationships: In course readings, lectures, and discussions about course readings, lectures, and discussions?" and Diverse Democracy data on "how many courses have you enrolled in that included materials/readings on race and ethnicity issues."

Extra-curricular measures: Extracurricular engagement, interaction across groups

While a central element of this study is attempting to understand the impact of diversity coursework separate from other extra-curricular impacts, it is still important to analyze the interactions that students have outside of the formal classroom. In addition to diversity coursework, diversity workshops have been found to have a positive relationship (Pascarella et al., 1996; Whitt et al., 2001). It is important to include this measure because research stresses

campus commitments to a broad amount and variety of diversity programming outside of the formal curriculum.

Intergroup contact includes both the quality of interaction and the frequency of contact (Gurin et al., 2002). Additional analyses were run to include unique items for the 2000-2002 cohort which measured the degree to which students studied and socialized with diverse peers. Positive interactions across race are represented by a scaled index of seven items that measure how often students had intellectual, honest, and personal interactions across race outside of the class and dined, socialized, or studied with racially diverse peers. For each item, students were asked to rate the frequency with which they had a positive interaction across race along a five-point scale (1=never, 2=seldom, 3=sometimes, 4=often, 5=very often).

Hypotheses

A number of hypotheses were generated based on the literature review presented in Chapter 2, the research questions, and the variables identified for the analyses.

1. Participation in coursework that addresses diversity will have a more positive influence on student change in attitudes about race/ethnicity than about attitudes about sexual orientation.

This hypothesis is supported by consistent research findings about the transformative capacity of diversity coursework on student attitudes about race/ethnicity (Antony, 1993; Astin, 1993b; Chang, 2000; Engberg, et al., 2004; Gurin, et al., 1999; Hurtado, et al., 2001; Hyun 1994; Mayhew et al., 2006; Milem, 1994, 2005; Peterson, et al., 2000; Smith, 2009; Williams et al., 2005) and the emerging body of research on student attitudes about sexual orientation (Bannister, 2000; Case & Stewart, 2010; Dimopoulos et al., 2004; Kardia, 1996; Ouellette & Campbell, 2014; Renn, 2000; Smith, 2009).

2. Participation in diversity workshops will have a more positive influence on student change in attitudes about race/ethnicity than about attitudes about sexual orientation by the end of the sophomore year.

This hypothesis is supported by consistent research findings about the positive effects of participation in campus diversity workshops on student attitudes about race/ethnicity (Antony, 1993; Astin, 1993b; Engberg, 2004; Hyun, 1994; McCauley et al., 2000; Milem, 1991; Springer, et al., 1996; Stephan & Stephan, 2000, 2001) and an emerging body of research on student attitudes about sexual orientation (Dessel, 2010; Dessel et al., 2011; Dessel et al., 2013; Rye & Meaney, 2009).

3. Students' personal attitudes about race/ethnicity and attitudes about sexual orientation will show a greater change from the time of college entry to the end of the sophomore year for the 2000-2002 cohort (Diverse Democracy Project) than the 1990-1992 cohort (Michigan Study).

This hypothesis follows research examining the generational effect on attitudes about race/ethnicity (Engberg et al., 2004; Nteta & Greenlee, 2013; Welch & Sigelman, 2011) and about sexual orientation (Baunach et al., 2010; Becker, 2012; Becker & Scheufele, 2011; Brewer, 2008; Rankin, 2004).

4. Students' desire at the time of college entry to meet diverse individuals will be more positively related to their attitudes about race than to their attitudes about sexual orientation by the end of the sophomore year.

This hypothesis is drawn from a rich body of research about informal interactions among students on campus, specifically examining the impact of cross-racial interactions (D'Augelli, 1990; Denson, 2009; Gurin et al., 2002; Herek, 1988; Hurtado 2005; Pettigrew & Tropp, 2006; Rankin, 2003, 2004; Saenz et al., 2007).

5. Religiosity will negatively influence attitudes about sexual orientation at college entry. It will not have the same negative influence on attitudes about race/ethnicity.

This hypothesis follows previous research where studies have consistently found an inverse relationship between religious involvement and tolerance or respect for sexual diversity (Bannister, 2000; Herek, 1984, 1987; McFarland, 1989; Henley & Pincus, 1978; Obear, 1991; Saad, 2007; Wolfe, 1998; Kardia, 1996; Taylor, 1994; Engberg et al., 2004).

Overview of Analytical Methods

Although the study employs two sets of data collected from two cohorts of University of Michigan undergraduates, it is not intended to be a replication study. The primary goal of the research is to focus on the unique contribution of college experiences on student personal and political attitudes about race/ethnicity and about sexual orientation while controlling for other influential factors. The data are analyzed using the SPSS Statistical Analysis package (Version 21.0) and AMOS (Version 21.0) statistical software. This study employed several types of quantitative methods in order to answer the research questions and hypotheses posed. The methodological analysis consisted of four parts: data preparation, descriptive analyses, multiple regression analyses, and structural equation modeling.

Data Preparation

As a preliminary step, the original data were transformed to fit the parameters of the study and methodological analyses. Variables were recoded or reverse-coded, as needed, for more accurate and logical representations in the conceptual model. All individual interval items and scale interval measures were coded so that the highest value reflected being more supportive

of diversity. The next step in the data preparation was the construction of factor scales as a method of data reduction. Constructs were combined to form scales that best represented concepts in the conceptual model. As a method of data reduction, principal axis factoring was conducted and then scaled indices across different questions sets in the two surveys were created. Eigenvalues, factor loadings, cumulative percent variance, standardized Cronbach alpha reliability, and conceptual fit of variables within individual construct measures were all considered when building the factors. A scale with a high index of internal consistency shows that the items are substantially intercorrelated and that they are working together to measure the same underlying variable. Factor scales for the sexual orientation and race/ethnicity pre-test and outcome variables and several independent variables were computed and used in subsequent analyses. Appendix C provides factor loadings and reliabilities for these scales.

Descriptive Analyses and Univariate Analyses

Descriptive relationships were utilized to examine differences in student attitudes and personal beliefs from entrance to the end of their second year for both samples. A series of chi-square distributions that helped identify significant differences among key variables in the study were examined. The first phase of the analyses examined the data from both studies in the aggregate in an effort to understand ten-year differences. Descriptive statistics are analyzed to better understand the distributions and frequencies of the variables in the study. Correlation matrices are used to analyze the relationships between the variables in the study. Univariate analyses included chi-squares testing for categorical variables and t-tests for continuous variables.

Multivariate Analyses

Bivariate analyses were performed to examine direct relationships between individual constructs and student attitides at entry and as outcome measures. The next phase of this study involved independent paired sample t-tests and ANOVA tests to determine if there were significant mean differences from year 1 to year 2. Multivariate analyses were performed using linear regression methods. Multiple regression analyses were employed to estimate the coefficients of the model.

Structural Equation Modeling

According to Cooley (1978), "the purpose of the statistical procedures is to assist in establishing the plausibility of the theoretical model and to estimate the degree to which the various explanatory variables seem to be influencing the dependent variables" (Cooley, 1978, p. 13). The final series of quantitative analyses in this study consists of structural equation modeling (SEM). The SEM analyses in this study were conducted using version 21.0 of the AMOS statistical software program. SEM is a statistical technique that is used to estimate, analyze, and test models which specify relationships among variables. SEM allows for testing and estimating causal relationships using a combination of statistical data and causal assumptions. SEM provides for the simultaneous estimation of hypothesized regressions using an estimated covariance matrix. This technique generates goodness of fit measures to evaluate the overall fit of the proposed model. That is, SEM examines the covariances among proposed variables to determine if the hypothesized relationships between the concepts in the model are likely.

SEM provides advantages over traditional path analysis, in that it includes the assessment of the overall fit of a hypothesized model and takes into account measurement errors to obtain more precise coefficient estimates (Engberg, 2004; Engberg et al., 2004; Klem, 2000; Kline, 2005; Maruyama, 1998; Meader, 2004). Error variables include both the effects of those variables omitted from the model and the effects of measurement error (Klem, 2000). For the current study, a recursive path model with observed variables is developed and tested. The analyses included identifying a parsimonious model based on theory, previous research findings, and examination of the univariate and multivariate results. The measurement models are then tested to confirm the overall validity and reliability of the relationships.

Limitations of the Study

The current study utilizes data collected from a single institution, which limits the study findings in terms of its ability to represent a national context. However, the data and the context in which the original surveys were conducted possess many qualities that make it a beneficial study. This study utilizes unique data from two-waves of two longitudinal studies on undergraduate expectations, perceptions, and experiences of diversity at the University of Michigan. While the data are limited to a single institution, its longitudinal nature allows for differences in student attitudes to be examined over time. The relative effects of the college experience can be more accurately measured than with a cross-sectional study because students were surveyed throughout their time at the University of Michigan and not just at one time point.

The single institution approach limits the ability to generalize research findings between and across other colleges and universities. Because single institution studies are limited in their generalizability, the institutional context needs to be taken into consideration in the breadth of

interpretability. Promising practices can be highly contextual. Developing and implementing campus interventions and curricular offerings such as the ones being investigated in this study can be differently effective depending on size, type, and even location of campus. Certainly the campus history, climate, and culture can contribute to the successful adoption of one campus's intervention on another campus. While recognizing this limitation, I also recognize that the University of Michigan provides an ideal site to conduct this study because of its long-standing diversity requirement, public commitment to diversity, and the national attention of the U.S. Supreme Court's consideration of the University's arguments for the educational benefit of diversity (Gurin, Lehman, et al., 2004; Inkelas, 2000). While practices that successfully work at one institution may not be easily transferred to a different kind of institution, the core principles that underlie promising practices may still be applicable. A within-college, longitudinal focus does allow the research model to be tested in a defined context, where knowledge about the institution may help contribute to a more full analysis. Both student and institution-specific characteristics can be considered in the analyses.

Racial and ethnic issues informed the development of both the Michigan Study and the Diverse Democracy surveys. Although gender and sexual orientation were secondary concerns, these data nonetheless provide a rare opportunity to examine sexual orientation in relation to campus diversity efforts on a large-scale, longitudinal sample, which made this an acceptable limitation.

Selection factors should also be considered. Students who choose to participate in diversity-related campus efforts may be different along important characteristics from students who do not choose to participate. A related consideration is that if students are opposed to diversity, they might be more likely to choose not to answer the surveys. Additionally, this study

relies on self-reported data for all of the variables in the model with the exception of SAT/ACT scores, which were collected directly from the institution. Students indicated their own attitudes with no independent measures used to cross-check their evaluations. Their survey responses cannot be interpreted as validated measures of demonstrated positive attitudes regarding race/ethnicity or regarding sexual orientation. Although the social desirability of their responses needs to be considered, many researchers have established that self-reports are credible means of examining student outcomes (e.g., Gurin et al., 2002; Pascarella & Terenzini, 1991).

Interpretation should also consider how study conditions support the validity of self-reports.

These supporting conditions include: 1) the information requested is known to the respondents;
2) the questions are phrased clearly and unambiguously; 3) the questions refer to recent activities; 4) the respondents think the questions merit a serious and thoughtful response; and 5) answering the questions does not threaten, embarrass, or violate the privacy of the respondent or encourage the respondent to answer in socially desirable rather than in truthful ways (Hayek, Carini, O'Day, & Kuh, 2001; Kuh, 2005).

This study assessed only changes during the first two years of college. Changes might take place at a different rate or even in a different direction during the remainder of the college career. The first two years tend to coincide with student general education coursework, compared to coursework in a student's major field of study during the final two years of study (Springer et al., 1995). Since most students enroll in a diversity course early in their college career, this study allows us to examine the significance of these classes on overall change in attitudes.

The next chapter (Chapter 5) presents the results of descriptive, univariate, a series of multivariate analyses, and structural equation modeling to understand how all of the constructs

work collaboratively to shap	e student attitude:	s regarding rac	e/ethnicity and	regarding sexua
orientation.				

Chapter 5 Results

This chapter presents the findings from the analyses conducted to test the model and measures previously described. The results are divided into three sections. The first section begins with an examination of the background characteristics of the two cohorts of students in the study (Michigan Study, 1990-1992 and the University of Michigan subset of the Diverse Democracy Project, 2000-2002), including both descriptive and univariate analyses to identify any differences in cohort characteristics. This section also includes information about students' background characteristics at their time of entry to the university and at the end of their sophomore year, and an examination of the pre-college and college experiences associated with change in student personal attitudes about race/ethnicity and about sexual orientation. Finally, this section presents the results of analyses of the relationship enrolling in a diversity course has on student attitudes regarding race/ethnicity and regarding sexual orientation, and how those attitudes differ for students completing their second year of college in 1992 and in 2002.

Collectively, these data can provide a helpful profile of the students in the two cohorts.

The second section introduces multivariate analyses to examine measures of student attitudes toward race/ethnicity and attitudes toward sexual orientation. This section concludes with the results of the first of several discrete analyses of the relationship between students' background characteristics and their attitudes at both time points. Because this study draws upon data from two cohorts (1990-1992 and 2000-2002) and two time periods within the college

experience (measured at college entrance and at the end of the sophomore year), care will be taken to clarify time parameters throughout the discussion.

The third section examines structural equation modeling (SEM) results. Attention in the discussion is concentrated on meaningful comparisons that can be drawn from the data. In an effort to understand the direct and indirect relationships, analyses then address the question of whether the model developed for the 1990-1992 cohort holds for the 2000-2002 cohort.

Student Background Characteristics and Attitudes

Because the impact of the college experience on students' attitudes must take into account the students' characteristics before entering college, it is important to examine the background characteristics of the students in both cohort groups. Table 5.1 presents the results of the descriptive analyses for the Michigan study (1990-1992) cohort and the Diverse Democracy Project (2000-2002) cohort. Of the respondents from the entering class of 1990 included in this study sample, students of color represented 31% of the sample population. Students' mean SAT composite was 1169.03 (SD = 158.24), and 61.3% (M = 3.71, SD = 1.16) of their mothers had a bachelor's degree or higher. These students came to the university from largely segregated backgrounds with 82.6% (M = 1.77; SD = 1.06) from predominantly or all White neighborhoods and 76.2% (M = 1.97, SD = 1.0) from predominantly or all White high schools. More than 85% (M = 3.22, SD = .79) of respondents indicated at entry to college that they wanted to meet people from diverse backgrounds. When asked how religious they were, 5.3% considered themselves to be very religious, 27.5% religious, and 45.9% somewhat religious. In contrast, 21.2% described themselves as not at all religious (M = 2.83; SD = .820).

Of the respondents from the entering class of 2000 included in this study sample, students of color represented 27.5% of the sample population. Students' mean SAT composite was 1250 (SD = 158.24), and 64% of their mothers had a bachelor's degree or higher (M = 3.8, SD = 1.12). These students came to the university from largely segregated backgrounds with 82.2% from predominantly or all White neighborhoods and 73.1% from predominantly or all White high schools. More than 88.2% of respondents indicated at entry to college that they wanted to meet people from diverse backgrounds (M = 3.29, SD = .74). When asked about religion, 10.3% considered themselves to be very religious, 21.4% religious, and 24.3% somewhat religious. In contrast, 44% described themselves as not at all religious (M = 3.02, SD = 1.03).

Table 5.1: Student Background Characteristics, 1990-1992 and 2000-2002 Cohorts

Student Background Characteristics	1990-1992 Cohort (MSS)			2000-2002 Cohort (DivDe	mo)	
	M	SD	n	M	SD	n
Gender	.51	.5	913 (men = 444; women = 466)	.46	.5	756 (men = 406; women = 349)
African American	.10	.30	88	.08	.27	58
Asian American/Asian	.16	.37	146	.15	.36	112
Latino	.05	.22	48	.05	.22	38
White	.69	.46	626	.72	.45	548
SAT Score	1169.03	158.24	911	1249.83	130.76	756
Mother's Education	3.71	1.16	885	3.82	1.12	729
Diversity of High School & Neighborhood	.02	.90	873	.09	.85	744
Religiosity	2.83	.82	904	3.02	1.03	748
Desire to meet diverse people	3.22	.79	901	3.29	.74	742

As noted earlier, in all decisions about how to handle the merged dataset, all efforts were made to stay true to the original survey data preparations of the two original survey designs. As a result, the weight variable was retained for all data analyses of the Preparing College Students for a Diverse Democracy (2000-2002 cohort), and the Michigan Student Study (1990-1992 cohort) analyses were conducted on unweighted data by assigning a weight of one. Because the addition of a weight variable is more likely to affect the descriptive statistics, Table 5.1 presents the percentages in addition to means and standard deviations. Compared to the 31% in the 1990 sample population, the 2000 sample population included 27.5% students of color. Students' mean SAT composite was higher than that in the 1990 sample population (1169.03 in 1990 and 1249.85 in 2000). In addition to this mean increase in SAT composite, while 61.3% of the students in the 1990 sample indicated that their mothers had bachelor's degree or higher, that measure increased to 64% for the 2000 student sample. Similarly to the 1990 respondents, the students in the 2000 sample population came to the university from largely segregated backgrounds (82.6% from predominantly or all White neighborhoods in 1990 and 82% in 2000). Similarly to this measure of neighborhood diversity, researchers often examine the degree of diversity in high school environments. Students in the 1990 sample population arrived at the university from 76.2% from predominantly or all White high schools (M = 1.97; SD = .995) and 73% in the 2000 sample population (M = 2.03; SD = .95).

These data provide helpful information about the background of the students in the two cohorts – the levels of education in the households where they were raised, the degree of diversity or segregation present in their neighborhoods, and in their high schools. The surveys also allow us to understand how the students in our sample population considered the importance of meeting people from diverse backgrounds during their college experience. More than 85% (M

= 3.22; SD = .79) of the 1990 respondents and more than 88% (M = 3.29; SD = .74) of 2000 respondents indicated at entry to college that they wanted to meet people from diverse backgrounds during college. Further analyses provided a more granular examination of predisposition to meeting diverse peers during college. From 1990 to 2000, the proportion of White students who indicated in the entrance questionnaire that meeting diverse people was very important was higher in 2000 than in 1990 (36.6% in 1990 vs. 41.3% in 2000); a similar pattern was evident for Latino/a students (34% vs. 52.8%).

One additional measure to consider is the level of religiosity of students in our samples. This is particularly important to consider because of the negative correlations frequently associated with sexual orientation and religiosity. Students who reported that they considered themselves to be very religious differed in the two samples, 5.3% in 1990 and 10.3% in 2000. In 1990, 27.5% of the respondents described themselves as religious compared to 21.4% in 2000. Nearly 46% of the 1990 sample compared to nearly a quarter of the 2000 sample (24.3%) described themselves as somewhat religious. Perhaps the more striking contrast is between the 21.2% of the 1990 respondents who described themselves as not at all religious compared to the 44% of the 2000 sample. These initial measures of student self-reports of how religious they consider themselves at the beginning of their college experience contribute to the picture we are composing – an additional element in the different backgrounds, experiences, and values that have contributed to the attitudes of the entering students.

An examination of difference in background characteristics – a story of two cohorts

The descriptive measures provide a helpful initial picture of the two longitudinal cohorts of students. In order to more fully understand if there is a significant difference in the

characteristics of students in the 1990-1992 cohort compared to the 2000-2002 cohort, a series of chi-square tests was conducted for the nominal background variables, and t-tests were conducted for continuous background variables. An analysis of the statistical significance for race and gender across the two cohorts yielded important initial results for consideration (see Table 5.2). In terms of gender, a modest but significant difference was found, $X^2(1, N = 815) = 4.10$, p = .043. In terms of race, no statistical significance between the two cohorts was found: African American students, $X^2(1, N = 146) = 2.08$, p = .149, Asian American/Asian students, $X^2(1, N = 2.58) = .50$, p = .478, Latino students, $X^2(1, N = 86) = .06$, p = .812 or White students, $X^2(1, N = 1174) = 2.49$, p = .114.

Table 5.2: Chi-square Tests of Background Characteristics, 1990-1992 and 2000-2002

	Conorts		
Student Background Characteristics	df	X^2	p
Gender	1	4.10	.043*
African American	1	2.08	.149
Asian American/Asian	1	.50	.478
Latino	1	.06	.812
White	1	2.49	.114
·			

^{*}p<.05, **p<.01, ***p<.001

For both the Michigan Study (1990-1992) and Diverse Democracy (2000-2002) cohorts, paired samples t-tests were conducted on each first- and second-year dependent measure to determine if there were significant mean differences between the two cohorts. Table 5.3 presents the results of the independent samples t-test for the students in 1990-1992 cohort and students in 2000-2002 cohort. The changes in SAT score (t = -11.218, p<.001) and student pre-college

participation in religious activities were highly significant and negative (t = -4.150, p<.001), indicating an increase in SAT composite score and a decrease over time in student pre-college religiosity. Additionally, effect size can help identify differences between groups that warrant a more careful examination. Cohen's effect size value suggested a moderate practical significance for SAT and a small practical significance for religiosity⁷.

Table 5.3: Independent Samples T-Tests Results for Students in 1990 Cohort and Students in 2000 Cohort

	m 2000 C0	mor t		
Student Background Characteristics	Students in 1990	Students in 2000		_
	Mean	Mean	Mean Difference	ES (d)
SAT score	1169.03	1249.85	-80.82***	56
Mother's education	3.71	3.81	11	09
High School/Neighborhood Diversity	.02	.09	07	08
Religiosity (pre-college)	2.83	3.02	19***	20
Want to meet diverse people	3.22	3.29	07	08

^{*}p<.05, **p<.01, ***p<.001

Diversity Coursework

Additional analyses were conducted to ascertain any difference among the two student cohorts in terms of their participation in diversity coursework during their first two years of college. A statistically significant relationship exists across the two cohorts for gender (chi-square with three degrees of freedom = 36.827, p = 0.0), with significantly more women enrolling in diversity courses. No statistically significant relationship was found for race.

⁷ Cohen (1988) has given a widely (but not universally) accepted set of characterizations, where an effect size of 0.2 to 0.3 is considered small, 0.5 is "medium" and 0.8 to infinity is a "large" effect.

A one-way analysis of variance (ANOVA) was performed for student participation in diversity coursework in order to determine statistical similarity between the students who participated in diversity courses and those who did not. Results are presented in Table 5.4.

Table 5.4: ANOVA Results for Student Participation in Diversity Coursework, Both Cohorts Across Time

Student Background					
Characteristics					
		Sum of		Mean	
		Squares	df	Square	F
SAT score	Between Groups	706629.97	3	235543.32	10.38***
	Within Groups	36548371.82	1610	22700.85	
	Total	37255001.79	1613		
Mother's education	Between Groups	2.03	3	.68	.52
	Within Groups	2049.24	1558	1.32	
	Total	2051.27	1561		
HS/Neighborhood Diversity	Between Groups	4.05	3	1.35	1.76
	Within Groups	1200.76	1564	.77	
	Total	1204.81	1567		
Religiosity	Between Groups	5.35	3	1.78	2.08
	Within Groups	1365.96	1596	.86	
	Total	1371.31	1599		
Want to meet diverse people	Between Groups	12.51	3	4.17	7.10***
	Within Groups	931.73	1587	.59	
	Total	944.24	1590		
Pre-college LGB Interaction ¹	Between Groups	12.83	3	4.28	4.66**
-	Within Groups	643.29	701	.92	
	Total	656.11	704		

^{*}p<.05, **p<.01, ***p<.001

The analyses show a significant effect of SAT score on participation in diversity coursework at the p<.001 level (F = 10.376, p = .000) for all students from both cohorts. A significant effect was also measured for students who want to meet diverse people during their college experience (F = 7.102, p = .000). An additional finding of interest involves a variable that is only available for the 2000-20002 students, namely pre-college interaction with LGB people (F = 4.659, p = .000).

¹Variable is unique to 2000-2002 respondents

.003). Those students who had contact with LGB people before entering college were more likely to participate in diversity courses during their first years in college.

Student Attitudes: Race/Ethnicity and Sexual Orientation

I conducted initial analyses to determine if the two cohorts in the study represent different attitude measures at the point of college entry. Table 5.5 presents the results of an independent samples T-test. The results show a significant difference on both pre-test measures. The difference in student attitudes regarding race/ethnicity was highly significant (Mean Difference = .21, p<.001). The difference in student attitudes regarding sexual orientation was also significant (Mean Difference = -.82, p<.001).

Table 5.5: Independent Samples T-Tests Results for Students in 1990 Cohort and Students in 2000 Cohort

Student Attitudes at Entry	Students	Students	
	in 1990	in 2000	
	Mean	Mean	Mean
			Difference
Attitudes: Race/Ethnicity at entry	.08	13	.21***
Attitudes: Sexual Orientation at entry	19	.63	82***

^{*}p<.05, **p<.01, ***p<.001

I next ran two ANOVAs to understand the relationship between the personal attitude measures at the entry to college for those students who participated in diversity coursework during their first two years of college. Table 5.6 presents the results for attitude measures among students who enrolled in diversity coursework across the two cohorts. There is a significant effect for student attitudes about race/ethnicity at the p<.001 level (F = 7.094, p = .000) but not for student attitudes for sexual orientation. The results of these analyses regarding pre-test

variables yielded important initial findings that will be further developed throughout the following analyses.

Table 5.6: ANOVA Results for Student Participation in Diversity Coursework, Both Cohorts Across Time

Student Attitudes					
		Sum of		Mean	
		Squares	df	Square	F
Attitudes: Race/Ethnicity at entry	Between Groups	14.998	3	4.999	7.094***
	Within Groups	1062.74	1508	.705	
	Total	1077.74	1511		
Attitudes: Sexual Orientation at entry	Between Groups	2.911	3	.970	1.003
	Within Groups	1448.94	1498	.967	
	Total	1451.85	1501		

^{*}p<.05, **p<.01, ***p<.001

In order to understand in both combined samples which, if any, student pre-college and during-college characteristics and experiences predict change in attitudes about sexual orientation and race/ethnicity, I conducted a series of multiple regression analyses. Because time is modeled in later analyses, these initial examinations were intended to show total effects. Table 5.7 shows the results from the multiple regression analyses for changes in attitudes toward sexual orientation across the two cohorts. Of the background characteristics, religiosity (β = .129, p<.001) and gender (female) (β = .071, p<.05) are both significantly related to attitudes toward sexual orientation. Race was not significantly related to changes in attitudes regarding sexual orientation. Unsurprisingly, the pretest measure of attitudes regarding sexual orientation at college entry is highly significant and the strongest predictor by more than a factor of two (β = .544, p<.001). Interaction with LGB individuals before college was not related to change in attitudes regarding sexual orientation, but interaction with LGB individuals during college was positive and highly significant (β = .227, p<.001). It is noteworthy that college interaction with

LGB individuals was the only significant during-college measure related to change in attitudes toward sexual orientation.

Table 5.7: Relationships between Student Background Characteristics, Pre-college Measures, College Measures and Attitudes Regarding Sexual Orientation, Both Cohorts Across Time

	Across Time		
Variable	b	Std.	В
	(unstandardized)	Error	(standardized)
Background Characteristics			
Gender (0=male; 1=female)	.127	.053	.071*
African American	081	.120	023
Asian American/Asian	008	.078	003
Latino	.073	.117	.018
SAT score	.000	.000	.044
Mother's education	005	.022	007
High School/Neighborhood Diversity	028	.033	026
Religiosity	.112	.026	.129***
Want to meet diverse people	.047	.037	.040
Pre-college LGB Interaction ¹	044	.033	048
Pre-College Measures			
Attitude: Race/Ethnicity at entry	.019	.035	.018
Attitude: Sexual Orientation at entry	.531	.034	.544***
During College Measures			
Mission of Higher Education	001	.034	001
Diversity Course Enrollment	002	.025	002
Diversity Workshop	.056	.057	.029
Out of Class Interaction w/ Diverse Peers ¹	.052	.030	.056
During-college LGB Interaction ¹	.215	.031	.227***
Attitude: Race/Ethnicity (2 nd year)	.066	.037	.066
$R^2 = .558***$			

^{*}p<.05, **p<.01, ***p<.001

Table 5.8 shows the results from the multiple regression analyses for predicting change in student attitudes regarding race/ethnicity across the two cohorts. Of the background characteristics, student race/ethnicity was positively related to change in attitudes about race/ethnicity. Being African American was the most highly significant measure among the

¹ Variable is unique to 2000-2002 respondents

race/ethnicity variables ($\beta = .129$, p<.001). Race/ethnicity is significantly and positively related to the attitudes about race/ethnicity. Compared to White students, all students of color were more likely than White students to show a change in attitudes. African American students were more likely to show a change in their attitudes than any other group, but students who identified as Latino ($\beta = .078$, p<.05) and Asian American/Asian ($\beta = .072$, p<.05) were also significantly more likely to show change in attitudes compared to Whites. Religiosity ($\beta = -.080$, p<.05) and wanting to meet diverse people at college entry ($\beta = .071$, p<.05) were also significantly associated with changes in attitudes about race/ethnicity. Again unsurprisingly, the pretest attitude measure for attitudes toward race/ethnicity at college entry is positive and highly significant ($\beta = .386$, p<.001). In addition, three college experience measures were significantly related to attitudes regarding race/ethnicity. Agreeing that by including a multicultural perspective in the curriculum, universities are fulfilling the real purpose of higher education has a highly significant and positive relationship ($\beta = .161$ p<.001) with change in attitudes regarding race/ethnicity. Participating in diversity coursework ($\beta = .215$, p<.001) and participating in a diversity workshop ($\beta = .094$, p<.01) were also both significantly and positively related to changes in attitudes regarding race/ethnicity. It is worth noting the relationship between changes in attitudes regarding race/ethnicity and participation in a diversity workshop is stronger than that for all other variables except the pretest attitude measure.

In looking across the two models of attitudes, there are some differences in the relationships between background characteristics and attitudes for the race/ethnicity regression and the sexual orientation regression. Being a woman (compared with being a man) was significantly related to changes in attitudes toward sexual orientation, while being African American, Latino, or Asian American/Asian (compared to White students) was significantly and

positively related to changes in attitudes regarding race/ethnicity but not in changes in attitudes regarding sexual orientation.

Table 5.8: Relationships between Student Background Characteristics, Pre-college Measures, College Measures and Attitudes Regarding Race/ethnicity, Both Cohorts Across Time

	1 ime		
Variable	b	Std.	В
	(unstandardized)	Error	(standardized)
Background Characteristics			
Gender (0=male; 1=female)	.021	.059	.012
African American	.448	.132	.129***
Asian American/Asian	.186	.086	.072*
Latino	.315	.129	.078*
SAT score	.000	.000	.049
Mother's education	.010	.025	.013
High School/Neighborhood Diversity	.024	.037	.023
Religiosity	069	.029	080*
Want to meet diverse people	.084	.041	.071*
Pre-college LGB Interaction ¹	.010	.036	.011
Pre-College Measures			
Attitude: Race/Ethnicity at entry	.394	.035	.386***
Attitude: Sexual Orientation at entry	004	.045	004
During College Measures			
Mission of Higher Education	.181	.037	.161***
Diversity Course Enrollment	.180	.027	.215***
Diversity Workshop	.178	.062	.094**
Out of Class Interaction w/ Diverse Peers ¹	005	.033	005
During-college LGB Interaction ¹	017	.036	018
Attitude: Sexual Orientation (2 nd year)	.081	.045	.082
$R^2 = .447***$			

^{*}p<.05, **p<.01, ***p<.001

Another pre-college background variable that yielded results worth consideration was student's self-report of religiosity. Lower levels of self-reported religiosity at college entry were associated with positive changes in attitudes about sexual orientation at the end of the sophomore

¹ Variable is unique to 2000-2002 respondents

year. Higher levels of self-reported religiosity were associated with positive changes in attitudes about race/ethnicity at the end of the sophomore year.

In terms of college experience variables, while wanting to meet people from different backgrounds was not significantly related to attitudes toward sexual orientation, it was significantly and positively related to changes in attitudes toward race/ethnicity. In contrast, interaction with LGB individuals during college was highly significant in the regression analyses for sexual orientation but did not surface as a significant influence in the race attitude analysis. Pre-college interaction with LGB individuals was not a significant predictor in either regression analysis. Contact experiences during college thus appear to be the route to positive attitude change, confirming the findings of Kardia (1996).

Agreeing that including a multicultural perspective in the curriculum helps universities fulfill the real purpose of higher education surfaced as a highly significant influence in the race/ethnicity regression analysis but was not significant in the sexual orientation analysis. It is important to note that both the measures of participation in curricular and extra-curricular activities were positive predictors in the race/ethnicity regression analysis but not significant in the sexual orientation analysis.

Curricular Interventions and Changes in Student Attitudes

Researchers have examined a broad range of benefits associated with enrolling in a diversity course, including changes in students understanding and attitudes about race and about sexual orientation. This study asked if and how enrolling in a diversity course differently influences the development of these attitudes and across the 10-year period of time. The regression results indicate that enrolling in diversity courses is highly significantly related to

changes in the attitudes toward race/ethnicity regression analysis but was not significant in changes on attitudes about sexual orientation. The next analyses further examine if enrolling in diversity courses can have a different effect on the development of attitudes about race/ethnicity compared to the development of attitudes about sexual orientation. In order to address this question, a correlation matrix was developed for reviewing bivariate relationships among the two study samples.

Table 5.9: Correlations between attitudes regarding race/ethnicity, attitudes regarding sexual orientation, and participation in diversity coursework, by cohort

Variable	Sexual	Race/Ethnicity	Diversity
	Orientation		Coursework
Michigan Study (1990-1992) at Time	: 2		
Attitudes: Sexual Orientation	1	.240**	.126**
Attitudes: Race/Ethnicity	.240**	1	.150**
Diversity Coursework	.126**	.150**	1
Diverse Democracy (2000-2002) at T	Time 2		
Attitudes: Sexual Orientation	1	.186**	.102**
Attitudes: Race/Ethnicity	.186**	1	.326**
Diversity Coursework	.102**	.326**	1

^{**}p<.01

First, initial bivariate correlations (without controls) show that diversity coursework is positively related to attitudes regarding sexual orientation in the second year of college. The correlation is higher between diversity coursework and attitudes about race/ethnicity for both cohorts and is much higher for the 2000-2002 cohort (r = .102 for sexual orientation compared to r = .326 for race/ethnicity). These results indicate that there is a stronger relationship between enrollment in a diversity course and more positive attitudes about race/ethnicity compared to attitudes for sexual orientation by the end of the sophomore year, for both cohorts. Additionally, the strength of this

relationship is more pronounced for the 2000-2002 cohort than the 1990-1992 cohort. One possible explanation for these differences may be that by 2000, campus diversity efforts had developed and benefited from the decade of attention and improvement. The data support the hypothesis that these campus diversity efforts within the curriculum more successfully address issues of race than other forms of diversity, but modify it in that diversity coursework is not related to attitudes regarding sexual orientation. Predispositions prior to enrollment account for most of the variance in attitudes at the end of the sophomore year. Additionally, these data show the correlation between the end of the sophomore year attitude measures for the two cohorts. Specifically, the correlation is higher for the Michigan Study attitude measures than for the Diverse Democracy Project attitude measures (r = .240 compared to r = .186).

Examining Changes in Student Attitudes Across Time

By building upon the results previously presented, the next set of analyses is designed to better understand how the dependent variables are affected by time. Are the 1992 college experience measures of personal attitudes about sexual orientation and race/ethnicity different from the 2002 measures? For these next analyses, a series of multiple regression analyses was conducted. The source variable (indicating 1990-92 or 2000-02 cohort) was included, and the variables that were unique to the second dataset were removed for this analysis. Table 5.10 presents the regression results for attitudes about sexual orientation and time with cohorts coded 0=MSS; 1=DIVDEMO.

Table 5.10: Predictors of Change in Student Attitudes: Sexual Orientation and Across Time, Combined Cohorts

Variable	b	Std.	В
V di Mole	(unstandardized)	Error	(standardized)
Background Characteristics			
Cohort status (0=MSS; 1=DIVDEMO)	.127	.047	.068**
Gender (0=male; 1=female)	.162	.041	.087***
African American	049	.090	014
Asian American/Asian	130	.056	050*
Latino	022	.086	006
SAT score	.000	.000	.041
Mother's education	.015	.017	.019
High School/Neighborhood Diversity	026	.025	025
Religiosity	.086	.021	.086***
Want to meet diverse people	.043	.027	.035
Pre-College Measures			
Attitude: Race/Ethnicity at entry	003	.028	003
Attitude: Sexual Orientation at entry	.581	.024	.610***
During College Measures			
Mission of Higher Education	.051	.027	.042
Diversity Course Enrollment	.009	.020	.009
Diversity Workshop	.087	.041	.047*
Attitude: Race/Ethnicity (2 nd year)	.082	.030	.074**
$R^2 = .533***$			

^{*}p<.05, **p<.01, ***p<.001

Of the background characteristics, religiosity (β = .086, p<.001) and gender (0=male; 1=female) (β = .087, p<.001) are both significantly related to changes in attitudes toward sexual orientation. In terms of race/ethnicity, Asian American/Asian was the only group relative to Whites to be significantly (and negatively) associated with attitudes regarding sexual orientation (β = -.050 p<.05). The cohort variable (indicating 1990-1992 or 2000-2002) is also significant (β = .068, p<.01), which indicates that there are significant differences in changes among later decades of Michigan student attitudes regarding sexual orientation. Unsurprisingly, the pretest measure of student attitudes about sexual orientation at college entry is highly significant (β = .610, p<.001),

and once this predisposition is controlled we can evaluate the impact of college experiences. Attending a diversity workshop (β = .047, p<.05) was a significant but weak influence. It is noteworthy that the second year measure of student attitudes about race/ethnicity was a significant college predictor (β = .074, p<.01) when the source variable is included in the analyses. This indicates that once differences across decades are taken into account, there is much more relationship between students' college attitudes regarding race and sexual orientation.

The next analyses will consider the predictors of change in attitudes about race/ethnicity across time (cohort variable) (see Table 5.11).

Table 5.11: Predictors of Student Change in Attitudes: Race/Ethnicity Across Time,
Combined Cohorts

	minimed Conorts		
Variable	b	Std.	В
	(unstandardized)	Error	(standardized)
Background Characteristics			
Cohort status (0=1990-92; 1=2000-02)	031	.047	018
Gender (0=male; 1=female)	.024	.041	.014
African American	.482	.088	.154***
Asian American/Asian	.106	.055	.045
Latino	.357	.084	.099***
SAT score	.000	.000	.028
Mother's education	.030	.017	.041
High School/Neighborhood Diversity	.045	.025	.047
Religiosity	022	.021	025
Want to meet diverse people	.102	.026	.093***
Pre-College Measures			
Attitude: Race/Ethnicity at entry	.397	.025	.389***
Attitude: Sexual Orientation at entry	014	.029	016
During College Measures			
Mission of Higher Education	.188	.026	.175***
Diversity Course Enrollment	.146	.019	.174***
Diversity Workshop	.113	.040	.066**
Attitude: Sexual Orientation (2 nd year)	.079	.029	.088**
$R^2 = .452***$			

^{*}p<.05, **p<.01, ***p<.001

Of the background characteristics, both being African American (β = .154, p<.001) and being Latino (β = .099, p<.001), compared to White students, are highly significant predictors of attitudes regarding race/ethnicity. Additionally, wanting to meet diverse people during college (\beta = .093, p<.001) is a highly significant predisposition at college entry. While the source variable (comparing the two cohorts) was highly significant in the sexual orientation attitude model, it was not a significant predictor in the race/ethnicity attitude regression model. Unsurprisingly, the pretest attitude measure for race/ethnicity at college entry is strongest predictor of college attitudes (β = .389, p<.001). Once this is controlled, student's agreement that including a multicultural perspective in the curriculum helps universities fulfill the real purpose of higher education surfaced as a highly significant relationship with changes in attitudes toward race/ethnicity ($\beta = .175$, p<.001) but not in changes on attitudes regarding sexual orientation. Attending a diversity workshop ($\beta = .066$, p<.01) and enrolling in diversity courses ($\beta = .174$, p<.001) were both significant predictors of change in racial attitudes over time. Similar to the findings noted above, it is noteworthy that the second year measure of student attitudes about sexual orientation was significantly related to racial attitudes in college ($\beta = .088$, p<.01) when the cohort variable is included in the analyses.

Looking across the time models, enrolling in diversity courses was a significant measure in the race/ethnicity attitude model but not in changes in students' attitudes regarding sexual orientation analyses. However, participating in diversity workshops remained a significant and positive influence in both time models of attitudes. While religiosity at college entry was significantly related to attitudes toward sexual orientation in college, it was not significantly related to attitudes toward race/ethnicity. The variable that measures student desire at college entry to meet diverse people during college was highly significant predicting attitudes toward

race/ethnicity but not attitudes toward sexual orientation during college. In both time models, the college experience measure of each attitude factor was highly significant in predicting the other attitude: in the sexual orientation attitude model, the college attitude about race/ethnicity and in the race/ethnicity attitude model, the college attitude about sexual orientation was significant.

Although there are key distinctions across the two cohorts, the data identify important college experiences that appear to influence student attitudes about both race/ethnicity and sexual orientation – a central topic in the next section.

Structural Equation Model Results

This next section builds upon the previous analyses, presented above. As has been discussed, the analyses already described contribute important pieces to our understanding of the model and the effect of the variables on student personal attitudes about sexual orientation and race/ethnicity. This next section introduces Structural Equation Modeling (SEM) analyses to contribute additional information about the overall fit of the data to the model in addition to the direct, indirect, and total effects. SEM was employed to understand if the model developed for the 1990-1992 cohort was replicable for the 2000-2002 cohort. SEM has the capacity to estimate direct and indirect effects, accounting for measurement error. For these analyses, a nonrecursive path model with observed variables was developed, which provides a convenient method for estimating indirect effects. Given the temporal sequencing of the measures (separating predispositions from college experiences), it strengthens the capacity to test causal relations on students' attitude development.

Developing the Structural Models: The Total Sample

Initially, a correlation matrix using listwise deletion for handling missing data was developed. This matrix for the total sample was converted to a covariance matrix for use in the SEM analyses (Appendix D). This decision allowed the MSS data not to be weighted, and the Diverse Democracy data to continue to be weighted, preserving the decisions made in the earlier analyses and allowing the analyses to remain consistent with their original collection designs.

SEM was completed using maximum likelihood estimation available within AMOS software.

It is important to keep in mind that sample size is an important consideration in SEM analyses (Klem, 2000). According to Klem (2000), the necessary sample size for reliable results depends on the following matters: the complexity of the model, the magnitude of the coefficients, the number of measured variables associated with the factors, and the multivariate normality of the variable distributions. In other words and relevant to the current study, more cases are needed for a more complex model. For the total model, the sample size was 1543. Because the examination used a nonrecursive path model, there was no potential problem for identification.

The hypothetical model presented in Chapter 2, along with the findings of the literature review and analyses discussed above guided the development of the model in AMOS. SEM analyses should involve careful consideration of the criterion used to assess the plausibility, or fit, of the model. Model fit was determined with commonly available fit indices, such as X^2 test statistic and the Comparative Fit Index (CFI). If the assumption is that the hypothesized model will be consistent with the data, the X^2 goodness of fit test is desired to be both small and not significant (Klem, 2000). The X^2 is the basis for SEM fit indices. However, because the X^2 test statistic is known to be sensitive to sample size, leading to the rejection of models that should fit, additional statistics are frequently used to evaluate model fit. The X^2 and CFI fit indices both

compare the specified model to a model with complete independence. The CFI is considered more acceptable as it approaches values of 1. Values over .9 to .95 are considered indicative of good model fit (Hu & Bentler, 1999). The root mean square error of approximation (RMSEA) was also used to judge model fit. The RMSEA is an estimate of error due to the approximate fit of the model. Because less error is more desirable, RMSEA values below .06 are typically accepted as indicators of good model fit (Browne, 1993). RMSEA values between .06 and .08 are considered a fair fit, and values between .08 and .10 are considered a mediocre fit (Hu & Bentler, 1999; Kaplan, 2000).

Careful structural equation modeling requires the evaluation of a model as well as judicious modification of a model when needed (Klem, 2000). The initial SEM analyses of the base model yielded an overall good fit of the model to the data (X^2 =234.362, df=60, p<0.0001; NFI=.937, NNFI=.851, CFI=.951, and RMSEA=.043). Still, modification indices suggested that the model could be considerably improved by the addition of a direct path from Attitude: Race/Ethnicity (T2) \rightarrow Mission. This link seemed reasonable given both the extant literature and previous analyses. I re-ran the model with this addition. This revision significantly improved model fit, as indicated by a significant change in chi-square (X^2 =158.36, df=30, p<0.0001; NFI=.964, NNFI=.896, CFI=.970, and RMSEA=.053). With this one modification, the model is significantly better than the base model. Supplemental statistical analyses were also conducted to determine if the model could be improved with a reciprocal path between Attitude: Race/Ethnicity (T2) \leftrightarrow Mission. Although modest differences were found (X^2 =149.01, $X^$

Table 5.12 shows the parameter estimates and significance levels for each of the direct effects in the structural model for the total sample with the one modification noted above.

Table 5.12: Direct Effects for the Total Sample with Modification (n = 1543)

Table 5.12: Direct Effects for the Total Sample with Modification (n = 154)						
	b	B	p			
	(unstandardized)	(standardized)				
Direct effects on						
Attitudes: Race/Ethnicity at entry						
Cohort (0=1990-92; 1=2000-02)	233	138	***			
Gender (0=male; 1=female)	.058	.035	.160			
White (SOC referent)	383	208	***			
Want to meet diverse people	.153	.140	***			
High School/Neighborhood Diversity	.114	.120	***			
Mother's Education	.071	.096	***			
SAT	.000	.036	.182			
Attitudes: Sexual Orientation at entry						
Cohort (0=1990-92; 1=2000-02)	.774	.392	***			
Gender (0=male; 1=female)	.440	.224	***			
White (SOC)	.119	.055	.013			
Want to meet diverse people	.215	.168	***			
Mother's Education	.014	.016	.456			
SAT	.001	.084	***			
Attitudes: Race/Ethnicity at entry	.170	.145	***			
Religiosity (T1)	.210	.198	***			
Mission to address diversity						
Cohort (0=1990-92; 1=2000-02)	.191	.119	***			
Attitudes: Race/Ethnicity at entry	.037	.039	.171			
White (SOC)	127	073	.004			
Attitudes: Sexual Orientation at entry	.119	.146	***			
SAT	.000	061	.013			
Attitudes: Race/Ethnicity (T2)	.297	.316	***			
Attitudes: Race/Ethnicity (T2)						
Cohort (0=1990-92; 1=2000-02)	.112	.066	.002			
Gender (0=male; 1=female)	.103	.061	.003			
White (SOC)	297	160	***			
Want to meet diverse people	.115	.104	***			
Attitudes: Race/Ethnicity at entry	.482	.478	***			
Diversity Course Enrollment	.136	.161	***			
Diversity Workshops	.108	.064	.004			
-						
Attitudes: Sexual Orientation (T2)						
Cohort (0=1990-92; 1=2000-02)	.066	.035	.077			
Want to meet diverse people	.047	.039	.038			
Religiosity (Pre-College)	.076	.075	***			
Mission to Address Diversity	.054	.045	.020			
Diversity Course Enrollment	.029	.031	.092			

Attitudes: Sexual Orientation at entry	.628	.657	***
Attitudes: Race/Ethnicity at entry	043	038	.077
Attitudes: Race/Ethnicity (T2)	.088	.079	***
Diversity Workshops			
Cohort (0=1990-92; 1=2000-02)	346	345	***
Attitudes: Race/Ethnicity at entry	.039	.065	.009
Religiosity (Pre-College)	021	039	.106
Mission to Address Diversity	.025	.040	.122
Diversity Courses			
Cohort (0=1990-92; 1=2000-02)	141	070	.011
Gender (0=male; 1=female)	.206	.041	***
White (SOC)	.091	.035	.119
SAT	001	081	.003
Want to meet diverse people	.095	.073	.004
Diversity Workshop	.193	.096	***
Attitudes: Race/Ethnicity at entry	.100	.084	.001

^{*}p<.05, **p<.01, ***p<.001

In addition to the direct effects noted above, indirect (mediated) effects were also examined using bootstrapping. Table 5.13 presents the parameter estimates and significance levels for each of the indirect effects in the structural model for the total sample with the one modification noted above.

Table 5-13: Indirect Effects for the Total Sample with Modification (n = 1543)

b	В	p	
(unstandard	ized) (standard		
040	020	.001	
.010	.005	.127	
065	030	.001	
.026	.020	.001	
.019	.017	.000	
.012	.014	.000	
.058	.036	.006	
.103	.065	.001	
.095	.092	.001	
	040 .010 065 .026 .019 .012	(unstandardized) (standardized) 040	040020 .001 .010 .005 .127 065030 .001 .026 .020 .001 .019 .017 .000 .012 .014 .000 .058 .036 .006 .103 .065 .001

Attitudes: Race/Ethnicity at entry	.169	.178	.001
White (SOC)	149	085	.001
Religiosity (Pre-College)	.024	.028	.001
	.024	.026	.001
High School/Neighborhood Diversity			
Mother's Education	.016	.023	.001
Diversity Course Enrollment	.040	.051	.001
Diversity Workshops	.040	.025	.001
Attitudes: Race/Ethnicity (T2)			
Cohort (0=1990-92; 1=2000-02)	181	107	.001
Gender (0=male; 1=female)	.057	.034	.012
White (SOC)	180	097	.001
High School/Neighborhood Diversity	.057	.059	.001
Mother's Education	.035	.048	.001
Religiosity (Pre-College)	003	003	.001
Attitudes: Race/Ethnicity at entry	.020	.019	.001
Want to meet diverse people	.090	.082	.001
Diversity Workshops	.026	.016	.001
Mission to Address Diversity	.003	.003	.054
Wission to Address Diversity	.003	.003	.034
Attitudes: Sexual Orientation (T2)			
Cohort (0=1990-92; 1=2000-02)	.472	.250	.001
Gender (0=male; 1=female)	.306	.163	.001
White (SOC)	005	003	.882
High School/Neighborhood Diversity	.014	.013	.001
Mother's Education	.017	.021	.126
Want to meet diverse people	.171	.140	.001
* *			
Religiosity (Pre-College)	.133	.131	.001
Diversity Workshops	.019	.010	.001
Diversity Course Enrollment	.014	.015	.001
Attitudes: Sexual Orientation at entry	.006	.007	.009
Attitudes: Race/Ethnicity at entry	.165	.148	.001
Attitudes: Race/Ethnicity (T2)	.016	.014	.015
Diversity Workshops			
Cohort (0=1990-92; 1=2000-02)	003	003	.659
Gender (0=male; 1=female)	.005	.005	.033
· · · · · · · · · · · · · · · · · · ·			
White (SOC)	022	020	.001
Attitudes: Race/Ethnicity at entry	.005	.009	.091
Attitudes: Sexual Orientation at entry	.003	.006	.088
Want to meet diverse people	.008	.013	.001
Mother's Education	.003	.007	.001
Religiosity (Pre-College)	.001	.001	.091
High School/Neighborhood Diversity	.005	.009	.001
Diversity Course Enrollment	.001	.002	.084
Attitudes: Race/Ethnicity (T2)	.007	.013	.100
Table Lamberg (12)	.007	.015	.100
Diversity Courses	0.7.		
Cohort (0=1990-92; 1=2000-02)	091	045	.001
Gender (0=male; 1=female)	.007	.003	.073
White (SOC)	043	019	.001

Attitudes: Race/Ethnicity at entry	.008	.007	.001
Attitudes: Sexual Orientation at entry	.001	.001	.059
Want to meet diverse people	.017	.013	.001
Mother's Education	.008	.009	.000
Religiosity (Pre-College)	004	004	.072
High School/Neighborhood Diversity	.012	.011	.000
Mission to Address Diversity	.005	.004	.056
Attitudes: Race/Ethnicity (T2)	.001	.001	.055

Of particular interest in the current study, these results indicate a significant indirect effect of enrolling in a diversity course on changes in student attitudes regarding sexual orientation through changes student attitudes regarding race/ethnicity. Figure 5.1 presents a schematic of the standardized coefficients for selected, significant coefficients in the model for the total sample with one modification.

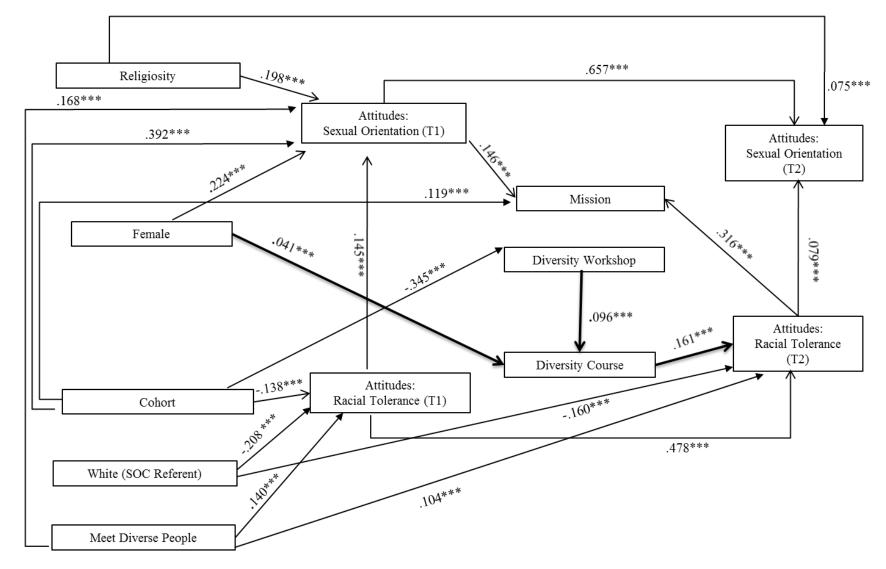


Figure 2: Model for Total Sample with Modification Across Time

Standardized coefficients. Insignificant paths are not shown in figure.

The revised model (inclusive of the one modification) accounts for 54% of the variance in Attitudes about Sexual Orientation (T2) and 41% of the variance in Attitudes about Race (T2). Enrolling in a diversity course had a highly positive path to Attitudes about Race (T2) and a significant path to Attitudes about Sexual Orientation (T2) through Attitudes about Race (T2).

Developing the Structural Models: Multiple Group Analyses

Structural equation models can be fit to two or more groups, at the same time and allowing for any degree of difference between groups (Klem, 2000). For the purposes of the multiple group analyses, covariance matrices were developed for both the Michigan Study and the Diverse Democracy study samples. The matrices for the multiple group analyses are presented in Appendix E and Appendix F. The invariance of multiple group models was assessed by the X^2 difference test. The multiple group analysis allowed invariance of regression weights across years to be examined. This method also allowed me to test the hypotheses regarding whether the model from an earlier decade could be replicated on the 2000 entering cohort.

As indicated in Tables 5.14 and 5.15, a comparison of alternate models was completed by calculating the X^2 difference statistic. Table 5.14 provides an analysis of the effects for the two cohorts, indicating both the direction of the relationship and significance.

Table 5.14: Multiple Group Analyses by Cohort

		v v	
	Michigan Study	Diverse Democracy Project	
	(Cohort 1990-1992)	(Cohort 2000-2002)	
Attitudes: Race/Ethnicity at entry			
Gender (0=male; 1=female)	-	+*	
White (SOC referent)	_***	_***	
Want to meet diverse people	+***	+***	
High School/Neighborhood Diversity	+***	+***	
Mother's Education	+***	+*	
SAT	+	+	

Attitudes: Sexual Orientation at entry		
Gender (0=male; 1=female)	+***	+***
White (SOC)	_***	+***
Want to meet diverse people	+***	+***
Mother's Education	-	+
SAT	+***	+*
Attitudes: Race/Ethnicity at entry	+***	+***
Religiosity (T1)	+***	+***
Tengrosity (11)	•	•
Mission to address diversity		
Attitudes: Race/Ethnicity at entry	+	
White (SOC)	_*	_
Attitudes: Sexual Orientation at entry	+***	+***
SAT	+	•
Attitudes: Race/Ethnicity (T2)	+***	+***
Turides. Race/Edimerty (12)	1	,
Attitudes: Race/Ethnicity (T2)		
Gender (0=male; 1=female)		+
White (SOC)	_***	_***
Want to meet diverse people		+***
Attitudes: Race/Ethnicity at entry	+***	+***
Diversity Course Enrollment	+***	+***
Diversity Workshops	+	+*
Diversity Workshops	I	ı
Attitudes: Sexual Orientation (T2)		
Want to meet diverse people	+	+**
Religiosity (Pre-College)	+	+***
Mission to Address Diversity	+*	+
Diversity Course Enrollment	+	+
Attitudes: Sexual Orientation at entry	+***	+***
Attitudes: Race/Ethnicity at entry	_**	+
Attitudes: Race/Ethnicity (T2)	+***	+
Attitudes. Race/Ethnicity (12)	Т	т
Diversity Workshops		
Attitudes: Race/Ethnicity at entry	_	+***
Religiosity (Pre-College)	-	Т
Mission to Address Diversity		-
Wission to Address Diversity	+	+
Diversity Courses		
Gender (0=male; 1=female)		+***
	1	
White (SOC) SAT	+	+ _***
	+	+**
Want to meet diverse people	. *	
Diversity Workshop	+*	+ +*
Attitudes: Race/Ethnicity at entry		+**

The X^2 difference statistic is used to compare nested models. Nested models are models that have the same variables, but differ because of the addition or elimination of one or more constraints. The X^2 difference is calculated by subtracting the X^2 fit statistic of one model from the same fit statistic in a second model. The value of the degrees of freedom is calculated by subtracting the

degrees of freedom in one model from the degrees of freedom in the other model. If the value of the X^2 difference statistic, along with associated degrees of freedom, is not significant, it is concluded that the two models have a similar fit, and the most parsimonious model is maintained.

Table 5.15: Multiple Group Analyses

	<i>X</i> ²	df	p	RMSEA	ΔX^2	Δdf	p
1. Model (Constrained)	332.423	100	< 0.0001	.039 (.034, .043)			
2. Model (Free)	234.363	60	< 0.0001	.043 (.038, .049)			
3. Difference					98.06	40	< 0.0001

In the multi-group structural equation model, when all regression weights were constrained to be equal, the X^2 was 332.423 (df = 100) and the RMSEA was .039 (.034, .043). When the regression weights were allowed to be free, the X^2 was 234.363 (df = 60) and the RMSEA was .043 (.038, .049). Allowing all weights to be free yielded a significantly better fitting model (ΔX^2 =98.06, Δdf =40, p = .0000). This suggests that precisely the same model cannot be used across the decades, confirming slight differences in earlier regression models for these cohorts.

Chapter 6 Discussion

Many students arriving on college campuses are intellectually ignorant and personally inexperienced in matters of intergroup relations, conflict management, and community-building. Without academic courses and safe, structured opportunities for intergroup dialogue, they will leave college unprepared to sustain a society that demands recognition of its diverse citizenry and full participation for all in its democratic structures. Experience has shown that when these learning opportunities are not available, students simply replicate in college and adult life the segregated and isolated experience of their childhood. (Schoem, 1997, p. 157)

Colleges and universities, including the University of Michigan, have shown a commitment and investment in diversity. While the nation, society, and institutions of higher education have continued to struggle with difference, campuses have responded with intentional diversity education initiatives, including a broad range of curricular modifications and additions. The college experience continues to have an opportunity to contribute to the development of student attitudes. With increased attention on campus diversity and the resulting interventions to address that diversity, the decade between 1990 and 2000 provides a rich context to examine campus diversity efforts. Campus interventions, especially focused on racial, gender, and cultural differences, increased in frequency during this time. Curricular and co-curricular learning experiences were developed to encourage changes in student attitudes and promote tolerance for diversity. Although there is a rich body of evidence linking campus diversity interventions with a broad range of critical student outcomes, on some campuses, diversity still translates as race. The trend nationally is moving toward recognizing a broader spectrum of different cultural, religious, racial, national, and economic identities found on any given campus.

This study responds to the need for a deeper understanding of the benefits of participating in diversity coursework and the specific relationship formal educational experiences have on the development of students' attitudes for our society's multiple diversities, in particular, on changes in student attitudes about race/ethnicity and about sexual orientation. In order to examine the direct and indirect ways in which the college experience can affect attitude development, specifically regarding race/ethnicity and sexual orientation, I examined survey results from two cohorts of students enrolled at the University of Michigan, one decade apart (1990-1992 and 2000-2002); this design provided a rich opportunity to explore a possible cohort effect. The goal of improved understanding of campus experiences connected to race/ethnicity informed the surveys for both The Undergraduate Experience at Michigan (The Michigan Student Study) and the Preparing College Students for a Diverse Democracy (The Diverse Democracy Project). Although changes in attitudes toward sexual orientation were secondary concerns of the surveys, these data nonetheless provided a rare opportunity to examine any changes in attitudes in these areas in relation to campus diversity efforts on a large-scale, longitudinal sample and in relation to one another across time in students attending the same institution. The similarities in survey construction across the two studies, coupled with the promising additional items unique to the 2000-2002 surveys, allowed for an analysis that spans a critical decade in diversity theory and application. Multiple analysis techniques were employed to examine a model of student attitude development. By examining two cohorts separated by a decade of campus progress on diversity interventions, as well the dual focus on developing attitudes about race/ethnicity and sexual orientation, this study makes a unique, and meaningful, contribution to the literature on the impact of campus diversity interventions.

The study employed two scaled indices of multiple items that appeared in both the firstand second-year surveys to measure students' attitudes regarding race/ethnicity and regarding
sexual orientation. The pre-test measures (responses at T1) and the end of second year measures
(responses at T2) were similarly constructed. The variables that compose the scale, Attitudes
about Sexual Orientation, represent students' agreement or disagreement with the following
statements:

- If I found out someone I knew was gay, lesbian, or bisexual, I'd be accepting and supportive.
- Romantic relationships between people of the same gender are as acceptable as they are for heterosexual couples.
- I would probably not be able to continue my friendship with a friend who I discovered was homosexual.

These survey items are attempting to measure students' acceptance of LGBT individuals and sexual orientation. The variables that compose the scale, Attitudes about Race/Ethnicity, represent students' agreement or disagreement with the following statements:

- Our society has done enough to promote the welfare of different racial/ethnic groups.
- A person's racial background in this society does not interfere with achieving everything
 he or she wants to achieve.
- The system prevents people of color from getting their fair share of good jobs and better pay.

These survey items measure students' understanding of how aspects of the social structure influence race/ethnicity.

Summary of the Study Findings

A central goal of this study was to understand if undergraduate courses, which include materials and discussions about diversity, among other campus influences, contribute to student attitudes about sexual orientation differently than they influence student attitudes about race/ethnicity, and what kind of differences surface when the two cohorts are analyzed. This study addressed the following key questions: 1) Among the University of Michigan entering classes of 1990 and 2000, what were the characteristics of students who enrolled in diversity courses in their first two years of college?; 2) What pre-college experiences and college experiences influenced student attitudes regarding race/ethnicity and attitudes regarding sexual orientation?; 3) Does enrolling in a diversity course have a different effect on the development of attitudes about race/ethnicity than the effect it has on attitudes about sexual orientation?; 4) How do student attitudes about race/ethnicity and experiences sexual orientation differ for the two cohorts of students (those completing their second year of college in 1992 and in 2002)?; and lastly, is the model developed for the 1990-1992 cohort replicable for the 2000-2002 cohort?

This final chapter summarizes the major findings of this study and considers these findings in terms of specific implications for institutional policy and practice. This discussion situates these findings within the specific institutional context, the University of Michigan, and suggests ways they can apply to other universities. The chapter concludes with recommendations for future research endeavors that build on the results of this study.

The following section provides a more detailed summary of the major findings from the study, organized by the five major hypotheses presented in Chapter 3.

Campus Diversity Interventions: Curricular and Extra-curricular

The study included the following two hypotheses regarding curricular and extracurricular diversity interventions:

- 1. Participation in coursework that addresses diversity will have a more positive influence on student change in attitudes about race/ethnicity than about attitudes about sexual orientation.
- 2. Participation in diversity workshops will have a more positive influence on student change in attitudes about race/ethnicity than about attitudes about sexual orientation by the end of the sophomore year.

The study findings supported previous research that curricular and co-curricular attention to diversity can contribute to developing positive norms of respect. Opportunities within and outside of the classroom have the potential to promote students' acceptance of sexual diversity by providing accurate information regarding sexual diversity and encouraging visibility of lesbian, gay, and bisexual people (Kardia, 1996; S. R. Rankin, 2010). The central hypotheses for this study were that enrolling in diversity courses and participation in diversity workshops would more positively influence attitudes about race/ethnicity than about sexual orientation by the end of the sophomore year, and the analyses support that hypothesis. Enrollment in diversity courses (hypothesis 1) and participation in diversity workshops (hypothesis 2) were not directly related to changes in attitudes about sexual orientation. Conversely, enrollment in diversity courses and participation in diversity workshops were significant predictors for attitudes about race/ethnicity. The SEM analysis yielded somewhat different findings. While enrolling in a diversity course continued to have a significant direct effect on attitudes about race/ethnicity, participating in a diversity workshop did not. One possible explanation is that the structured, formal intervention over the arc of a semester may be producing a stronger effect. Future research could benefit from examining enrollment for diversity courses (and to a lesser degree, workshops) taking into

results also showed that enrolling in a diversity course did not have a significant direct effect on attitudes about sexual orientation, but the course experience appears to work indirectly through the formation of racial attitudes during college. One possible explanation for this finding may be how the measure of race/ethnicity is defined in this study. The race/ethnicity measure is built from items examining student attitudes about systemic race issues, which may promote thinking about systemic social oppression, and thus might influence students' openness to sexual orientation as well. This finding confirms previous research showing that diversity interventions can produce a positive influence on the development of multiple forms of acceptance (e.g., Engberg, 2004; Palmer, 2000). Most significantly, attitudes regarding these two different areas of diversity are strongly correlated when students enter college, and remain correlated by the end of the second year.

This study also finds that significant levels of attitude change are influenced by attention to diversity in the curriculum in addition to student desire to interact with diverse peers. While the literature continues to document steady progress toward the prevalence of campuses deciding to mandate diversity courses among undergraduate requirements, this study illustrates that campus diversity efforts can be more broadly effective when they recognize multiple forms of difference and can provide opportunities for students to connect across that difference.

The study is thus an important first step in understanding how to provide opportunities for students to develop positive attitudes about racial diversity and sexual orientation during the college years. By disentangling racial diversity and sexual orientation, higher education can focus on improving curricular attention to where and how to bring sexual orientation into the discussion. While it has been asserted that if we are teaching about diversity, writ large, that

tolerance and more respectful norms will follow, this study addresses the implicit over-reach in that assertion. Researchers should consider that "the conflation of homophobia with racism clearly depends on the similar strategies of objectification at work in each of those impulses…but that conflation … may also allow one of those impulses to operate under cover of the other or to legitimize the other" (Chadwick, 1992, p. 144). This study aimed to examine the degree to which that is true, and where it is not, to better understand where we can intercede.

Student Attitudes about Race/Ethnicity and about Sexual Orientation

The study included the following hypotheses regarding curricular and extra-curricular diversity interventions:

3. Students' personal attitudes about race/ethnicity and attitudes about sexual orientation will show a greater change from the time of college entry to the end of the sophomore year for the 2000-2002 cohort (Diverse Democracy Project) than the 1990-1992 cohort (Michigan Study).

The current study confirmed previous findings that women are more likely than men to enter college more tolerant of difference and to show more positive attitudes about sexual orientation during the college experience (e.g., Kardia, 1996). Race was a consistently significant predictor of change in attitudes about race/ethnicity but did not yield the same results for change in attitudes about sexual orientation. Of particular interest in this study was the degree to which two cohorts of students, separated by a decade, responded to questions about their attitudes, specifically, how do attitudes about sexual orientation and race differ for students completing their second year of college in 1992 from those completing their second year in 2002. This study identified these two cohorts because they represent critical time points in campus development of diversity interventions, across the nation and specifically at the University of Michigan. Based

upon developments in diversity efforts across this time period, hypothesis 3 asserted that students' personal attitudes about race/ethnicity and about sexual orientation would show a greater change from the time of college entry to the end of the sophomore year for the 2000-2002 cohort than the 1990-1992 cohort. Initial results indicated that cohort was significantly related to changes in attitudes about sexual orientation but was not for attitudes about race/ethnicity. The SEM results allowed a deeper analysis of these cohort differences across a decade. The cohort measure was highly significant and negative for attitudes about race/ethnicity at entry but not significant for attitudes about race/ethnicity during college. The earlier cohort had a more open attitude about race/ethnicity, and conversely the later cohort had a less open attitude about race/ethnicity. A similar examination of attitudes about sexual orientation did not yield the same results. The cohort measure was highly significant and positive for attitudes about sexual orientation at entry but not significant at the end of the sophomore year. Of the multiple time points being considered in this study and the dual attitude measures, the findings suggest that the cohort measures for attitudes about race/ethnicity and about sexual orientation during college were not significant. Between 1990 and 2000, campus diversity efforts had developed and benefited from the decade of attention and improvement, especially in addressing issues of race/ethnicity. Both campus engagement and national conversations about sexual orientation had increased in this same period. These results open important new directions for deeper analysis, specifically to more fully understand differences both in campus diversity efforts within the curriculum and campus attention to issues of race and other forms of diversity, such as sexual orientation.

The SEM analyses showed that student attitudes regarding sexual orientation at entry had a significant positive influence on agreeing with the statement that universities are fulfilling the

real purpose of higher education by including a multicultural perspective in the curriculum. Interestingly, student attitudes regarding race/ethnicity at entry did not have a significant influence on this measure of campus mission, but the second year measure was highly positive. These findings lead to important considerations for higher education administrators. Students developing more positive attitude changes during their first two years of college can influence their beliefs that higher education has a key responsibility in addressing diversity. How a campus understands its role and how that commitment is made visible to students can have an influence on the impact of campus diversity interventions.

The Importance of Diverse Peer Interactions

The study included the following hypothesis regarding diverse peer interactions:

4. Students' desire at the time of college entry to meet diverse individuals will be more positively related to their attitudes about race than to their attitudes about sexual orientation by the end of the sophomore year.

Researchers have argued that students' openness to diversity is one of the critical factors necessary for cross-racial interactions to occur (Chang, Astin, & Kim, 2004; Gurin, 1999a; Gurin et al., 2002). Studies have consistently found a strong relationship between interacting with people from different backgrounds and positive outcomes during the college experience. This study included a pre-test measure to examine students' desire at the time of college entry to meet diverse individuals. The results supported the hypothesis that this desire to meet diverse peers would be more positively related to their attitudes about race than to their attitudes about sexual orientation by the end of the sophomore year. The Diverse Democracy Project allowed for an analysis about interacting with LGB individuals. While pre-college interactions with LGB individuals were not significantly related to either the race/ethnicity or sexual orientation attitude

measures, contact experiences during college were highly positive and significant for changes in attitudes regarding sexual orientation. These results highlight the benefit of more purposeful interactions for students during these critical college years.

We know from the literature that intergroup contact has been shown to reduce prejudice (Dovidio et al., 2002; Pettigrew & Tropp, 2006; Pittinsky, 2007; Shelton, 2005; Tropp, Pettigrew, 2005). The current study included an examination of student desire at college entry to meet diverse people during college. Wanting to meet diverse people during college was found to have a significant influence on both student attitudes about race/ethnicity and attitudes about sexual orientation. This measure was not significant in the second-year sexual orientation analyses, but was highly significant in the race/ethnicity analyses at both time points. In addition to the measure of pre-college intention to interact with different people, several interaction measures unique to the Diverse Democracy study were included. The study found that during college interaction with individuals who identify as gay was significantly related to changes in student attitude toward sexual orientation among peers. Similar interaction before college was unrelated. Interacting with individuals who identify as LGB was not a significant measure for changes in student attitude toward race/ethnicity, however.

Religiosity

The final hypothesis included in the study concerned the role of religiosity:

5. Religiosity will negatively influence attitudes about sexual orientation at college entry. It will not have the same negative influence on attitudes about race/ethnicity.

Because of the interest in understanding change in student attitudes about sexual orientation, religiosity was included in the analyses as a variable of interest. The findings supported the hypothesis that religiosity would negatively influence changes in attitudes about sexual

orientation but not attitudes about race/ethnicity. Responses indicated that students arrived at the University having participated less frequently in religious activities in 2000 than their counterparts had in 1990.

Although religiosity at both time points had a significant effect on attitudes about sexual orientation, it was not a significant predictor at either time point for student attitudes about race/ethnicity. It will be useful for higher education administrators to recognize the effect of precollege religiosity on developing student attitudes during the college years. Because students are likely to satisfy campus diversity course requirements within the first two years, attention must be given to the struggle some students may experience as they reconcile family value structures with their own developing independent values.

Implications and Future Directions for Research

Many U.S. colleges and universities are actively promoting racial/ethnic diversity through policy, curriculum, practice, and hiring. The University of Michigan has explicitly advanced the cause of racial/ethnic diversity, both in terms of public recognition and its actions. It is important to note that the current study was designed to examine the first two years of the college experience. Student development occurs over the full arc of the higher education experience, and as such the data suggest that further examination should be given to the end of the college experience. Given the current study's interest in change on attitude measures of sexual orientation, it is possible that the additional two years could be productive ones to analyze. In a study of University of Michigan students, Taylor (1990) found that upper-division students scored higher on measures of tolerance than first or second year students. Future studies should examine senior year results to determine subsequent changes in attitude measures after students have experienced more time at the university. In a related way, there is a clear benefit in

understanding how seeds that are planted early in the college years can yield important changes in attitudes over time. While the data used in the current study do not allow for an examination of an enduring nature of the changes over time, this is a potentially valuable direction for future studies.

Relatedly, this study examined the impact of enrollment in diversity courses within the first two years of college on students' attitude development. It also examined the impact of interacting with diverse peers (and in the case of the later cohort, LGB peers). It is important for students to experience issues of diversity throughout their university coursework, allowing the conversation to be reinforced and made relevant across their studies. Future studies would benefit from a broader examination of the capacity for and effect of diversity being infused throughout a student's education. Regardless of their future careers, our graduates will encounter issues of diversity, and higher education has a responsibility to prepare them to thrive in a diverse working and living environment after college. The importance of university attention to diversity within the curriculum extends beyond the specific knowledge gained in courses. These courses have the potential to equip students with the necessary skills that enable them to discuss race, ethnicity, and sexual orientation with people different from themselves. Careful discussion should prevent students from falsely thinking that they have "experienced diversity because they fulfilled the diversity course requirement" when as Umali points out it is easy to fulfill a course requirement without truly learning anything about why diversity is important (Umali, 2004). Students can become better able to understand themselves and members of their community by learning to understand the perspective and experiences of people who are different from them. When faculty are able to draw upon a wide range of perspectives of different communities and bring this broader sense of diversity into the classroom, students and faculty both benefit.

Boyer (1987) stated:

The aim of the undergraduate experience is not only to prepare the young for productive careers, but also to enable them to live lives of dignity and purpose; not only to generate new knowledge, but to channel that knowledge to humane ends; not merely to study government, but to help shape a citizenry that can promote the public good (Boyer, 1987, p. 297).

Higher education faculty, administrators, students, and the nation's citizens increasingly realize that a high quality education should include learning about diversity. The educational benefits of diversity can result from a combination of opportunities to experience a diverse curriculum taught by a diverse faculty, along with chances to interact inside and outside of classrooms with people who are different than one another (Hurtado, 2001).

Perhaps more now than at any other time in history, colleges and universities need to nurture the curiosity of their students and support the environments in which these conversations occur. In an earlier examination of the nation's increasing responsibility to address diversity, the Association of American Colleges and Universities stated that today's college students need to work within and understand a country that is both diverse and divided. To do this, they must learn to understand and respect peoples and ways of life that have been outside of their experience (Association of American Colleges and Universities, 1995). Campuses need to create safe environments for interaction and for learning across this difference.

Future research should work to define diversity broadly enough to recognize the salient differences represented on our campuses while simultaneously attending to concerns about diversity becoming too diffused. This study underscores the need for researchers and administrators to make careful and conscious decisions about what is included in research

designs as well as institutional task forces, curricular interventions, and policy statements. This study reinforces the value in considering what is meant by diversity. There is much value in helping students understand that individuals may experience multiple forms of oppression. As campuses strive to engage students, they can be helped by understanding the range of student attitudes. Research has been focusing more on student intersectionality, including how to address the multiplicity of identities and how these will inform the campus experience.

This study contributes the growing body of literature examining the positive benefits in formal and informal student engagement with diversity over a decade of increasing investment in and focus on diversity. The first cohort (1990-92) is drawn from a time that has been described as embodying a curricular renaissance in U.S. higher education (Schmitz, 1992) coupled with the University of Michigan's early and steadfast commitment to diversity. This generation of college students is surrounded by a pop culture explosion of media offerings of gay lifestyle and relationships while states and the federal government battle over the rights of marriage and the definition of a family. This confluence of events is taking place while campuses continue to struggle with harassment and violence directed at racial and sexual orientation minority students.

The turn of the millennium was met with an unfettered hatred—surfacing at the polls, in policy, and in word and deed as well as a silent distrust and hatred of difference. These are as critically important in the current environment – where we are confronted with the very real juxtaposition of significant social progress co-existing alongside heinous acts of violence. Major events such as the election of President Obama and the Supreme Court ruling on marriage equality draw descriptions in the media of a post-racial and a post-gay society (Nteta & Greenlee, 2013; Tesler & Sears, 2010). As we know, institutions of higher education are part of, not immune to, this social dialogue. As goes society, so go our campuses. Efforts have been

made to measure the impact on race/ethnicity—both inside and outside of the classroom. Measuring progress on LGBT attitudes has not completely made the radar of many campus administrators. Given increasingly challenged budgets, it is likely to become more important for administrators to be prepared to argue that efforts to address diversity are not a zero-sum endeavor. Higher education institutions will need to make diversity efforts inclusive of the multiple identities present on our campuses and flexible enough to adapt to newly emerging identities.

Appendices

Appendix A: Survey Instruments

THE UNDERGRADUATE EXPERIENCE AT MICHIGAN: OPINIONS AND EXPECTATIONS OF ENTERING STUDENTS

THE UNDERGRADUATE EXPERIENCE AT MICHIGAN: OPINIONS AND EXPECTATIONS OF SECOND YEAR STUDENTS

PREPARING COLLEGE STUDENTS FOR A DIVERSE DEMOCRACY: FIRST YEAR STUDENT VIEWS AND EXPERIENCES

PREPARING COLLEGE STUDENTS FOR A DIVERSE DEMOCRACY: SECOND-YEAR SURVEY OF STUDENT VIEWS AND EXPERIENCES

THE UNDERGRADUATE EXPERIENCE AT MICHIGAN

OPINIONS AND EXPECTATIONS OF ENTERING STUDENTS

University of Michigan Ann Arbor, Michigan 48109

the of t	circle he w ou cl	General Instructions upply the information in the space provided or mark e corresponding to your chosen response. Example ay to mark circles: hange your mind or mark the wrong space, cross it and fill in the space you wish.	10.	perr ① ② ③ ④	w many miles is the University of Michigan from your manent home? 10 miles or less 11-50 miles 51-100 miles 101-500 miles More than 500 miles
			11.		at school are you attending?
Pa	rt I	I. Student Information			Literature, Science & Arts (LS&A) Engineering
1.	You	ır Gender: ① Male ② Female			Music Other (specify)
2.	Dat	e of Birth: Month Day Year	12.	. Are	you a student in:
		izenship Status: ① U.S. ② Other ar Racial/Ethnic Identification (please check all that lly): African American/Black Black Other (specify national origin)		3	Inteflex Residential College Honors College Pilot Program College Community Program (CCP) None of these
			13.	. Wh	at is your residence hall?
	2	Asian American/Asian (specify national origin)	14.	. In w	hat religion were you raised?
	3	Hispanic/Latino (specify national origin)		2 3	Protestant (specify denomination)Roman Catholic Jewish
	4	Native American/American Indian (specify tribal affiliation)		(5)	Greek Orthodox Moslem Hindu
	•	White/Caucasian (Non-Hispanic) (specify ethnicity/ national origin)			Buddhist Other (specify denomination) None
	•	Other (specify)	15.		at is your present religious preference?
5.	Ma	rital Status:			Protestant (specify denomination)
		Single © Separated/Divorced Married © Widowed		3	Roman Catholic Jewish Greek Orthodox
6.	Do	you have children?			Moslem Hindu
	① Y	Yes (specify number) ② No		Ø	Buddhist
7.	Ho	w many brothers and sisters do you have? (if none, write "0")		9	None
	Old	Younger:	16		w religious are you?
8.	Are	e you presently enrolled as an:		2	Very religious Religious
		In-state student			Somewhat religious Not at all religious
			1		

17. What is your father's/guardian's occupation?

18. What is your mother's/guardian's occupation?

State

9. Where is your permanent home?

Town or City

 Please circle the number corresponding to the highest level of education completed by each of the following members of your family (answer A, B and C).

	Α.	B.	C.
Years of School Completed	Father or Guardian	Mother or Guardian	Brother or Sister with Most Years of Schooling
Not applicable	0	0	0
1 - 8 Years	1	1	1
9 - 11 Years	2	2	2
High School Graduate	3	3	3
Some College	4	4	4
B.A., B.S. Degree	5	5	5
MSW, MBA, M.A. or other Master's Degree	6	6	6
J.D., M.D., Ph.D., D.D.S. or other Doctoral Degree	7	7	7
Not Sure	8	8	8

20. We are interested in the social network you had before coming to the University of Michigan. First, you should think of your six closest friends. We do <u>not</u> want you to give us their names, so only put the initials of each friend in the column labeled "Person." For each friend you should indicate (A) His or her gender; (B) Race or ethnicity; (C) Religion; (D) Whether or not he or she is attending the University of Michigan; (E) Whether the friend comes from a similar or different family income/social class background; and (F) Whether the friend's educational goals are similar or different from your own (i.e., whether your friend plans to attend a college as selective as the University of Michigan).

		A	В	С	D	E	F
	PERSON'S INITIALS	GENDER	RACE/ETHNICITY	RELIGION	ATTENDING U-M	FAMILY INCOME/ SOCIAL CLASS	EDUCATIONAL GOALS
		Male —— Female——			No— Yes—	Different from mine-	Different from mine—Same as mine—
1		1 2			1 2	① ②	0 2
2		1 2			1 2	0 2	0 2
3		1 2			1 2	0 2	① ②
4		1 2			00	0 2	0 2
5		1 2			02	0 2	1 2
6		0 2			02	① ②	0 2

- 21. Have you ever spent any time outside the United States and Canada:
 - A. Mainly as a tourist
 - ① Yes
 - 2 No
 - B. On some type of exchange program
 - ① Yes
- 2 No.
- C. As a resident of another country
 - ① Yes
- 2 No.

Part II. Financial Aid

22. How do you plan to pay for the living, tuition and other expenses you will have this year? For each source listed below, indicate how much money you expect to receive during the period beginning June 1990 and ending May 1991. If you are not sure, make your best guess. (Mark one for each line)



- A. My family:
 - a. Parents/guardians
- 0234567 0234567

10 20 30 40 50 60 70

1234567

0234567

1234567

0234567

0234567

1234567

- B. Myself:
 - a. Summer earnings, 1990

b. Spouse or other relatives

- Earnings, Sept. 1990-
- c. Savings

May 1991

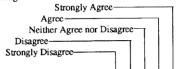
- 0234567
- C. Other sources:
 - a. State or federal scholarship or grant
 - Other scholarship or grant
 - State or federal loan
 - Other loan
 - Social Security or Veterans Administration benefits

amount of financial aid you are receiving this year from private, university, state or federal sources? **\$5000-\$6999** ① None

23. Except for support from your family, what is the total

- 2 Less than \$1000
- **6** \$7000-\$8999 **②** \$9000-\$11000
- 3 \$1000-\$2999
- ® Over \$11000
- 24. Approximately how many hours per week do you anticipate working in paid employment during this academic year?
 - None
 - 10 or less hours a week
 - 3
 - 11-20 hours a week More than 20 hours a week
- 25. Do you have any concern about your ability to finance your college education?
 - None (I am confident that I will have sufficient funds)
 - Some concern (but I will probably have enough funds)
 - Major concern (not sure I will be able to complete college)
- 26. Do you have any concern about the amount of debt you will incur for your college education?

 - Some concern
 - (3) Major concern
- 27. There has been much discussion of who should receive financial aid for education after high school. Please indicate to what extent you agree or disagree with each of the following.



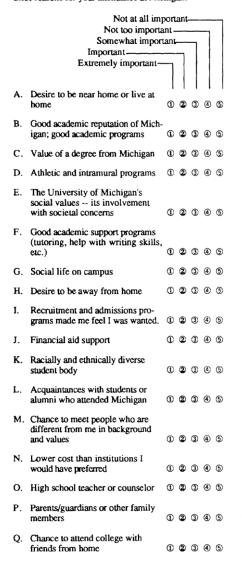
- Financial aid should only be given to students whose parents cannot afford to pay for schooling. 0 2 3 4 5
- B. High-achieving students should receive financial aid for schooling even if their parents can afford to 1 2 3 4 5 pay for it.
- C. All high school graduates who want it should receive financial aid for at least two years' education after high school.
- 1 2 3 4 5

Part III. Academic Background and Plans

		36. What is your major or expected major in college?
28.	From what type of high school or secondary school did you graduate?	
	 Public high school Private Catholic high school Other private religious high school Other private non-religious high school 	36a. How certain are you that this will be your major at the time you graduate? ① Extremely certain
29.	Was your high school: ① Single gender ② Coed	Quite certain Somewhat certain Not at all certain
20	Single gender	37. What is the highest academic degree you plan to obtain?
50.	① A+ or A	 Some college B.A. or B.S. degree M.A. or M.S. degree M.S.W., M.B.A., or other professional masters degree M.D., D.D.S. or J.D. degree Ph.D. or other doctoral degree Other (specify)
	① Upper 20% ① My high school ② Upper 30% doesn't rank.	38. How certain are you that you will get your undergraduate bachelor's degree?
	What were your scores on the SAT and/or ACT? A. SAT Verbal: B. SAT Math: C. ACT Composite: What was the average number of hours each week you	Completely certain I will get my degree from Michigan Completely certain I will get my degree, but not necessarily from Michigan Fairly certain I will get my degree Not at all certain I will get my degree
J.	spent on homework in your senior year of high school? Hours per week	39. If you plan to go on to a graduate or professional degree, what will most probably be your program of study (e.g., social work, education, English, law, etc.)?
33.	Which of the following did you take in high school? (Check all that apply.)	
	 Trigonometry Calculus Physics Chemistry Biology 	40. Do you have a specific career goal in mind? ① Yes ② A general area ③ No (go to q 41) 40a. Please specify:
34.	Have you been involved in any pre-college programs that helped prepare you for college (i.e., summer bridge programs, Upward Bound, pre-engineering programs, etc.)?	40b. Is there any person who has been important in your developing this career interest? ① Yes ② No (go to q 4!)
	Yes (specify program(s)) No	40c. If yes, who is this person? (State relationship, e.g., "mother", "high school teacher", etc.)
35.	How well do you feel your high school prepared you academically for your first year at Michigan?	
	① Extremely well ② Fairly well ③ Somewhat ④ Not too well ⑤ Not at all	

Part IV. Your Expectations of Michigan

41. Following is a list of reasons why some people decide to attend a particular college. How important was each of these reasons for your attendance at Michigan?



42. As you think ahead to your possible experiences at Michigan, how important is each of the following to you personally? (Many of the experiences are important, but use the categories "Very Important" and "Of Crucial Importance" only for those that are <u>particularly important</u> to you.)

70.7	ou.)					
	Not at all it	npo	orta	int		٦
	Not too impor	tar	ıŧ-	_	٦	
	Fairly important-			\neg	1	1
	Very important—		_	1		
	Of crucial importance	_		1	1	
		1	1		1	
			1		1	1
		ł	ì	ì	İ	l
Α.	Dating and having an active social	•	•	3	•	@
	life	w	2	(3)	•	(3)
В.	Gaining a broad education and appre-					
	ciation of ideas	1	2	3	4	(5)
C.	Becoming involved in fraternities and					
	sororities	1	2	3	4	(5)
D.	Getting to know faculty, seeing and					
υ.	talking with them outside of class	1	2	3	(4)	(5)
г	· ·	_	_	_	-	_
Ε.	Participating in intercollegiate or intramural athletics	1	(a)	3	Ø	(E)
			•	(9)	•	w
F.	Discussing ideas, intellectual exchange				_	_
	with friends and other students	w	(2)	3	4)	(5)
G.	Being active in groups and activities					
	reflecting my own cultural-ethnic back	-				
	ground (such as the Black Student					
	Union, Asian Student Coalition,	(1)	@	3	A	@
	Hillel, etc.)	U	•	(J)	•	9
Н.	Being active in campus groups con-					
	cerned with national and international	•			•	_
	issues	O	(2)	3	(4)	9
I.	Finding people on campus who share	_	_	_		
	my background and experiences	Œ	2	3	4	3
J.	Being active in student government					
	organizations	1	2	3	4	(5)
K.	Being a top student academically at					
	Michigan	1	2	3	4	(5)
L.						
L.	Gaining knowledge and skills for a career	(T)	②	3	(A)	6
		•	•	•	0	٠
Μ.	Getting to know people from back-	•		•	•	
	grounds different from my own	Œ)	2	3	4)	(5)
N.	Self-discovery, self-insight learning	_	_	_		
	more about myself	①	2	3	4	(3)
O.	Doing volunteer work for campus or					
	community groups or agencies	1	2	3	4	(5)
P.	Learning about cultures different from					
	my own	1	2	3	4	(5)
Q.	Learning about the world and gaining					
٧.	the knowledge and skills to make the					

1 2 3 4 5

world a better place

43.		luding Michigan, to how many instituti	ons did y	ou	Part	٧.	Student	Diversity	
	wei	luding Michigan, to how many of these eyou admitted?		ons	studen United Ameri	ts and States cans, A	people of colors, refers partic	questions on diversity or. This term, as used ularly to people who a ans, Hispanics/Latinos ns.	in the re African
	1	1st choice			1				
	2				vi co	ews at	out racial and and universit	te statements represent ethnic diversity in Unics. Please indicate the gagree with each.	ited States
46.	hav	e list below identifies difficulties that so e at college. How difficult do you antic following will be for you?						Strongly Disa Disagree ———————————————————————————————————	
		Not at all d Not too diffi			}			Strongly Agree	7
		Somewhat diffi Difficult Very difficult			A	enre	ollment of stud	greatly increased dents of color will lence of universities.	1 1 1 1
	A.	Deciding on a major	1 2 3	4 5	В.	inju not		and universities do y responsibility	(1) (2) (3) (4)
	В.	communityfeeling as though I belong here	① ② ③	4 5	C	. Diff	ferent admission ect to SAT and sustified for so	ons criteria with ad ACT scores may me students of	0234
		Becoming friends with students whose views and beliefs are different from my own	023	49	D.	. Stud	dents of color discriminate	are given advantages against other students	
	D.	Developing a trusting romantic relationship	1 2 3	4 5	F		olleges and univ	rersities.	1 2 3 4
	E.	Becoming a part of the general campus life as far as student activi- ties and government are concerned	1 2 3	4 5		a re take	quirement for	graduation that student ourse covering the	ts ①②③④
	F.		0 2 3		F.	that	students of co	nould be given to see olor receive financial after high school.	1 2 3 4
		Feeling comfortable with students whose racial/ethnic backgrounds are different from my own	① ② ③	4 5	G.	prov tion	vide resources al, cultural, ar	versities should <u>not</u> to support educa- nd social activities roups of color.	① ② ③ ④
	H.	Feeling on top of the academics confident I can do the work required	1 2 3	4 5	Н.	. The		re faculty of color	1236
47.		you feel that you may need special tuto in the following subject areas while in			I.		•	n for people of color,	~ ~ ~ ~
	-	English/Reading/Writing ① Yes		No	}	desp	pite its underly	ring concern for ed reduce the academic	
		Mathematics/Science ① Yes		No	1			ges and universities.	1 2 3 4

2 No

① Yes

B. Mathematics/Science

49. Many of us have stereotypes about people who differ from us in race, ethnicity, religion, gender, or sexual orientation (groups such as "WASPS," "Gays," "Hispanics," "Catholics," etc.). Have you ever had an experience -whether it was through television, a classroom incident, a personal experience, or books you've read, that caused you to rethink your ideas about a particular group of people?

2 No (go to q 50)

What was the actual experience? Describe your original beliefs and what happened to make you rethink those beliefs.

What was the outcome? What happened to your beliefs as a result of this experience?

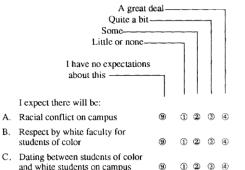
50. Have you ever personally experienced hostility or discrimination because of your religion, racial or ethnic background, sexual orientation or any other form of prejudice?

① Yes

2 No (go to q 51)

50a. Please give one or two examples of what you have experienced and how those experiences made you feel.

51. Institutions vary in racial "climate" on campus -- in patterns of relations between people of color and white people. How much do you expect the following will be present at the University of Michigan?



① ② ③ ④

① ② ③ ④

0 2 3 4

1 2 3 4

Friendship between students of color and white students

halls

F. University commitment to admit more students of color and develop an environment that is conducive to their success

Interracial tension in the residence

Trust and respect between students in different groups of color (e.g., African Americans and Latinos, Asian Americans and African Americans, etc.)

- 52. Compared to the racial climate at other predominantly white universities, how friendly do you anticipate the racial climate will be at the University of Michigan?
 - Much friendlier than most universities
 - Somewhat friendlier than most universities
 - About the same as most universities
 - Somewhat more hostile than most universities Much more hostile than most universities
- 53. How do you think your opinions on issues of race relations will compare with the opinions of most of the students at

The opinions on race relations of most Michigan students will probably be:

- Much more liberal than mine
- Somewhat more liberal than mine
- About the same as mine

the University of Michigan?

- Somewhat more conservative than mine
- Much more conservative than mine

54. The following questions are about the group you checked as your racial/ethnic identification in Ouestion 4 (refer to page 1.) Write this identification group on the line below, to make sure we understand the group you are referring to in the following questions. (If you checked more than one identification in Question 4, write in the one you most identify with.)

YOUR IDENTIFICATION GROUP

54a. People differ in how frequently they think about being (YOUR GROUP) and what they have in common

with people in your group. How often do you think about it?

- A lot
- 2 Fairly often
- 3 Once in a while
- Hardly ever
- 54b. Do you think what happens generally in this country to people in your group will have something to do with what happens in your life?
 - Yes, a lot
 - Yes, some
 - Yes, a little
 - No
- 54c. People often feel that some groups in our society share many common political and economic interests, while other groups have few common interests or are even competing politically and economically. For each of the groups listed below, please indicate how much their interests and your group's interests are similar or different.

Much more different than similar-Somewhat more different-Somewhat more similar Much more similar than different Not applicable-This is my group

The interests of my group and those of:

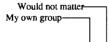
A. Black/African Americans 9 (1) (2) (3) (4) B. Asian Americans 1 2 3 4 1 2 3 4 C. Hispanics/Latinos D. Native Americans 1 2 3 4 9 0234 E. White Americans

54d. How about important values in life -- like values about work and family. How similar or different are your group's values and those of the following groups?

Much more different than similar-Somewhat more different-Somewhat more similar Much more similar than different Not applicable-This is my group

The values of my group and those of:

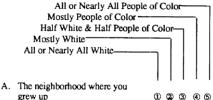
- 1 2 3 4 A. Black/African Americans Asian Americans 1 2 3 4 Hispanics/Latinos 1 2 3 4 D. Native Americans 1 2 3 4 E. White Americans 1 2 3 4
- 54e. Please indicate your preference in each of the following situations.



① ②

1 2

- A. When you study for an exam, would you prefer to study with students of your own group, or wouldn't that matter?
- B. If you were seeking advice about your academic career, would you prefer to consult with a counselor or faculty member of your own group, or wouldn't that matter?
- C. Are you more comfortable at parties with your own group than at interracial and inter-ethnic parties, or doesn't that matter?
- 55. How would you describe the racial composition of the following:



- grew up
- Your place of worship
- C. The high school you attended
- Your family's current neighborhood

1 2 3 4 5

Part VI. Personal and Political Attitudes

56. The following statements inquire about your thoughts and feelings in a variety of situations. For each item, indicate how well it describes you. Be sure to read each item carefully before responding and answer as honestly as you can.

Very much like me—
Quite a bit like me—
Somewhat like me—
A little bit like me—
Not at all like me—

1) 2) 3) 4) 5

0 2 3 4 5

0 2 3 4 5

0 2 3 4 5

10 20 30 40 50

1 2 3 4 5

1 2 3 4 5

0 2 3 4 5

10 20 30 40 50

(1) (2) (3) (4) (5)

1 2 3 4 5

02345

- I really enjoy analyzing the reasons or causes for people's behavior.
- I sometimes find it difficult to see things from the "other person's" point of view.
- C. I think a lot about the influence that society has on other people.
- I try to look at everybody's side of a disagreement before I make a decision.
- E. If I am sure I'm right about something, I don't waste much time listening to other people's arguments.
- F. I don't enjoy getting into discussions where the causes for people's behavior are being talked over.
- G. I believe that there are two sides to every question and try to look at them both.
- H. I think a great deal about the questions "Who am I? What do I want? What will I become?"
- When I analyze a person's behavior I often find the causes form a chain that goes back in time.
- I prefer simple rather than complex explanations for people's behavior.
- K. I am a person who prefers the familiar and predictable more than experiences that are new and different.
- I think a lot about the influence that society has on my behavior and personality.
- M. I tend to take people's behavior at face value and not worry about the inner causes for their behavior.
- N. I have learned from my contact with lots of people that no one group has "the truth" or knows "the right way to live."

Very much like me

Quite a bit like me

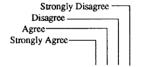
Somewhat like me

A little bit like me

Not at all like me

- O. I do not enjoy thinking about the causes of social problems in our society. ① ② ③ ④ ⑤
- P. I am a person who is eager to try new experiences. ① ② ③ ④ ⑤
- Q. I don't think a lot about the kind of person I am or want to be -- I take myself pretty much for granted.

 ① ② ③ ④ ⑤
- R. I try hard to reach a well thought-out opinion about most political issues that come up. ① ② ③ ⑥ ⑤
- ① ② ③ ④ ⑤ 57. In each of the following questions, mark whether ① or ② better describes the way you feel about things in general.
 - A. ① When I make plans ahead, I usually get to carry out things the way I expected.
 - ② Things usually come up to make me change my plans.
 - B. ① I've usually felt pretty sure my life would work out the way I want it to.
 - There have been times when I haven't been sure about it.
 - C. ① I feel I can run my life pretty much the way I want to. or
 - ② I feel the problems of life are sometimes too big for me.
- ③ ③ ④ ⑤
 58. The statements below describe different ways people think about themselves. Please indicate how much you agree or disagree with each statement.



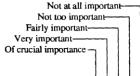
① ② ③ ④

- A. I take a positive attitude toward myself. ① ② ③ ④
- B. At times I think I am no good at all. ① ② ③ ④
- I wish I could have more respect for myself.
- D. I feel that I have a number of good qualities. ① ② ③ ④
- qualities. ① ② ③ ④

 E. I feel I do not have much to be proud of. ① ② ③ ④
- F. I am able to do things as well as most
- other people. ① ② ③ ④

9

59. How important is each of the following to you in your life after college?



		-				
A.	Being an expert in my field	1	2	3	4	(5)
В.	Having a happy family life	1	2	3	4	(5)
C.	Being very well off financially	1	2	3	4	(5)
D.	Having strong friendships	1	2	3	4	(5)
E.	Influencing the political structure	1	2	3	4	(5)
F.	Being able to find steady work	1	2	3	4	(5)
G.	Living close to parents and relatives	1	2	3	4	(5)
Н.	Being successful in the eyes of others	1	2	3	4	(5)
I.	Working to correct social and economic inequalities	1	2	3	4	(5)
J.	Raising children	1	2	3	4	(5)
K.	Having leisure time to enjoy my own interests	1	2	3	4	(5)
L.	Helping my group or community	1	2	3	4	(5)
Μ.	Enjoying the work I do	1	2	3	4	(5)
N.	Being a religious person	1	2	3	4	(5)
О.	Helping to promote racial/ethnic understanding	1	2	3	4	(5)

- 60. Below you will find a seven-point scale on which the political views that people might hold are arranged from extremely liberal to extremely conservative. Please indicate where you would place yourself on this scale or haven't you thought much about this?
 - ① Extremely liberal
 - 2 Liberal
 - 3 Slightly liberal
 - Moderate, middle of the road
 - Slightly conservative
 - © Conservative
 - ② Extremely conservative
 - Haven't thought much about it

61. The following series of questions includes statements representing varying points of view on a number of legal, social, and political topics. Please indicate the extent to which you agree or disagree with each.

Strongly Disagree	
Disagree	~
Agree	
Strongly Agree	1
1 1	1

SOME GENERAL LEGAL. POLITICAL, AND SOCIAL ISSUES

- A. There is too much concern in the courts for the rights of criminals.
 D. Marijuana should be legalized.
 D. 2 3 4
- C. Everyone should be given an opportunity to go to college regardless of past performance and aptitude test scores. ① ② ③ ④
- D. The death penalty should be abolished. ① ② ③ ④
- E. Colleges and universities should divest of South African investments.
- There should be a constitutional amendment banning the destruction of the flag.
 - 1 2 3 4

1 2 3 4

1 2 3 4

1 2 3 4

① ② 3 ④

II. THE STATUS OF DIFFERENT GROUPS IN AMERICAN SOCIETY

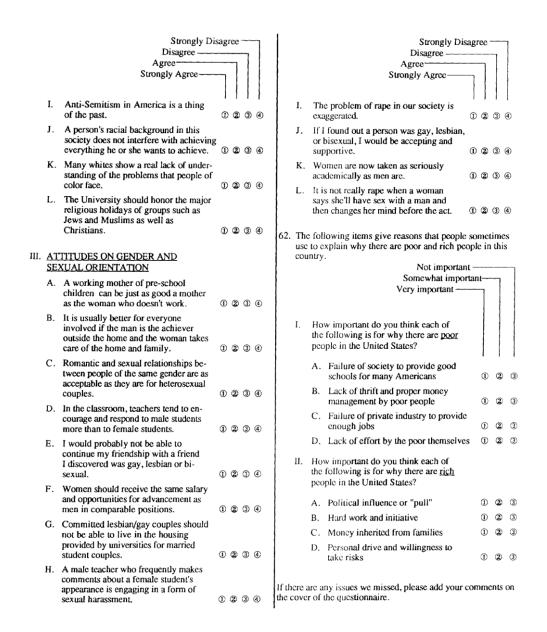
- A. In the United States there are still great differences between social levels -what one can achieve in life depends mainly on one's family background.
- B. Most big corporations in the United States are really interested in treating employees of color and white em-
- ployees equally.

 C. Inter-racial dating and marriage are equally as acceptable as dating and marrying a person of your own race.
- D. Most people of color are no longer discriminated against in the United States
- States.

 In the generation since the Civil
- Rights Movement, our society has done enough to promote the welfare of people of color.
- F. Interfaith marriages are as acceptable as marriages between people of the same religion.
- G. The system prevents people of color from getting their fair share of the good things in life, such as better jobs and more money.
- H. Most people of color have the drive and determination to get ahead.
- 0230

1 2 3 4

- 1 2 3 4
- 1 2 3 4
- 1 2 3 4



THANK YOU! Please place questionnaire in enclosed envelope and seal it. Return it at your <u>FIRST FLOOR OR HALL MEETING</u> or other collection place designated by your residence hall. (If unsure about collection procedure, check with your RA)

THE UNDERGRADUATE EXPERIENCE AT MICHIGAN

OPINIONS AND EXPERIENCES OF SECOND YEAR STUDENTS

University of Michigan Ann Arbor, Michigan 48109

General Instructions				
Please supply the information in the space provided or mark the circle corresponding to your chosen response. Example of the way to mark circles:				
⊗				
If you change your mind or mark the wrong space, cross it out ⊗ and fill in the space you wish.				
Part I. Student Information				

1.	Your Gender:	① Male	2 Female
2.	Date of Birth: Mo	onth Day	/ Year
3.	Where are you livi	ng now?	
	 With parents of Other private Campus stude Sorority/frater 	home, apartment on the housing	or room

Except for official University breaks, how often have you visited your home town since you've been at the University?

- Never
- Once or twice a semester About once a month
- About every other week
 Once a week or more
- 5. Your Racial/Ethnic Identification (please check all that

1	African American/Black Black Other (specify national origin)		
2	Asian American/Asian (specify national origin)		

Hispanic/Latino (specify national origin)

Native American/American Indian (specify tribal White/Caucasian (Non-Hispanic) (specify ethnicity/ national origin) Other (specify)

We are interested in the social network you have at the University of Michigan. First, think of your six closest friends at Michigan. For each friend please indicate (A) His or her gender; (B) Race or ethnicity; (C) Religion; (D) Whether the friend comes from a similar or different family income/social class background; and (E) The city and state the friend comes

	A	В	С	D	Ë
	GENDER	RACE/ETHNICITY	RELIGION	FAMILY INCOME/ SOCIAL CLASS	HOME CITY AND STATE
	Male — Female—			Different from mine— Same as mine————————————————————————————————————	
1	① ②			0 2	
2	0 2			0 2	
3	① ②			① ②	
4	0 2			0 2	
5	① ②			0 2	
6	① ②			0 2	

Part II. General Experiences at Michigan

7. To what extent have you been involved in the following activities at the U of M? Use the category "Substantially Involved" for those activities that are <u>particularly</u> important to you.

Substantially Involved-

			Somewhat Involve	d		
			Slightly Involved—			
		ľ	Not At All Involved	¬ 1		
	A.	Fraternity and/or soro	rity life	1 2	3	4
	B.	Intramural and/or inte	rcollegiate	1 2	3	4
	C.	Student government		1 2	3	4
	D.	Political activities		① ②	(3)	(4)
	E.	Arts performances and	d activities (e. a	0 0		
	E.	music performance, b		1 2	3	4
	F.	Residence hall activit council, social activit board)		1) 2	3	4
	G.	Religious clubs and a Christian Fellowship, etc.)		1 2	3	4
	H.	Groups and activities cultural-ethnic backgr Black Student Union, Association, Hillel, e	ound (such as Asian American	① ②	3	4
	I.	Community service (off) (e.g., Big Brother homeless shelter, etc.	r/Big Sister,	1) 2	3	4
	J.	Media activities (Mic (Michigan Review, W		1 2	3	4
	K.	Other (Specify:)	1 2	3	4
8.	spe	proximately how many nding in paid employm	hours per week are years during this acade	you mic y	ear?	
	① ② ③ ④ ⑤	None (Go to Q. 9) 10 hours a week or le 11-20 hours a week 21-30 hours a week More than 30 hours a				
	8a.	Is your employment	on campus, off camp	us, or	bot	h?
		① On campus	2) Off campus	3 B	oth	
9.		you a member of, or a	are you pledging, a fr	aterni	ty o	г

Yes (Specify which one: _No

10	Are you a member of an intercollegiate athletic team at Michigan?									
	1	Yes 2	No (Go to	Q 11)						
	10a.	If yes, whic	h one(s)	and the second s						
11.	How easy or difficult has it been for you to do each of the following at the University? If the opportunity is not important to you, please check "Not Particularly Important to Me."									
				Not Part Import						
				Very Diffic Fairly Diffic Fairly Easy— Very Easy —	cult	_				
	A.	Finding peo my backgrou		pus who share periences	1	2	3	4	(5)	
	B.	Getting to k talking with		y, seeing and ide of class	1	2	3	4	(5)	
	C.	Dating and l	having an a	ctive social	1	2	3	4	(5)	
	D.	Being taken to have prof capable of d	essors thin		1	2	3	4	(5)	
	E.	Managing p could affect			1	2	3	4	(5)	
	F.	Finding stud classes when difficulty			1	2	3	4	(5)	
	G.	Feeling con community belong here	feeling as	the campus s though I	1	2	3	4	(5)	
	H.	Organizing studying and			1	2	3	4	(5)	
	I.	Feeling com whose racia different fro	l/ethnic bac	kgrounds are	1	2	3	4	(5)	
	J.	Feeling on to		cademics vork required	1	2	3	4	(5)	
	K.	Finding stud socializing		comfortable	1	2	3	4	5	
	L.	Being respe I bring to cl			1	2	3	4	(5)	

2

- 12. Do you have any concern about your ability to finance your college education?
 - ① None (I am confident that I will have sufficient funds)
 - Some concern (but I will probably have enough funds)
 - Major concern (not sure I will be able to complete college)
- 13. Have you ever been on academic probation while at Michigan?
 - 1 Yes, now on probation
 - Yes, in the past, but not now
 - 3 No
- 14. We are interested in learning more about your experiences at the University of Michigan. Please indicate the extent to which you agree or disagree with each of the following statements.

Haven't Thought About This-

2 3 4 5

2 3 4 5

① ② ③ ④ ⑤

0 2 3 4 5

0 2 3 4 5

0 2 3 4 5

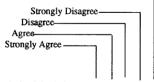
2 3 4 5

1 2 3 4 5

1 2 3 4 5

2 3 4 5

0 2 3 4 5



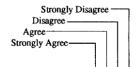
- I am sure I made the right choice in attending this University.
- B. The topics I am interested in are supported by faculty members.
- Most students at the University have values and attitudes different from my own.
- from my own.

 D. I have not done as well academically at Michigan as I thought I would.
- My social interactions on this campus are largely confined to students of my race/ethnicity.
- F. When I have difficulty with an assignment, I talk it over with my professor.
- G. I feel rejected by students on this campus whose race/ethnicity is different from my own.
- H. Family obligations have taken time and energy away from my academic
- The comments I make in class tend to be ignored by faculty members and other students.
- I am concerned about my personal safety on campus.
- K. I have encountered faculty and students who feel I don't have a right to be here.

Part III. Racial/Ethnic Environment and Relationships

A number of the following questions on diversity refer to students and people of color. This term, as used in the United States, refers particularly to people who are African American, Asian American, Hispanic/Latino and Native American/American Indian.

15. The following are some statements representing different views about racial and ethnic diversity in United States colleges and universities. Please indicate the extent to which you agree or disagree with each.



1 2 3 4

(1) (2) (3) (4)

1 2 3 4

1 2 3 4

1 2 3 4

1 2 3 4

- Despite our concern over racial injustice, colleges and universities do not have a primary responsibility to correct the situation.
- Different admissions criteria with respect to SAT and ACT scores may be justified for some students of color.
- C. Attempts to bring multiculturalism into the curriculum come at the expense of other topics students need to learn. ① ② ③ ④
- Students of color are given advantages that discriminate against other students at colleges and universities.
 ① ② ③ ④
- E. Colleges and universities should have a requirement for graduation that students take at least one course covering the role of ethnicity in society.

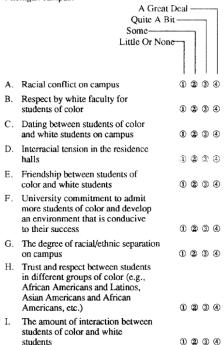
 ① ② ③ ④
- F. A high priority should be given to see that students of color receive financial aid for education after high school.
- G. The increased interest in multiculturalism in higher education is more political than educational.
- H. Colleges and universities should <u>not</u> provide resources to support educational, cultural, and social activities run by different groups of color.
- The hiring of more faculty of color should be a top priority of this university.
- J. Affirmative action for people of color, despite its underlying concern for equality, has helped reduce the academic standards of colleges and universities.
- K. By including multicultural perspectives in the curriculum, universities are fulfilling the real purpose of higher education.

0234

1 2 3 4

3

16. Institutions vary in the racial "climate" on campus -- in patterns of relations between people of color and white people. How would you rate the extent to which each of the following is present or descriptive of the University of Michigan campus?



17. The following questions are about the group you checked as your racial/ethnic identification in Question 5 (refer to page 1). Write this identification group on the line below, to make sure we understand the group you are referring to in the following questions. (If you checked more than one identification in Question 5, write in the one you most identify with.)

YOUR IDENTIFICATION GROUP

17a. People differ in how frequently they think about being ______(YOUR GROUP) and what they have in

common with people in your group. How often do you think about it?

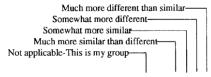
- (1) A lot
- Fairly often 2
- (3) Once in a while
- Hardly ever

People often feel that some groups in our society share many common political and economic interests, while other groups have few common interests or are even competing politically and economically. For each of the groups listed below, please indicate how much their interests and your group's interests are similar or different.

Much more different than similar-Somewhat more different-Somewhat more similar Much more similar than different-Not applicable-This is my group-The interests of my group and those of: A. African Americans/Blacks 9 1) 2) 3) 4) 1 2 3 4 B. Asian Americans 1 2 3 4 C. Hispanics/Latinos 1 2 3 4 D. Native Americans

17c. How about important values in life -- like values about work and family. How similar or different are your group's values and those of the following groups?

9



The values of my group and

E. White Americans

- 1 2 3 4 A. African Americans/Blacks 1 2 3 4 В. Asian Americans 9 1 2 3 4 C. Hispanics/Latinos 9 ① ② ③ ④ D. Native Americans E. White Americans 1 2 3 4
- 17d. Please indicate who you interact with in each of the following situations.



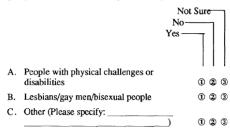
1 2 3

1 2 3

1) 2) 3) 4)

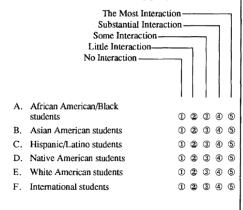
- A. When you study for an exam, do you study with students of your own group. a mixed group, or students from another racial/ethnic group?
- B. Are you more comfortable at parties with your own group, with a mixed group, or with students from another racial/ethnic group?

18. While we have focused on the diversity in racial and ethnic identities, we realize that other identification groups contribute to the diversity of the University community. Listed below are two examples of such groups. Please indicate if you consider yourself a member of either of these groups and if you are a member of another identification group that contributes to campus diversity.

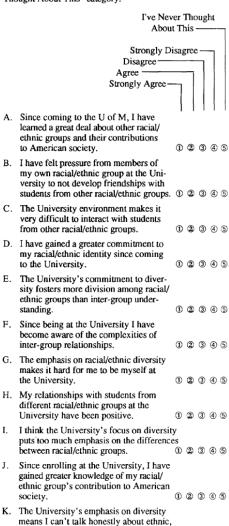


Part IV. Student Experiences with Diversity

19. Students vary in how much interaction they have with students from various racial/ethnic groups on campus. Please indicate the extent to which you <u>interact</u> with students from each of the following groups.



20. As you may know, the University President initiated a plan to develop a more racially and ethnically diverse student body at Michigan. Students mention both positive and negative aspects of this University's focus on diversity. Please indicate the extent to which you agree or disagree with each of the following statements. If you haven't considered a particular item, please check the "I've Never Thought About This" category.



racial, and gender issues.

1 2 3 4 5

21. Listed below are a number of diversity activities (e.g., programs, events, courses, etc.) at the University of Michigan. Please indicate whether or not you have participated in each of the following.

Not Aware Of This-

	No, Have Not Participated——								
	Yes, Have Participated								
A.	Hispanic Heritage Celebration events	1	2	3					
B.	The Trotter House	1	2	3					
C.	Courses or activities sponsored by interdisciplinary research centers (e.g., Program in American Culture, Women's Studies, Center for Afroamerican and African Studies, Center for Chinese Studies, etc.)	1	2	3					
D.	Native American PowWow	1	2	3					
E.	Martin Luther King Symposium events	1	2	3					
F.	Asian-American Awareness Week events	1	2	3					
G.	Black History Month events	1	2	3					
H.	Lesbian/Gay Male Pride Week	1	2	3					
I.	University Course 299 (Race, Ethnicity and Racism)	1	2	3					
J.	Residence hall programs sponsored by Minority Peer Advisors (MPAs)	1	2	3					
K.	The Baker-Mandela Center	1	2	3					
L.	Diversity sessions during Freshperson Orientation	1	2	3					
M.	Educational workshops on Gay/Lesbian/ Bisexual issues	1	2	3					
N.	Pilot Program in intergroup relations	1	2	3					
Ο.	Other diversity events on campus (Please specify:)	1	2	3					

21a. Referring back to the activities listed above, we would like to learn more about the impact of those activities which reflect your racial/ethnic, gender, or sexual orientation identity. What programs are those, and what positive and/or negative impact did those activities have on you?

21b. We are also interested in the impact of those activities which represented identities other than your own. What programs were those, and what positive and/or negative impact did they have on you?

22. In each of the following University settings, how much have you been exposed to information and activities devoted to understanding other racial/ethnic groups and interracial/ethnic relationships?



- A. In course readings, lectures, and discussions
- 1 2 3 4 5
- In other University programs and activities (Please list: __
 - 1 2 3 4 5
- C. In your informal interactions and conversations with friends
- ① ② ③ ④ ⑤

23. How do you think your opinions on issues of race relations compare with the opinions of most of the students at the University of Michigan?

The opinions on race relations of most Michigan students

- Much more liberal than mine
- 2 Somewhat more liberal than mine
- About the same as mine
- Somewhat more conservative than mine Much more conservative than mine

Part V. Academic Experiences at Michigan

The following set of questions asks about your academic experiences and your relations with faculty at the University of Michigan.

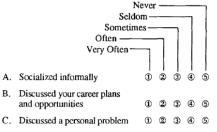
24. How satisfied have you been with each of the following aspects of your academic experience at the University? If the aspect is not important to you, please check "Not Particularly Important.'

Not Particularly Important-



- A. The intellectual quality and challenge of the classes I have taken
 - 1 2 3 4 5
- B. The relevance of the course material to issues that are important to students of my racial/ethnic background
 - 1 2 3 4 5
- C. The amount of effort I am putting into my courses
- 1 2 3 4 5 25. We are interested in the interactions students have with

faculty at this institution. How often have you done each of the following with a faculty member since enrolling at Michigan?



- D. Discussed academic or intellectual issues outside of
- 1 2 3 4 5

0 2 3 4 5

- E. Discussed and gotten helpful feedback on your tests, assignments, and/or other academic work
- 26. How easy or difficult has the work in your classes been?
 - Very difficult 1
 - Somewhat difficult
 - Not too difficult
 - Not at all difficult

27. What is the average number of hours each week you spend on homework?

hours per week

- 28. How certain are you that you will return to the University of Michigan next year?
 - Completely certain I will return (go to Q. 29)
 - Fairly certain I will return
 - Undecided
 - Fairly certain I won't return
 - Completely certain I won't return
 - 28a. If you don't return to Michigan, do you think you will transfer to another college or university?
 - 1 Yes (Specify institution:
 - 2 No (go to Q. 29)
 - 28b. If yes, why would you transfer -- what might be better for you at another university?

- 29. Have you needed tutoring or extra help in any subject since enrolling at the University of Michigan?

 - No, I have not needed help. Yes, I have needed help and received it. (Specify where you received help:
 - Yes, I have needed help but did not get it. (Please tell us why you did not get help:
- 30. Has there been at least one teacher at the University who has had a strong impact on your intellectual and/or personal development?
 - Yes (Go to Q. 30a)
- 2 No (Go to Q. 31)
- 30a. Think of the one teacher who has had the most impact on you. Was this faculty member:
 - ① Female
- 2 Male
- 30b. Was this teacher a:
 - ① Professor
- 2 Teaching Assistant (TA)
- 30c. What was the race/ethnicity of this teacher? (Please specify):

- 30d. What was the main reason this teacher had an impact on you? (Please select the <u>one</u> most important reason.)
 - The quality of the classroom teaching
 - Showed a personal interest in me outside of class
 - 3 Took my academic work seriously and encouraged my academic development
 - encouraged my academic development
 Got me involved in a research project
 - ⑤ Other (Please describe:
- 31. What is your present major field?
- 32. Which of the following statements best describes your position regarding your academic major when you entered Michigan? (Check one.)
 - ① I had the same choice I do now. (Go to Q. 33)
 - ② I didn't have a choice then. (Go to Q. 32a)
 - 3 I had a different choice than I do now. (Go to Q. 32a)
 - 32a. If your current choice represents a different position than you had when you entered, could you give some of the reasons for your present choice, or why you decided to change majors?

Part VI. Personal and Political Attitudes

33. The following statements inquire about your thoughts and feelings in a variety of situations. For each item, indicate how well it describes you. Be sure to read each item careful ly before responding and answer as honestly as you can.

Very much like me—
Quite a bit like me—
Somewhat like me—
A little bit like me—
Not at all like me—
ving the reasons or

- I really enjoy analyzing the reasons or causes for people's behavior.
- I sometimes find it difficult to see things from the "other person's" point of view
- 0 2 3 4 5

1 2 3 4 5

Very much like me-Quite a bit like me-Somewhat like me-A little bit like me Not at all like me C. I think a lot about the influence that 1 2 3 4 5 society has on other people. D. I try to look at everybody's side of a disagreement before I make a decision. 1 2 3 4 5 E. If I am sure I'm right about something, I don't waste much time listening to 1 2 3 4 5 other people's arguments. F. I don't enjoy getting into discussions where the causes for people's behavior 1 2 3 4 5 are being talked over. G. I believe that there are two sides to every question and try to look at them 1 2 3 4 5 both. H. I think a great deal about the questions "Who am I? What do I want? What 1 2 3 4 5 will I become? When I analyze a person's behavior I often find the causes form a chain that 1 2 3 4 5 goes back in time. I prefer simple rather than complex ex-1 2 3 4 5 planations for people's behavior. K. I am a person who prefers the familiar and predictable more than experiences 1 2 3 4 5 that are new and different. L. I think a lot about the influence that society has on my behavior and 1 2 3 4 5 personality. M. I tend to take people's behavior at face value and not worry about the inner causes for their behavior. 1 2 3 4 5 I have learned from my contact with lots of people that no one group has "the truth" or knows "the right way to 1 2 3 4 5 I do not enjoy thinking about the causes 1 2 3 4 5 of social problems in our society. P. I am a person who is eager to try new 1 2 3 4 5 Q. I don't think a lot about the kind of

myself pretty much for granted.

R. I try hard to reach a well thought-out

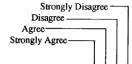
opinion about most political issues that come up.

person I am or want to be -- I take

1 2 3 4 5

(1) (2) (3) (4) (5)

- 34. Below you will find a scale on which the political views that people might hold are arranged from extremely liberal to extremely conservative. Please indicate where you would place yourself on this scale or haven't you thought much about this? 1 Extremely liberal Liberal Slightly liberal Moderate, middle of the road Slightly conservative Conservative Extremely conservative Haven't thought much about it 35. The following series of questions includes statements
- representing varying points of view on a number of legal, social, and political topics. Please indicate the extent to which you agree or disagree with each.



1) 2) 3) 4)

① ② ③ ④

1 2 3 4

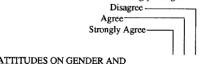
(1) (2) (3) (4)

1 2 3 4

1 2 3 4

THE STATUS OF DIFFERENT GROUPS IN AMERICAN SOCIETY

- A. In the United States there are still great differences between social levels what one can achieve in life depends mainly on one's family background. 1 2 3 4 B. Inter-racial dating and marriage are equally as acceptable as dating and marrying a person of your own race. 1 2 3 4 C. In the generation since the Civil Rights Movement, our society has done enough to promote the welfare
- of people of color. D. Interfaith marriages are as acceptable as marriages between people of the same religion.
- The system prevents people of color from getting their fair share of the good things in life, such as better jobs and more money.
- F. Most people of color have the drive and determination to get ahead.
- G. A person's racial background in this society does not interfere with achieving everything he or she wants to achieve.
- H. The University should honor the major religious holidays of groups such as Jews and Muslims as well as Christians.



Strongly Disagree

II. ATTITUDES ON GENDER AND

- children can be just as good a mother as the woman who doesn't work. B. It is usually better for everyone
- involved if the man is the achiever outside the home and the woman takes care of the home and family.
- I discovered was gay, lesbian or bisexual.
- appearance is engaging in a form of
- exaggerated.
- or bisexual, I would be accepting and
- It is not really rape when a woman says she'll have sex with a man and then changes her mind before the act. 1 2 3 4
- M. Lesbians, gay men, and bisexual people at this University face a high degree of discrimination and/or harassment.

(1) (2) (3) (4)

1 2 3 4

Women at this University still face many barriers to success

SEXUAL ORIENTATION A. A working mother of pre-school ① ② ③ ④ ① ② ③ ④ C. Romantic and sexual relationships between people of the same gender are as acceptable as they are for heterosexual (1) (2) (3) (4) couples. D. In the classroom, teachers tend to encourage and respond to male students 1 2 3 4 more than to female students. I would probably not be able to continue my friendship with a friend 1 2 3 4 F. Committed lesbian/gay couples should not be able to live in the housing provided by universities for married student couples. 1 2 3 4 G. A male teacher who frequently makes comments about a female student's sexual harassment. 1 2 3 4 H. The University maintains a supportive atmosphere for lesbians and gay men. 1 2 3 4 The problem of rape in our society is 1 2 3 4 If I found out a person was gay, lesbian, 1 2 3 4 supportive. Women are now taken as seriously academically as men are. 1 2 3 4

36.	The following items give reasons that people sometimes use to explain why there are poor and rich people in this country.							
	cou			٦				
		Somewhat importar						
			Very important					
	I.	the	w important do you think each of following is for why there are <u>poor</u> ple in the United States?					
		A.	Failure of society to provide good schools for many Americans	1	2	3		
		В.	Lack of thrift and proper money management by poor people	1	2	3		
		C.	Failure of private industry to provide enough jobs	1	2	3		
		D.	Lack of effort by the poor themselves	1	2	3		
	II.	the	w important do you think each of following is for why there are <u>rich</u> ple in the United States?					
		A.	Political influence or "pull"	1	2	3		
		B.	Hard work and initiative	1	2	3		
		C.	Money inherited from families	1	2	3		
		D.	Personal drive and willingness to take risks	1	2	3		
	here :	are a	ny issues we missed, please add your cor	nme	ents			

THANK YOU FOR YOUR PARTICIPATION -- PLEASE MAIL THE COMPLETED QUESTIONNAIRE TO US IN THE ENCLOSED PRE-PAID ENVELOPE.

Preparing College Students for a Diverse Democracy: First Year Student Views and Experiences



Dear Student: This survey is part of a national, collaborative project sponsored by the U.S. Department of Education. This campus has agreed to involve you in order to learn about students' college experiences and find ways universities might campos has agreed to involve you increase learn about students; college expenences and find ways universities might improve student preparation for living in a diverse democracy. Your participation is important to us; but it is voluntary and you do not have to answer questions that make you feel uncomfortable. Responses are strictly conflidential. Identifying information will be used only for purposes of following up to find out about the quality of your experiences at this university. Thank you in advance for your assistance in this national effort.

	Statement	of Consent	
understand that this su	urvey is administered by my institution	in collaboration with researchers to understan	nd students'
experiences within a div	verse democracy.		
completely confidential	and that my name will not be associated with any document p	sed as data in this study. I understand that all ted with my responses. I understand that my roduced from this research. I understand tha	name and other
	administrators or the national Project	Director, Sylvia Hurtado, 2117 SEB, Ann Arbor	MI 48109-1259
	or concerns about this study.		
	or concerns about this study.		
	or concerns about this study.	ature	Date

Please indicate your answer to each question by filling in the oval representing the category which best describes your views on the issue.

Marking instructions:

INCORRECT MARKS

CORRECT MARK

Blacken in each oval completely using a number 2 pencil If you erase, erase completely.

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Continue on

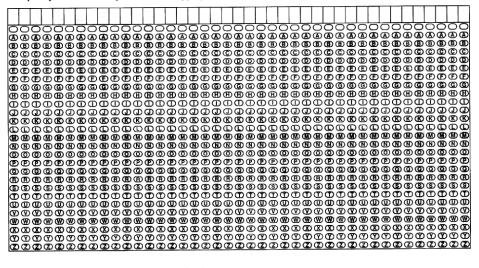
PLEASE DO NOT MARK IN THIS AREA

40455

the next page

Please provide the following information so that we may locate you and send a follow-up survey about your experiences at this university.

Please print your name clearly and fill in the appropriate ovals.



University Code: (Mark one according to instructions)

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

Please print clearly and fill in the appropriate ovals.

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I. Precollegiate E	xperiences/Background	Following is a list of reasons why some particular college. How importer of these reasons for your attendance at the content of these reasons.	nt was each
1. What type of high	school did you graduate from?	university? (Mark one for each item)	
(Mark one)		Not at all impor Somewhat impo	ent ortant
O Public	GED	Very Important	
Religious	 Home school or other 	Essential	
 Private, nonreligiou 	S	Desire to be near or live at home Good condemic regulation of the university	4 9 20 4 9 20
		Good academic reputation of the university Athletic program	4 3 2 4 4
O Hammandalisasi	to variable in the fallender areas	d. Academic support programs (tutoring, writing	
(Mark one for each	ate yourself in the following areas?	center, etc.)	തയയ യ
(Mark one for each	•	e. Social life	@@@@
	A major weakness Somewhat weak	 f. Recruitment and admissions programs made you feel welcome 	@ @ @ @
	Average	g. Financial aid support	4 D 2 D
	Somewhat strong	 h. Racially and ethnically diverse student body 	40000
a Communication of the	A major strength	i. Alumni	40000
 a. Communication skills b. Ability to work cooper 	s (5 (3 (2 (1))) ratively with diverse people (5 (3 (3 (2)))	j. Comfort with campus environment k. Lower cost than other institutions	40000
c. Writing ability	© © © © ©	High school teacher or counselor	0000
 d. Knowledge about my 	own culture 5000	m. Parents/guardians, family members, friends	40000
e. Math ability	©@ @ © ①		1715
f. Racial/cultural aware			
 g. Ability to solve compl h. Openness to having 	ex problems 5 3 2 1 my views challenged 5 3 2 1	7. Where did you rank academically in your	high
i. Leadership ability	3032 0	school graduating class? (Mark one)	
 Ability to see the wor 	ld from someone else's		
perspective	5000 0	○ Top 10% ○ Top 75%	
k. Knowledge about the others	cultural backgrounds of	☐ Top 25% ☐ Lowest 25% ☐ Don't Know	
	(5) (3) (2) (1) I negotiate controversial	O Don't know	
issues	©©©©		
m. Academic ability	6932 0	8. Indicate how frequently you engaged in a	nv of the
 n. Tolerance of others w o. Social self-confidence 		following during high school: (Mark one	or each item)
o. Social self-confidence	6 54 3 2 0	Never	
		A few times per year	
3 How many college	es did you apply to for Fall 2000	A few times per mo	nth iii
admission (include	ling this one)? (Mark one)	A tew times per we	ek .
1 college	◯ 4 colleges	Daily a. Used a computer to do homework	തമാത്രത
2 colleges	5 colleges	b. Discussed politics with students	9 0 0000 9 0 0000 9 0 0000
3 colleges	◯ 6 or more	c. Discussed racial/ethnic issues	50000 0
•		d. Participated in student clubs	5 (3 (3 (2) (1)
		e. Engaged in volunteer work	5 0 3000
4. How many accept	tances did you receive? (Mark one)	 f. Studied with someone from a different racial or ethnic group 	ാധ ായമാന
01	O 4	g. Participated in an academic honor society	3 3 3 3 3
O 2	O 5	h. Participated in varsity sports	30000 0
○3	○ 6 or more	i. Participated in activities to clean up the	
		environment j. Worked on school publications	5 0 3000 5 0 3000
E la Mala e Mine	see (Mark and)	k. Read a newspaper	300000
Is this college yo		Followed the presidential election process	30320 30320
1st choice	3rd choice	 m. Participated in religious activities or spiritual 	
2nd choice	 less than 3rd choice 		3 3 3 3 3
		n. Used the Internet or web	തരാമ ന
		9. Which best describes where you lived me	net of your
		life before college? (Mark one)	Jot of your
		○ Urban area ○ Small town ○ Suburban area ○ Rural area	
		C Subdibuli alou C Hulai alea	
		Continue	on
			1
_		the next pa	age
,			•

I. Precollegiate Experiences/Background (con't) 10. How would you describe the racial/ethnic composition of the following: (People of color includes African Americans, Hispanics, Asian Americans and American Indians) (Mark one for each item) All or nearly all people of color Mostly people of color Mostly white All or nearly all white and half people of color All or nearly all white and half people of color Mostly white All or nearly all white and half people of color All or nearly all white and half people of color Mostly white All or nearly all white and half people of color Mostly white All or nearly all white and half people of color Mostly white All or nearly all white and half people of color Mostly white All or nearly all white and half people of color Mostly white All or nearly all white and half people of color Mostly white All or nearly all white and half people of color Mostly white All or nearly all white and half people of color Mostly white All or nearly all white and half people of color Mostly white All or nearly all white and half people of color Mostly white All or nearly all white and half people of color Mostly white All or nearly all white and half people of color Mostly white All or nearly all white and half people of color Mostly white All or nearly all white and half people of color Mostly white All or nearly all white All or n	a. Get elected to student office. b. Work at least part-time while in college. c. Join a social fratemity or sorority. d. Need extra time to complete your degree. e. Get uturoring help in specific courses. f. Participate in student protests. g. Transfer to another college before graduating. h. Drop out of college temporarily (exclude transferring). j. Compete in intercollegiate athletics. k. Participate in groups and activities reflecting your own cultural-ethnic background. l. Take a course devoted to diversity issues in your first year of college. m. Help members of the community get out to vote in elections. n. Challenge others on racially/sexually derogatory comments. o. Join an organization that promotes cultural diversity. p. Make an effort to educate others about social issues.	100 kg
of the following: (People of color includes African Americans, Hispanics, Asian Americans and American Indians) (Mark one for each item) All or nearly all people of color Half white and half people of color Hostly white a. Neighborhood where you grew up b. High school that you graduated from c. Your friends in high school 11. In high school, how often did you encounter discrimination based on your: (Mark one for each item) Never Occasionally Frequently a. Race/ethnicity b. Gender c. Sexual orientation d. Economic background	a. Get elected to student office. b. Work at least part-time while in college. c. Join a social fratemity or sorority. d. Need extra time to complete your degree. e. Get tutoring help in specific courses. f. Participate in student protests. g. Transfer to another college before graduating. h. Drop out of college temporarily (exclude transferring). i. Drop out permanently (exclude transferring). j. Compete in intercollegiate athletics. k. Participate in groups and activities reflecting your own cultural-ethnic background. l. Take a course devoted to diversity issues in your first year of college. m. Help members of the community get out to vote in elections. n. Challenge others on racially/sexually derogatory comments. o. Join an organization that promotes cultural diversity. p. Make an effort to educate others about social	9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9
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a. Race/ethnicity b. Gender C. Sexual orientation d. Economic background	Join an organization that promotes cultural diversity. Make an effort to educate others about social	
b. Gender c. Sexual orientation d. Economic background 3000	p. Make an effort to educate others about social	
c. Sexual orientation	 Make an effort to educate others about social 	400 0
d. Economic background 300		1141
		43 2
	 Make efforts to get to know individuals from 	~~~
195,453	diverse backgrounds.	43 2
a. One or both of my parents went to college here. b. I received a scholarship to attend here. c. I went to a two-year college before entering here. d. I am the first in my family to go to college. e. I received need-based financial aid. f. I have attended a diversity awareness program. g. I wrote a paper at least 15 pages long. h. I spoke another language other than English at home. i. I received merit-based financial aid.		acting
 j. I took a class on multicultural/diversity issues. k. I applied for a loan to pay for college. 	17. Indicate the extent to which you agree or d	lisagree w
	the following statements: (Mark one for each	The state of the s
13. How difficult do you think each of the following will	Strongly disagne Disagree some	what
be during your first year at the University?	Agree somewhi	
(Mark <u>one</u> for <u>each</u> item)	Strongly agree	188
Somewhat difficult	 Students who talk a lot about societal problems 	_ 1115 _
Somewhat easy	turn me off.	(1) (1) (2) (3) (2) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3
Very easy	 b. I try to keep up with current events. c. Thinking about how this country will change in the 	ക്കമ
a. Keeping up with school work b. Making new friends	future is of little interest to me.	@@ @
b. Making new friends c. Finding academic help when you need it ① ② ①	d. I enjoy talking with other people about the reasons	215
d. Paving for college expenses 4324	and possible solutions to poverty.	௭௭௦
e. Feeling comfortable in your living environment ① ② ② ①	 e. I spend little time thinking about race relations in 	~ ~ ~
f. Managing family responsibilities ① ② ② ①	this country.	@ @@
g. Getting to know your way around ① ② ② ①	 I would probably find a television show on poverty in the U.S. to be interesting. 	തമാ
***************************************	g. I want to gain a broad, intellectually exciting	10 SA1
44 Miles of the following back describes your livies	education.	௭௧௦
14. Which of the following <u>best</u> describes your living situation during your first year of college? (Mark <u>one</u>)	 h. I enjoy getting into discussions about political 	
	issues.	@ @@
With parents or relatives	 I often think about the amount of power people in different segments of society have. 	@ @@
Off-campus (not with parents) Residence hall	j. When I see a homeless person, I think about how	1400
Other campus housing	it could happen to me.	493 2
	k. I learn the most about societal issues in	
	discussions with diverse peers.	43

III. Preferences for Thinking and Interacting (con't)

We would like to know your thoughts in a variety of situations. For each item, indicate how well it describes you. (Mark <u>one</u> for <u>each</u> item)

Not at all like me

	AND CALL PLANTS AND	133
		Maria ii
	Very much like me	e sa fina
a.	I don't usually analyze people's behavior.	5032 0
b.	I am interested in understanding how my own	250 PM
	thinking works when I make judgments about	200
	people.	50000
C.	I think very little about the different ways that	100 CA
	people influence each other.	00000
d.	I really enjoy analyzing the reason or causes	788 AT
	for people's behavior.	③④③② ①
e.	I think a lot about the influence that society has	410 Hat
	on other people.	③④③②①
f.	I prefer simple rather than complex	
	explanations for people's behavior.	3933 0
g.	I believe it is important to analyze and	190 (A)
	understand our own thinking processes.	⑤②②② ①
h.	I tend to take people's behavior at face value	報 選
	and not worry about the inner causes for	
	their behavior.	©©©©
i.	I think a lot about the influence that society has	
	on my behavior.	3032 0

How much interaction did you have with people in each of the following groups <u>before</u> coming to college? (Mark <u>one</u> for <u>each</u> item)

	NO Interaction
	Little interaction
	Some regular interaction
	Substantial interaction
	@@ @
2	430

	Substantial	Substantial interaction	
a.	African Americans/Blacks	40000	
b.	Hispanics/Latinos/Chicanos	4900	
C.	Asian Americans/Pacific Islanders	@@@@	
d.	Whites/Caucasians	400000	
e.	American Indians/Alaskan Natives	@@@	
f.	Multi-Racial/Multi-Ethnic individuals	4900	
g.	Gay/Lesbian/Bisexual individuals	4000	
ň.	People with disabilities	4320	
i.	People with different religious beliefs	40000	
		9784 1975	

People often have differences in perspectives. Indicate how much you agree or disagree with each statement. (Mark one for each item)

Strongly disagree	MARKEL SALIDRAM	5
alrongly disagree	建特别的是15年特别	
Disagree somewh	at	
Agree somewhat	19862 TE	
Strongly agree	162 35	額

Agree	somewhat
Strong	ly agree
a. There are two sides to every issue and I tr	y to look
at them both.	4990
 b. Conflicting perspectives is healthy in a der 	nocracy. 4 3 2 5
c. I try to look at everybody's side of a disagr	eement
before I make a decision.	4000
 Conflict is a normal part of life. 	@ @ @ @
 I sometimes find it difficult to see the "othe 	
person's" point of view.	@@@@
 I am afraid of conflicts when discussing so 	
issues.	
g. When I'm upset at someone, I usually try t	
myself in their shoes" for a while.	@@@
 It is best to avoid conflict with others. 	40000
 Democracy thrives on differing views. 	4990
 Conflict between groups can have positive 	1101 (13) (13) (13) (13) (13) (13) (13) (13
consequences.	@@@
 k. Building coalitions from varied interests is 	key to a
working democracy.	@@@

 Indicate how often you felt uncomfortable in a situation with a person or a group of people who are:
 (Mark <u>one</u> for <u>each</u> item) Never Rarely

	Sometimes Often
a. Women	@@@@
 b. Hispanics/Latinos/Chicanos 	@@@@
c. Whites/Caucasians	492 1
d. Gays/Lesbians/Bisexuals	@@@ @
e. Asian Americans	@@@@
f. Men	@ @@@
g. African Americans/Blacks	4921
 h. People with disabilities 	@@@ @
 American Indians/Alaskan Natives 	490 0
	PH 103 0.71

IV. Attitudes and Beliefs

Please rate your level of agreement or disagreement with the following statements:
 (Mark one for each item)
 Strongly disagree

22.	Please rate your level of agreement or disagreement with the following statements:				
	(Mark one for each item) Strongly disease				
	Disagree some				
	Agree somewhat				
		1974 315			
_	Strongly agree				
a.		@@@@			
_	policies for the common good.	$\Phi \Phi \Phi \Phi$			
D.	Some degree of inequality is necessary in a				
	society that wants to be the best in the world.	തമാമ			
c.	Even if I do the best I can to help others, it won't				
-	change the way society operates.	4000			
a.	People in my community are counting on me to do				
	well in college.	@@@@			
е.	If people were treated more equally we would				
	have fewer problems in this country.	തെമാന			
f.	I believe I can do things that can make a big				
_	difference in the lives of others.	@@@			
g.	My vote doesn't count much in improving the	500E 1075			
	leadership or policies for this country.	$\odot \odot \odot \odot$			
h.	It is not really that big a problem if some people	_ ## _ ##			
	have more of a chance in life than others.	തതുമന			
i.	Social progress should be measured by how far				
	the least among us are able to move	ED 1994			
_	economically.	40000			
j.	I should be able to say whatever I want rather	BH 46			
	than having to abide by rules to be civil to	建設 展展			
	others.	@@@@			
k.	I have an obligation to "give back" to the	_脚_脚			
	community.	തയമന			

k. I have an obligation to "give back" to the community.

 There is little I can do to make the world a better place to live.

 In I often think about how my personal decisions affect the welfare of others.

 Elected officials are unable to resolve their differences for the good of the people.

Continue on the next page

ത തമ ത 0000

താരാത **@**@@@

	IV. Attitudes and Beliefs (con't)		2 5.	Indicate the extent to which you agree or d with each statement. (Mark one for each ite	lisagree m)
22	In your role as a responsible citizen in this	n nonintu		Strongty disagre Disagree some	what
23.	how important are each of the following to			Agree combets	
	(Mark and for each item)	•		Strongly agree	100
	MALASINE MALASINE SANCE PROPERTY AND ADMINISTRATION OF THE PARTY OF TH		a.	Racial/ethnic discrimination is no longer a major	
	Somewhat impo			problem in the U.S.	4 3 2
	Very important	Desired and	b.	It's fair to give preference in college admissions to	
	Essential			children of alumni.	4 3 2
a.	Working to end poverty.	40000	C.	Many Whites lack an understanding of the	羅題
b.	Paying taxes to support public services.	(D) (D) (D)		problems that people from different racial/ethnic	100
C.	Using career-related skills to work in low-income			groups face.	400
	communities.	40000	d.	Colleges should support women's athletics as	250
d.	Contributing money to a political cause.	(1) (1) (1) (1)		much as they support men's athletics.	493 2
e.	Supporting a strong military.	0000	e.	Our society has done enough to promote the	
f.	Promoting racial tolerance and respect.	ത്തത്ത	•	welfare of different racial/ethnic groups.	OO
g.	Contributing money to a charitable cause.	40000	f.	A high priority should be given to see that students	
h.	Defending the right to own a gun.	@ @ @ @		of color receive financial aid for college.	400
i.	Voting in national elections.	0000	0	Hiring more faculty of color should be a top priority	UA C
_	Creating awareness of how people affect the	G G G G	g.	of this University.	OO
j.	environment.	4000	h	The system prevents people of color from getting	
		4000	11.		
ĸ.	Working to minimize government involvement in			their fair share of good jobs and better pay.	@ @@
	individual affairs.	@@@@	i.	State hate crimes laws are needed to protect	77
I.	Making consumer decisions based on a			people from harassment based on race, gender	
_	company's ethics.	@@@@	-	or sexual orientation.	OO 2
	Speaking up against social injustice.	0000	J.	A person's racial background in this society does	1988
n.	Volunteering with community groups or agencies.	@@@@		not interfere with achieving everything he or she	369
		2004 1/9/40		wants to achieve.	@ @@
			k.	Colleges should aggressively recruit more	113
24	Many colleges have programs for diversit			students of color.	400
	education. Indicate whether you support	or oppose	I.	Enhancing a student's ability to live in a	
	each of following: (Mark one for each item)			multicultural society is part of a university's	240
				mission.	4 3 2
	Strongly oppose	SAME AND ADDRESS OF	m.	Colleges do not have a responsibility to correct	
	Oppose somewi	nat		racial/ethnic injustice.	4 9 2
	* Circle Street	in the second	n.	Emphasizing diversity contributes to disunity on	100
	Strongly support			campus.	40 30 2
a.					1000
	ethnic groups and women into courses.	0000			
b.	Requiring students to complete a community-	B0000 9120		Marie Marie de la constantina della constantina	
	based experience with diverse populations.	Φ	26.	We are all members of different social ider	itity
C.	Offering courses to help students develop an			groups (e.g., gender, race, ethnicity, sexua	
	appreciation for their own and other cultures.	$\mathbf{G}\mathbf{G}\mathbf{G}\mathbf{G}$		orientation, socio-economic class, etc.). H	
d.	Requiring students to take at least one cultural or			do you think about your: (Mark one for eac	n item)
	ethnic diversity course in order to graduate.	4900		Never	A 4- 4- 4-
e.				Rarely	ar associate service at the
	between students with different backgrounds	7965		Some	cies .
	and beliefs.	0000		Often	
		450	a.	Gender	നതുമ
				Race	4 9 2 3 2
				Ethnicity	(1)
				Sexual orientation	000
				Physical or learning disability	000
				Socio-economic class	0
			1.	Socio-economic dass	<u>Uwc</u>
					HIRITED
		1			
		- 1			

IV. Attitudes and Beliefs (con't)

27. Indicate the extent to which you agree or disagree with each statement. (Mark one for each item)

	Strongly disagre	90
	Disagree some	what
	Agree somewha	
	Strongly agree	EE 250
a.	It is important for me to educate others about the	清新
٠.	social identity groups to which I belong.	0000
b.	I often think about what I have in common with	
υ.		$\sigma \sigma \sigma \sigma \sigma$
	others in my racial/ethnic group.	@@@@
C.	I like to learn about social identity groups different	_ 125 _ 125
_	from my own.	0000
d.	I would probably not be able to continue my	100 MB
	friendship with a friend who I discovered was	3E 3E
	homosexual.	40000
e.	I think that what generally happens to people in	新 群
	my racial/ethnic group will affect what happens	
	in my life.	40000
f.	I want to bridge differences between social identity	
••	groups.	@@@@
q.	I am physically attracted to women.	0000
h.	I feel proud when a member of my racial/ethnic	
11.	group accomplishes something outstanding.	@ @@@
i.	Women should be taken as seriously as men in	യയയ
ı.		
-	the classroom.	@@@@
j.	If I found out someone I knew was gay, lesbian, or	_ 福 _ 223
	bisexual, I'd be accepting and supportive.	@ @ @ @
k.	Students with disabilities should not be given extra	2000年
	time to take tests.	40000
1.	Immigrants should receive the same public	The the
	services as U.S. citizens.	4 3 3 2 4
m.	I am physically attracted to men.	4920
n.	To treat everyone fairly, we need to ignore the	
	color of people's skin.	4000
o.	Romantic relationships between people of the	
٥.	same gender are as acceptable as they are for	184 day
	heterosexual couples.	0000
_	I would vote in a presidential election for a	GOOD
p.		加 問題
	qualified woman whose views are similar to	0000
	mine.	40000
q.	I am not likely to date or marry someone from a	
	race/ethnicity different than my own.	\odot
		aund total

8.	racial/ethnic groups have similar or d and beliefs from your own. (Mark one	ifferent values
	Very similar Somewhat	similar
	Somewhat	
	Very differe	nt iii iii
a.	African Americans/Blacks	49920
b.	Hispanics/Latinos/Chicanos	@ @ @ @
C.	Asian Americans/Pacific Islanders	40000
d.	Whites/Caucasians	4900
e.	Native American/American Indians/Alaskan	
	Natives	തെ തുത

V. Demographic Informat	ion				
29. What is your gender? (Mark	o <u>ne)</u> D Female				
○ Married C	status? (Mark <u>one)</u>) Separated) Divorced) Widowed				
31. Do you have a disability? (No. 2 a. None b. Learning disability c. Physical/health related disability d. Other disability	Mark <u>all</u> that apply) iility				
32. How do you identify yoursel (Mark all that apply) a. African American/Black b. Asian American/Pacific Islan subcontinent) c. Native American/American Ir d. Hispanic/Latino/Chicano e. White/Caucasian (not of Hisp	der (includes the Indian ndian/Alaskan Native panic origin; persons having rica, or the Middle East)				
each of your parents/guardi column) Level of education completed Don't Know Some high school High school graduate Some college Bachelor's degree Master's degree Doctorate or professional degre (e.g. JD, MD, PhD)	Ans? (Mark <u>one</u> in <u>each</u> Mother				
34. What is your best estimate of last year? Consider income taxes: (Mark one) Less than \$10,000	of your total family income from all sources before \$\\$40,000-59,999 \$60,000-99,999 \$100,000-149,999 \$150,000 or more				
35. Which of the following most accurately describes your generation and citizenship status? (Mark one) At least one of my grandparents, my parents and I are U.S. born. At least one of my parents and I are U.S. born. I am U.S. born, my parents are not. Foreign born naturalized citizen. Foreign born resident allen or permanent resident. Student visa. Continue on the next page					

Your campus may have a page of additional questions. Follow instructions on the extra page and mark your answers here for each of the final set of questions provided by your campus. (1) (2) (3) (4) (5)

36.	Ф	(2)	3	4)	(5)
37.	Œ	2	3	4	(5)
38.	Ф	2	3	4	(3)
39.	0	2	3	4	3
40.	Φ	2	3	4	(3)
41.	Ф	2	3	④	⑤
42.	Œ	2	3	4	⑤
43.	①	2	3	4	(5)
44.	Œ	@	3	4	⑤
45.	Œ	2	3	4	(5)
46.	0	2	3	4	(5)
47.	Ф	2	3	4	⑤
48.	Œ	2	3	4	(3)
49.	Œ	2	3	4	(5)

50. ① ② ③ ④ ⑤

Thank you for participating! If you have any questions about the study, you may contact Sylvia Hurtado, Project Director, Center for the Study of Higher and Postsecondary Education, 2117 SEB, Ann Arbor MI, 48109-1259. © 2000

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PLEASE DO NOT MARK IN THIS AREA

Preparing College Students for a Diverse Democracy: Second-Year Survey of Student Views and Experiences



Dear Student: This survey is part of a national, collaborative project sponsored by the U.S. Department of Education. This campus has agreed to involve you in order to learn about students' college experiences and find ways universities might improve student preparation for living in a diverse democracy. Your participation is important to us; but it is voluntary and you do not have to answer questions that make you feel uncomfortable, and you can withdraw at anytime. Responses are strictly confidential. Identifying information will be used only for purposes of following up to find out about the quality of your experiences at this university. Thank you in advance for your assistance in this national effort.

Statement of Consent

am over 17 years of age, in good physical health, and understand that this survey is administered by my institution in collaboration with researchers to understand students' experiences within a diverse democracy.

I hereby voluntarily give permission for my responses to be used as data in this study. I understand that all responses are completely confidential and that my name will not be associated with my responses. I understand that my name and other identifying factors will not be associated with any document produced from this research. I understand that my name and ID number will be used to merge responses from this survey and the first-year survey and that after all data have been merged, my name and ID number will be removed from the data set. I understand that I can express my ideas and opinions without consequence and that there are no known risks to participating in this project.

I may contact campus administrators or the national Project Director, Sylvia Hurtado, 2117 SEB, Ann Arbor MI 48109-1259 any time with questions or concerns about this study. Additionally, I may contact the Chairperson of my campus IRB Office with any questions regarding my participation in this study.

Print your name

Signature

Date

Please indicate your answer to each question by filling in the oval representing the category which best describes your views on the issue.

Marking instructions

Blacken in each oval completely using a number 2 pencil If you erase, erase completely.

INCORRECT MARKS

CORRECT MARK

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Continue on the next page

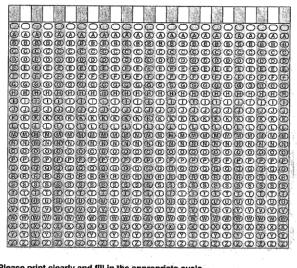


PLEASE DO NOT MARK IN THIS AREA

Please provide the following information so that we may locate you and send a follow-up survey about your experiences at this university.

Please print your name clearly and fill in the appropriate ovals.

Last Name



First Name

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Please print clearly and fill in the appropriate ovals

Date of Birth					
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	CONTRACTOR OF THE PARTY OF THE		
I. Experiences/Background		Mark <u>all</u> of the activities that apply to you entered college:	ou since you
		 a. Participated in intercollegiate athletics b. Helped members in the community to get 	out and vote
. Which University did you enter in Fall 20	00?	c. Lived in a culturally-themed residence hall	
(Mark one only)		 d. Assisted on faculty research projects 	
 Arizona State Univ. Univ. of Michigar Norfolk State Univ. Univ. of Minneso 		e. Studied abroad (outside of U.S.)f. Voted in federal/state elections	
UCLA Univ. of New Me		g. Joined a sorority or fraternity	
Univ. of Maryland Univ. of Vermont		 h. Joined an organization reflecting my own 	
Univ. of Massachusetts Univ. of Washing	iton	 i. Held a campus leadership position (e.g. st government, Resident Advisor, club offic 	
		j. Transferred from another college	61, 610.)
 Which of the following describes your cuenrollment status? (Mark one only) 	irrent	 k. Joined an organization that promotes cultured 	ıral diversity
Enrolled at the same university I entered in Fall	2000	 I. Joined an Asian, Black or Latino sorority o m. Dropped out of college temporarily 	r fraternity
Enrolled at a different college/university	2000	n. Lived with people from cultural background	ds different than
Not enrolled at any college/university		my own	
		o. Voted in student government elections	
. Will you enroll at this university in Fall 2	002?	7. Since coming to the University, how of	en have vou
○ No ○ Yes		done the following? (Mark one for each	
O 166		Very o	ften
******************	† ⊕ † ⊕	Often	
Please complete the survey even if yo	uı are	Somel Seldor	
no longer enrolled at the university m		Never	
in question 1.		Participated in class discussion Made an effort to educate others about social	00000
*0*0*0*0*0*0*0*0*0	*© ★©	issues	00000
		c. Felt challenged to think more broadly about an	
How difficult was each of the following of		d. Heard students express stereotypes about	02305
first year at the University? (Mark one fo		racial/ethnic groups	02335
Very easy		e. Participated in student protests	DO39
Somewhat d		f. Fell asleep in class g. Felt insulted or threatened based on my sexual	00000
Very difficult		orientation	02333
Keeping up with school work	0000	h. Made efforts to get to know individuals from	00000
. Making new friends Finding academic help when you needed it	0000 0000	diverse backgrounds i. Felt overwhelmed by all I had to do	00000 0000
. Paying for college expenses	0234	 Challenged others on racially/sexually 	2. 付款及销售。
Feeling comfortable in your living environment Managing family responsibilities	0000	derogatory comment k. Talked to high school students about college	00000
Managing family responsibilities Getting to know your way around	0230 0230	 k. Talked to high school students about college l. Engaged in discussions about racial/ethnic 	വരാവരു
,	VI BELLE	issues in class	02333
. How would you currently rate yourself in	the	 Felt pressure from members of my own racial/ethnic group not to socialize with other 	130 121
following areas? (Mark one for each item		racial/ethnic groups not to socialize with other racial/ethnic groups	02333
A major strength			Translation.
Somewhat strong	HISTORY	8. What is the highest academic degree the	nat you intend
Average Somewhat weak	TOTAL N	to obtain? (Mark one)	-
A major weakness		None	
Communication skills	00000	☐ Bachelor's Degree ☐ Master's Degree (e.g. MS, MBA, MDiv)	
Ability to work cooperatively with diverse people Writing ability	00000	O Doctorate (e.g. PhD, EdD)	
Knowledge about my own culture	00000 00000	O Professional Degree (e.g. JD, MD)	
Math ability Racial/cultural awareness	00000	Other	
Racial/cultural awareness Ability to solve complex problems	02395		
Openness to having my views challenged	00000		
Leadership ability Ability to see the world from someone else's	00005		
perspective	00000		
. Knowledge about the cultural backgrounds of	00000		
Knowledge about the cultural backgrounds of others			
Knowledge about the cultural backgrounds of others Ability to discuss and negotiate controversial issues	00000		
Knowledge about the cultural backgrounds of others Ability to discuss and negotiate controversial issues Academic ability	02345		
Knowledge about the cultural backgrounds of others Ability to discuss and negotiate controversial	00000	Continue the next	

15.	. How many courses have you enrolled in that included the following?: (Mark one for each ite	em)
	Three of the Two Process of the	re

a. Material/readings on gender issues
b. Faculty who created opportunities for class
discussions/interactions with other students
c. Material/readings on issues of oppression
d. An experience serving communities in need (e.g. service learning)
e. Material/readings on race and ethnicity issues
f. Opportunities for intensive dialogue between
students with different backgrounds and beliefs 0000 0000 0000 0000 0000 0000

III. Thinking and Interacting

16. Indicate the extent to which you agree or disagree with the following statements: (Mark one for each item)

turn me off b. I try to keep up with current events c. Thinking about how this country will change in the future is of little interest to me d. I enjoy talking with other people about the reasons and possible solutions to poverty e. I spend little time thinking about race relations in this country f. I would probably find a television show on poverty in the U.S. to be interesting g. I want to gain a broad, intellectually exciting education h. I enjoy getting into discussions about political issues i. I often think about the amount of power people in different segments of society have j. When I see a homeless person, I think about how it could happen to me k. I learn the most about societal issues in		Strongly, agree Agree somewhat Disagree somewhat Strongly disagree Students who talk a lot about societal problems	
b. I try to keep up with current events c. Thinking about how this country will change in the future is of little interest to me d. I enjoy talking with other people about the reasons and possible solutions to poverty e. I spend little time thinking about race relations in this country in the U.S. to be interesting g. I want to gain a broad, intellectually exciting education h. I enjoy getting into discussions about political issues i. I often think about the amount of power people in different segments of society have j. When I see a homeless person, I think about how it could happen to me lease the second of	a.		നമായ
tuture is of little interest to me d. I enjoy talking with other people about the reasons and possible solutions to poverty e. I spend little time thinking about race relations in this country f. I would probably find a television show on poverty in the U.S. to be interesting education h. I enjoy getting into discussions about political issues i. I often think about the amount of power people in different segments of society have j. When I see a homeless person, I think about how it could happen to me k. I learn the most about societal issues in	b.	I try to keep up with current events	0000
and possible solutions to poverty e. I spend little time thinking about race relations in this country for the U.S. to be interesting g. I want to gain a broad, intellectually exciting education h. I enjoy getting into discussions about political issues i. I often think about the amount of power people in different segments of society have j. When I see a homeless person, I think about how it could happen to me k. I learn the most about societal issues in	c.		നമയ
this country 1. I would probably find a television show on poverty in the U.S. to be interesting g. I want to gain a broad, intellectually exciting education I enjoy getting into discussions about political issues I offen think about the amount of power people in different segments of society have j. When I see a homeless person, I think about how it could happen to me k. I learn the most about societal issues in		and possible solutions to poverty	0000
in the U.S. to be interesting g. I want to gain a broad, intellectually exciting education h. I enjoy getting into discussions about political issues i. I often think about the amount of power people in different segments of society have j. When I see a homeless person, I think about how it could happen to me k. I learn the most about societal issues in		this country	0000
education h. I enjoy getting into discussions about political issues i. I often think about the amount of power people in different segments of society have j. When I see a homeless person, I think about how it could happen to me l. I learn the most about societal issues in	f.	in the U.S. to be interesting	0000
issues i. I often think about the amount of power people in different segments of society have j. When I see a homeless person, I think about how it could happen to me k. I learn the most about societal issues in	g.	education	0000
different segments of society have j. When I see a homeless person, I think about how it could happen to me k. I learn the most about societal issues in	h.		0000
it could happen to me k. I learn the most about societal issues in	i.		0000
	j.		0000
	k.	I learn the most about societal issues in discussions with diverse peers	000

We would like to know your thoughts in a variety of
situations. For each item, indicate how well it
describes you. (Mark one for each item)

	Very much like n	ne
	Like me	
	Somewhat like n	ne
	Not like me	经过报 计图
	Not at all like me	rando Taka
a.	I am interested in understanding how my own	
	thinking works when I make judgments about	45. 图图:根据以
	people	00000
b.	I really enjoy analyzing the reason or causes for	CONTRACTOR OF THE PARTY.
	people's behavior	00006
Ç.	I think a lot about the influence that society has	建设建设建设
	on other people	DOJE
d.	I realize that getting along with individuals from	建筑的建筑
	different racial groups is more difficult than I	THE STATE OF
	originally thought	00005
e.	I prefer simple rather than complex explanations	上海的上海线。
	for people's behavior	DTTT
f.	I believe it is important to analyze and	· 经工程银行 · 自由口
	understand our own thinking processes	00000
g.	I think a lot about the influence that society has	
	on my behavior	@@@ @
		A HARMS A TABLE

18. How much interaction have you had with people in each of the following groups in college?

(Mark one for each item)

Substantial interaction

	Substantial intera Some regular inte Little interaction No interaction	
a.	African Americans/Blacks	DOOG
b.	Hispanics/Latinos/Chicanos	DODE
C.	Asian Americans/Pacific Islanders	DOJE
d.	Whites/Caucasians	0006
e.	American Indians/Alaskan Natives	DITE
f.	Gay/Lesbian/Bisexual individuals	DØ @4
g.	People with disabilities	1000
h.	People with different religious beliefs	0000
		共產黨 18件章

Think of your 5 closest friends at this university; how many of them are of a different race/ethnicity from yourself? (Mark one)

None	
One	
→ Two	
Three	
○ Four or mo	re

Continue on the next page



III. Thinking and Interacting (con't) 20. People often have differences in perspe

People often have differences in perspectives. Indicate how much you agree or disagree with each statement. (Mark <u>one</u> for <u>each</u> item)

Strongly agree

	Agree Somewin	LOSSING ROSESCO CHARGES
	Disagree some	what
	Strongly disagre	e li ili
a.	There are two sides to every issue and I try to look	以报 上制
	at them both	0000
b.	Conflicting perspectives is healthy in a democracy	DEGE
C,	I try to look at everybody's side of a disagreement	5 M
	before I make a decision	10000
d.	Conflict is a normal part of life	1233
e.	I sometimes find it difficult to see the "other	化
	person's" point of view	0230
f.	I am afraid of conflicts when discussing social	电视转运图
	issues	0030
g.	When I'm upset at someone, I usually try to "put	A 2 10 10 10 10 10 10 10 10 10 10 10 10 10
	myself in their shoes" for a while	0200
h.	It is best to avoid conflict with others	DØ3A
i.	Democracy thrives on differing views	0030
j.	Conflict between groups can have positive	E15 42 15 128
	consequences	0030
k.	Building coalitions from varied interests is key to a	
	working democracy	0233
		市场连续建筑。 建多电

21. Indicate how often you felt <u>uncomfortable</u> in a situation with a person or a group of people who are: (Mark <u>one</u> for <u>each</u> item)

	,	Rarely Sometimes Often
a.	Hispanics/Latinos/Chicanos	0000
b.	Whites/Caucasians	0000
c.	Gays/Lesbians/Bisexuals	0000
d.	Asian Americans/Pacific Islanders	0000
e.	African Americans/Blacks	0000
f.	American Indians/Alaskan Natives	0239

IV. Attitudes and Beliefs

22. In your role as a responsible citizen in this society, how important is each of the following to you?

(Mark one for each item)

Essential

	Somewhat important Not important				
a.	Working to end poverty	D 234			
b.	Paying taxes to support public services	0000			
c.	Using career-related skills to work in low-income				
	communities	DZ3			
d.	Contributing money to a political cause	0000			
e.	Supporting a strong military	O O O O			
f.	Promoting racial tolerance and respect	T T T T			
g.	Contributing money to a charitable cause	0030			
ĥ.	Defending the right to own a gun	0030			
i.	Voting in national elections	DO3			
Ţ.	Creating awareness of how people affect the	1. 100			
	environment	0000			
k.	Working to minimize government involvement in	15 ME 15 ME			
	individual affairs	DØ3			
I.	Making consumer decisions based on a	。 超新工程			
	company's ethics	1234			
m.	Speaking up against social injustice	1239			
n.	Volunteering with community groups or agencies	DØ3F			

23. Indicate whether you think each of the following racial/ethnic groups have similar or different values and beliefs from your own. (Mark one for each item)

Very similar.

	Somewhat differe	nt
a.	African Americans/Blacks	D Z33
b.	Hispanics/Latinos/Chicanos	DDDG
C.	Asian Americans/Pacific Islanders	O O O O
d.	Whites/Caucasians	DØ39
e.	American Indians/Alaskan Natives	0000
24.	Please rate your level of agreement or disa with the following statements:	greement
	(Mark one for each item) Strongly agree Agree somewhat	ut 🚶
	Disagree some	
a.	My individual rights are more important than	NATIONAL PROPERTY.
	policies for the common good	0000
b.	Some degree of inequality is necessary in a	测器 图4
	society that wants to be the best in the world	(D(2)(3)(4
C.	Even if I do the best I can to help others, it won't	38. 数约46. 使
	change the way society operates	DOO
d.	People in my community are counting on me to do	回過數學的
	well in college	① ②③(4
e.	If people were treated more equally we would	
	have fewer problems in this country	0000
f.	I believe I can do things that can make a big	福州新州。
	difference in the lives of others	0233
g.	My vote doesn't count much in improving the	STATE OF STREET
-	leadership or policies for this country	D236
h.	It is not really that big a problem if some people	以外科学 44
	have more of a chance in life than others	0234
i.	Social progress should be measured by how far	建筑技术
	the least among us are able to move	331111
	economically	DØBE
ī.	I should be able to say whatever I want rather	10000000000000000000000000000000000000
	than having to abide by rules to be civil to others	DISI
k.	I have an obligation to "give back" to the	新疆接受
	community	0000
I.	There is little I can do to make the world a better	THE REAL PROPERTY.
	place to live	0000
m.	I often think about how my personal decisions	411234
	affect the welfare of others	ග ගලල
n.	Elected officials are unable to resolve their	TABLE OF
	differences for the good of the people	D 3 3 E
		\$4.0828 FML 825

IV. Attitudes and Beliefs (con't)

25.	Indicate the extent to	which	you agree or disagree	
	with each statement.	(Mark	one for each item)	

	Strongly agree	
	Agree somewh	
	Disagree some	what
	Strongly disagr	ee
a.	Racial/ethnic discrimination is no longer a major	
	problem in the U.S.	0034
b.	It's fair to give preference in college admissions to	ICI BIO E
	children of alumni	0000
C.	Colleges should support women's athletics as	
	much as they support men's athletics	0000
d.	Our society has done enough to promote the	162 184
	welfare of different racial/ethnic groups	0234
e.		
	of this university	നമരുത
f.	Colleges do not have a responsibility to correct	
	racial/ethnic injustice	നമയ്
g.	The system prevents people of color from getting	THE GITTE
9.	their fair share of good jobs and better pay	0034
h.		
11.	campus	0004
i.	State hate crime laws are needed to protect	काला का व
١.		
	people from harassment based on race, gender or sexual orientation	
_		0000
j.	Colleges should aggressively recruit more	上世上世
1.	students of color	നമരി
ĸ.	A person's racial background in this society does	紅髓 梅
	not interfere with achieving everything he or she	
	wants to achieve	0000
I.	Enhancing a student's ability to live in a	1 13 10
	multicultural society is part of a university's	
-	mission	0034
m.	We need to stop emphasizing race and treat	1. Bit. 103
	everybody the same	0000
n.	A high priority should be given to see that students	J. 180
	of color receive financial aid for college	0030
		80. 4800 · 1. 800
00	We are all	

26. We are all members of different social identity groups (e.g., gender, race, ethnicity, sexual orientation, socio-economic class, etc.). How often do wut think sout your. (Mark or texas) item)

	do you think about you	r: (Mark <u>one</u> for <u>each</u> item)		
		Often Sometimes Rarely Never		
a.	Gender			
b.	Race	0000		
c.	Ethnicity	0000		
d.	Sexual orientation	0000		
e.	Socio-economic class	ට ල ම ම		

27.	Indicate the extent to	which you agree or disagree
	with each statement.	(Mark one for each item)

	Agree somewh	
	Disagree some	
	Strongly disagre	
a.	It is important for me to educate others about the	
	social identity groups to which I belong	0000
b.	I often think about what I have in common with	
	others in my racial/ethnic group	0000
c.	the to really about occidinating groups different	通過過過
_	from my own	<u> </u>
a.	I would probably not be able to continue my	
	friendship with a friend who I discovered was homosexual	നമരത
e.	I think that what generally happens to people in	
٠.	my racial/ethnic group will affect what happens	
	in my life	0000
f.	I want to bridge differences between social identity	
	groups	0000
g.	I am physically attracted to women	0000
h.	I feel proud when a member of my racial/ethnic	二月末 一月日
	group accomplishes something outstanding	1000
i.	If I found out someone I knew was gay, lesbian, or	
-	bisexual, I'd be accepting and supportive	0030
j.	Students with disabilities should not be given extra time to take tests	
k.	Immigrants should receive the same public	0000
κ.	services as U.S. citizens	നമരത
ı.	I am physically attracted to men	0000
m.	Romantic relationships between people of the	A STATISTICS OF STREET
	same gender are as acceptable as they are for	新聞 對關
	heterosexual couples	0000
		表:: 1月1日 表: 2000年

V. Demographic Information

28. What is your gender? (Mark one)

⊃ Male	0	Femal

Which best describes your current living situation this academic year? (Mark one)

- With parents or relatives
 Off-campus (not with family)
 Residence hall
 Fraternity or sorority
 Other campus housing

30. What is your current marital status? (Mark one)

- Separated
 Divorced
 Widowed
- Single, never married
 Married
 Living with someone in a
 marriage-like relationship

31. How do you identify yourself racially/ethnically? (Mark <u>all</u> that apply)

- (wark all mat apply)

 a. African American/Black
 b. Asian American/Pacific Islander (includes the Indian subcontinent)

 c. American Indian/Alaskan Native
 d. Hispanic/Latino/Chicano
 e. White/Caucasian (not of Hispanic origin; persons having origins in Europe, North Africa, or the Middle East)

Continue on the next page



Your campus may have a page of additional questions. Follow instructions on the extra page and mark your answers here for each of the final set of questions provided by your campus. 32. **①** 2 3 **(4) (5)** 33, 1 2 3 **4 ⑤** 34. ① 2 3 **4** (5) 3 **(4)** (5) 35. ① 2 (2) 3 **(4**) **(5)** 36. 1 2 3 **(4)** (5) 37. **①** 2 3 4 (5) (5) 39. **(D)** 2 3 **4** (5) 2 3 **(4)** 40. **①** Œ Thank you for participating! If you have any questions about the study, you may contact Sylvia Hurtado, Project Director, Center for the Study of Higher and Postsecondary Education, 2117 SEB, Ann Arbor MI, 48109-1259. © 2002 nExpert[™] forms by NCS Pearson Printed in U.S.A. Mark Reflex® MM243738-1 PLEASE DO NOT MARK IN THIS AREA O O O O O O O O O O O O O O O O O O 11018

Appendix B: Variable Comparison
The Undergraduate Experience at Michigan Survey Instruments (Entrance and Second Year)
Preparing College Students for a Diverse Democracy Survey Instruments (Entrance and Second Year)

Survey	Survey Wave	Variable	Variable Type	Scale Range
MSS	1st year survey	Attitudes of LGBT persons T1	Scaled index, three items	1=Strongly agree to 4=Strongly disagree
DivDemo	1st year survey	Attitudes of LGBT persons T1	Scaled index, three items	1=Strongly disagree to 4=Strongly agree
MSS	2nd year survey	Attitudes of LGBT persons T2	Scaled index, three items	1=Strongly agree to 4=Strongly disagree
DivDemo	2nd year survey	Attitudes of LGBT persons T2	Scaled index, three items	1=Strongly disagree to 4=Strongly agree
MSS	1 st year survey	Attitudes of racial diversity T1	Scaled index, three items	1=Strongly agree to 4=Strongly disagree
DivDemo	1 st year survey	Attitudes of racial diversity T1	Scaled index, three items	1=Strongly disagree to 4=Strongly agree
MSS	2 nd year survey	Attitudes of racial diversity T2	Scaled index, four items	1=Strongly agree to 4=Strongly disagree
DivDemo	2 nd year survey	Attitudes of racial diversity T2	Scaled index, four items	1=Strongly disagree to 4=Strongly agree
1.600	1 of		D: 1	1 1 1 1 2 7 1
MSS	1 st year survey	Gender	Dichotomous	1=Male, 2=Female
DivDemo	1 st year survey	Gender	Dummy-coded	1=Male, 2=Female
MSS	1 st year survey	Race/Ethnicity	Single-item, nominal	1= African American/Black, 2= Asian American/Asian, 3=Hispanic/Latino, 4=Native American/American Indian, 5=White/Caucasian (non-Hispanic)
DivDemo	1st year survey	Race/Ethnicity	Dummy-coded	Native American, African Americans, Asian, Latino/as, White
MSS	1 st year survey	Family Socioeconomic Status (SES)	Single-item, continuous	Mother's Education (1=1-8 years high school to 7=Doctorate or professional)

DivDemo	1 st year survey	Family Socioeconomic Status (SES)	Single-item, continuous	Mother's Education (1=Some high school to 6=Doctorate or professional)
MSS	Institutional records	Student Aptitude (SAT)	Single-item, continuous	Composite SAT score or converted ACT score (400-1600 scale)
DivDemo	Institutional Records	Student Aptitude (SAT)	Single-item, continuous	Composite SAT score or converted ACT score (400-1600 scale)
MSS	1 st year survey	How religious are you?	Single-item, continuous	1=Very religious to 4=Not at all religious
DivDemo	1 st year survey	How frequently did you participate in religious activities or spiritual ceremonies	Reverse-coded, Single-item, continuous	1=Never to 5=Daily
MSS	1 st year survey	How would you describe the racial composition of the neighborhood where you grew up and the HS you attended	Scaled index, two items	1=All or nearly all White to 5=All or nearly all people of color
DivDemo	1 st year survey	How would you describe the racial composition of the neighborhood where you grew up and the HS that you graduated from	Reverse-coded, Scaled index, two items	1= All or nearly all White to 5=All or nearly all people of color
MSS	1 st year survey	Getting to know people from backgrounds different from my own	Reverse-coded, Single-item, continuous	1= Not at all important to 5=Of crucial importance
DivDemo	1 st year survey	Likely to make efforts to get to know individuals from diverse backgrounds	Single-item, continuous	1=Very unlikely to seek 4=Very likely to seek
MSS	2 nd year survey	How much have you been exposed to information and activities devoted to understanding other racial/ethnic groups and inter-racial-ethnic	Single-item, continuous	1=Not at all to 5=A great deal

relationships: In course readings, lectures, and discussions about course readings, lectures, and discussions? DivDemo 2 nd year survey How many courses have you enrolled in that included materials/readings on race and ethnicity issues	Single-item, continuous	1=none to 4=three or more
---	-------------------------	---------------------------

MSS	2 nd year survey	Despite our concern over racial injustice, colleges and universities do not have primary responsibility to correct the situation	Reverse-coded; Single-item, continuous	1= Strongly disagree to 4=Strongly agree
DivDemo	2nd year survey	Colleges do not have a responsibility to correct racial /ethnic injustice	Single-item, continuous	1=Strongly oppose to 4=Strongly support
DivDemo	2 nd year survey	Campus diversity experiences (co-curricular)	Scaled index, seven-items	1=Never to 5=Very often
MSS	2 nd year survey	Participated in diversity workshops	Reverse-coded; Single-item,	1=No, have not participated to 3=Yes, have
WISS	2 year survey	Tarticipated in diversity workshops	continuous	participated
DivDemo	2 nd year survey	Participated in diversity workshops	Single-item, continuous	1=Never to 4=Very often
MSS	2 nd year survey	What is the extent to which you interact with students from each of the following (racial) groups	Single-item, continuous	1=No interaction to 5=The most interaction
DivDemo	2 nd year survey	How much interaction have you had with people in each of the following (racial) groups in college	Single-item, continuous	1=No interaction to 4=Substantial interaction
MSS	Ø			
DivDemo	2 nd year survey	How much interaction have you had with gay/lesbian/bisexual individuals in college	Single-item, continuous	1=No interaction to 4=Substantial interaction
MSS	2 nd year survey	Since entering college, to what extent have you been involved in religious clubs and activities	Reverse-coded; Single-item, continuous	1= Substantially involved to 4=Not at all involved
DivDemo	2 nd year survey	Since coming to the University, how often have you participated in religious or spiritual activities	Single-item, continuous	1=Often to 4=Never

Appendix C: Factor Loadings and Reliabilities for Dependent and Independent Variables

Factor Items	Factor Loadings
	- 3000 2000000
Attitudes about LGBT Persons—Time 1 (alpha)	(.820)
If I found out someone I knew was gay, lesbian, or bisexual, I'd be accepting and supportive	.942
Romantic relationships between people of the same gender are as acceptable as they are for heterosexuals couples	.696
I would probably not be able to continue my friendship with a friend who I discovered was homosexual	.719
Attitudes about LGBT Persons—Time 2 (alpha)	(.832)
If I found out someone I knew was gay, lesbian, or bisexual, I'd be accepting and supportive	.920
Romantic relationships between people of the same gender are as acceptable as they are for heterosexuals couples	.739
I would probably not be able to continue my friendship with a friend who I discovered was homosexual	.753
Attitudes about race/ethnicity—Time 1 (alpha)	(.641)
Our society has done enough to promote the welfare of different racial/ethnic groups (Reverse-coded)	.615
A person's racial background in this society does not interfere with achieving everything he or she wants to achieve	.627
The system prevents people of color from getting their fair share of good jobs and better pay	.590
Attitudes about race/ethnicity —Time 2 (alpha)	(.730)
Our society has done enough to promote the welfare of different racial/ethnic groups	.745
A person's racial background in this society does not interfere with achieving everything he or she wants to achieve	.658
The system prevents people of color from getting their fair share of good jobs and better pay	.666
Racial composition (alpha)	(.771)
Racial composition of high school	.792
Racial composition of neighborhood where grew up	.792
Informal campus experiences across race (co-curricular) (alpha)	(.890)
Dined or shared a meal	.729
Had meaningful and honest discussions Shared personal feelings and problems	.762 .767
Studied or prepared for class	.731
Socialized or partied	.766
Had intellectual discussions outside of class	.865
Attended events sponsored by other race/ethnic groups	.514

Appendix D: Covariance Matrix for Structural Equation Modeling Analyses

	source01	female	ewhite	MomEd	SAT	RET1	SOT1	ReligT1	HSDiv	Wantdiv
source01	0.2479278	-0.0123571	0.0088049	0.0265553	20.038427	-0.0515346	0.2034355	0.0469112	0.0173157	0.0162731
female	-0.0123571	0.2500394	-0.0020921	0.0050961	-14.715762	0.0279826	0.1108322	-0.0048241	0.0148634	0.069353
ewhite	0.0088049	-0.0020921	0.2078721	0.0145689	16.858653	-0.1020654	0.0204443	0.027476	-0.1663873	-0.0370057
momed	0.0265553	0.0050961	0.0145689	1.2999239	35.993692	0.0928951	0.0972657	0.0350056	-0.0267782	0.0559276
sat	20.038427	-14.715762	16.858653	35.993692	23044.908	-9.1973998	25.409329	21.064416	-27.811033	-7.3724291
RET1	-0.0515346	0.0279826	-0.1020654	0.0928951	-9.1973998	0.7047171	0.1008972	0.0004192	0.1501984	0.1139323
SOT1	0.2034355	0.1108322	0.0204443	0.0972657	25.409329	0.1008972	0.967145	0.2218343	0.0401963	0.1739551
religT1	0.0469112	-0.0048241	0.027476	0.0350056	21.064416	0.0004192	0.2218343	0.8591189	-0.0019865	-0.0381693
HSDIV	0.0173157	0.0148634	-0.1663873	-0.0267782	-27.811033	0.1501984	0.0401963	-0.0019865	0.7719183	0.0577382
wantdiv	0.0162731	0.069353	-0.0370057	0.0559276	-7.3724291	0.1139323	0.1739551	-0.0381693	0.0577382	0.5908414
divshop	-0.0873678	0.0253491	-0.004692	-0.0144546	-7.0193124	0.0492315	-0.0402769	-0.0342886	0.025048	0.0374991
redoMISSION	0.0567786	0.0702959	-0.0657844	0.0346515	-8.2768324	0.1625052	0.1846663	-0.0076056	0.10257	0.1420573
DIVCURR	-0.0679971	0.0752571	-0.006499	0.0224099	-19.701453	0.0997017	0.0268175	-0.0565515	0.0452788	0.0873753
RET2	-0.0177731	0.059372	-0.1157815	0.1116869	-17.720466	0.3993235	0.1282363	-0.0225783	0.1835981	0.1586388
SOT2	0.1503226	0.111077	0.0293797	0.1009269	22.491001	0.0819286	0.6637353	0.2019639	0.0216871	0.1545888

Appendix D. Covariance Matrix for Structural Equation Modeling Analyses (Continued)

	Divshop	Mission	DivCourse	RET2	SOT2	
source01	-0.06803	0.034589	-0.16624	-0.053909	-0.02889	0.113093
female	0.025159	0.072312	-0.01995	0.0730767	0.072296	0.108856
ewhite	-0.00436	-0.07217	-0.00322	-0.0066589	-0.12366	0.030461
MomEd	-0.014	0.035727	-0.09129	0.0211174	0.114152	0.104448
SAT	-7.46447	-13.8783	-14.8334	-21.1596776	-26.593	21.75241
RET1	0.047526	0.156322	0.056258	0.0937953	0.385988	0.079773
SOT1	-0.03888	0.180083	-0.01497	0.0267322	0.127582	0.642835
ReligT1	-0.03284	-0.00685	0.376717	-0.0531592	-0.0203	0.191301
HSDiv	0.024445	0.103823	-0.0529	0.0467144	0.182591	0.019035
Wantdiv	0.039476	0.14695	-0.05201	0.0879545	0.165982	0.159558
IntergayT1	0.05996	0.10039	0.04748	0.1235305	0.131115	0.364424
DivInteractn	0.123076	0.1374	-0.07157	0.1244771	0.118261	0.24103
IntergayT2	0.065866	0.104306	0.000205	0.1425317	0.080847	0.387994
Divshop	0.249969	0.01436	0.040315	0.081965	0.054292	0.004687
Mission	0.01436	0.6482	-0.04941	0.0961463	0.27979	0.18287
ReligT2	0.040315	-0.04941	1.08959	0.0136947	0.038419	0.034319
DivCourse	0.081965	0.096146	0.013695	0.9957341	0.195292	0.055814
RET2	0.054292	0.27979	0.038419	0.1952917	0.736941	0.151115
SOT2	0.004687	0.18287	0.034319	0.0558141	0.151115	0.888648

Appendix E: Covariance Matrix for Structural Equation Modeling Analyses: Michigan Student Study, 1990-1992

	female	ewhite	MomEd	SAT	RET1	SOT1	ReligT1	HSDiv	Wantdiv	Divshop
female	0.2501287	0.00249	0.0030133	-17.852314	0.0044905	0.1230917	0.0021606	0.0151998	0.0574112	0.0240101
ewhite	0.00249	0.2143534	-0.0040002	19.451566	-0.0955949	-0.0219397	0.0298242	-0.1857354	-0.0473986	0.0257921
momed	0.0030133	-0.0040002	1.3438326	43.210247	0.1151301	0.0632223	0.0868377	-0.0158164	0.0339528	-0.0187303
SAT	-17.852314	19.451566	43.210247	25038.626	-6.1250529	8.3898916	25.730649	-36.609814	-10.961415	5.3991457
RET1	0.0044905	-0.0955949	0.1151301	-6.1250529	0.6288922	0.1307306	0.0002323	0.153874	0.1265534	-0.0060802
SOT1	0.1230917	-0.0219397	0.0632223	8.3898916	0.1307306	0.7427226	0.107768	0.0805223	0.1499091	0.0362824
religT1	0.0021606	0.0298242	0.0868377	25.730649	0.0002323	0.107768	0.6723201	-0.0325534	-0.0172571	-0.0173755
HSDIV	0.0151998	-0.1857354	-0.0158164	-36.609814	0.153874	0.0805223	-0.0325534	0.8082841	0.0641816	0.0023157
wantdiv	0.0574112	-0.0473986	0.0339528	-10.961415	0.1265534	0.1499091	-0.0172571	0.0641816	0.6230139	0.0197765
divshop	0.0240101	0.0257921	-0.0187303	5.3991457	-0.0060802	0.0362824	-0.0173755	0.0023157	0.0197765	0.2251887
MISSION	0.0770101	-0.0837319	0.0217223	-20.305053	0.1824613	0.1393556	0.0207311	0.1185876	0.1254238	0.0109778
DivCourse	0.0510119	0.0090383	0.0068488	-8.7974409	0.0491805	0.0856125	-0.0246441	0.0467099	0.0553856	0.0454843
RET2	0.0504332	-0.1204588	0.1349776	-21.615664	0.3743192	0.1472048	0.01312	0.2202631	0.1545554	0.0182602
SOT2	0.1231339	0.0202992	0.0799511	10.838	0.0867521	0.4976097	0.1015624	0.031466	0.1218839	0.0585518

Appendix E: Covariance Matrix for Structural Equation Modeling Analyses: Michigan Student Study, 1990-1992 (continued)

	Mission	DivCourse	RET2	SOT2
female	0.0770101	0.0510119	0.0504332	0.1231339
ewhite	-0.0837319	0.0090383	-0.1204588	0.0202992
momed	0.0217223	0.0068488	0.1349776	0.0799511
SAT	-20.305053	-8.7974409	-21.615664	10.838
RET1	0.1824613	0.0491805	0.3743192	0.0867521
SOT1	0.1393556	0.0856125	0.1472048	0.4976097
religT1	0.0207311	-0.0246441	0.01312	0.1015624
HSDIV	0.1185876	0.0467099	0.2202631	0.031466
wantdiv	0.1254238	0.0553856	0.1545554	0.1218839
divshop	0.0109778	0.0454843	0.0182602	0.0585518
MISSION	0.6270467	0.0988799	0.2833044	0.1633651
DivCourse	0.0988799	0.8927663	0.1158654	0.1054853
RET2	0.2833044	0.1158654	0.672461	0.1747399
SOT2	0.1633651	0.1054853	0.1747399	0.7893121

Appendix F: Covariance Matrix for Structural Equation Modeling Analyses: Diverse Democracy, 2000-2002

	female	ewhite	MomEd	SAT	RET1	SOT1	ReligT1	HSDiv	Wantdiv	Divshop
female	0.2489046	-0.0066527	0.01053	-8.7148286	0.0496292	0.1195997	-0.0081441	0.0164212	0.0855481	0.0185622
ewhite	-0.0066527	0.1996697	0.0349754	12.222579	-0.1057496	0.0518608	0.020953	-0.1452186	-0.0256412	-0.0268433
momed	0.01053	0.0349754	1.2420798	22.743395	0.080036	0.088649	-0.0396439	-0.0432757	0.0786151	0.002953
sat	-8.7148286	12.222579	22.743395	17097.017	-3.7754302	9.5579295	7.2041785	-20.644789	-5.9314302	-5.7199528
RET1	0.0496292	-0.1057496	0.080036	-3.7754302	0.7698001	0.1509019	0.0219895	0.156426	0.1085576	0.0694616
SOT1	0.1195997	0.0518608	0.088649	9.5579295	0.1509019	0.8658755	0.2676917	-0.0350305	0.1674112	0.0218107
religT1	-0.0081441	0.020953	-0.0396439	7.2041785	0.0219895	0.2676917	1.0664888	0.027151	-0.0695824	-0.0170291
HSDIV	0.0164212	-0.1452186	-0.0432757	-20.644789	0.156426	-0.0350305	0.027151	0.7276376	0.0476281	0.0574398
wantdiv	0.0855481	-0.0256412	0.0786151	-5.9314302	0.1085576	0.1674112	-0.0695824	0.0476281	0.5502196	0.0627045
divshop	0.0185622	-0.0268433	0.002953	-5.7199528	0.0694616	0.0218107	-0.0170291	0.0574398	0.0627045	0.2132124
MISSION	0.0667467	-0.0495242	0.0359148	-3.6206274	0.167239	0.1379056	-0.0660523	0.0751096	0.1537064	0.0493054
DIVCURR	0.0990119	-0.0196525	0.0576112	-21.408998	0.1292836	0.0719298	-0.0686305	0.0558085	0.1372827	0.0641488
RET2	0.0681424	-0.1087285	0.0880111	-9.9613701	0.4220658	0.1352057	-0.0582821	0.1440496	0.1660896	0.0907906
SOT2	0.1112994	0.0269407	0.0883383	11.028486	0.1437307	0.5899971	0.2606595	-0.0114007	0.1692041	0.0480397

Appendix F. Covariance Matrix for Structural Equation Modeling Analyses: Diverse Democracy, 2000-2002 (Continued)

	Mission	DivCourse	RET2	SOT2
female	0.0667467	0.0990119	0.0681424	0.1112994
ewhite	-0.0495242	-0.0196525	-0.1087285	0.0269407
momed	0.0359148	0.0576112	0.0880111	0.0883383
sat	-3.6206274	-21.408998	-9.9613701	11.028486
RET1	0.167239	0.1292836	0.4220658	0.1437307
SOT1	0.1379056	0.0719298	0.1352057	0.5899971
religT1	-0.0660523	-0.0686305	-0.0582821	0.2606595
HSDIV	0.0751096	0.0558085	0.1440496	-0.0114007
wantdiv	0.1537064	0.1372827	0.1660896	0.1692041
divshop	0.0493054	0.0641488	0.0907906	0.0480397
MISSION	0.6251521	0.107778	0.2469994	0.1182716
DIVCURR	0.107778	1.1301872	0.3045133	0.0979817
RET2	0.2469994	0.3045133	0.7737883	0.1470922
SOT2	0.1182716	0.0979817	0.1470922	0.8087282

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