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SERU Project and Consortium Research Paper\*

**DIVERSITY MATTERS:**  
**New Directions for Institutional Research on Undergraduate Racial/Ethnic and Economic Diversity**  
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**ABSTRACT**

This paper reviews the new directions in institutional research on undergraduate racial/ethnic and socioeconomic diversity at the University of California, Berkeley. The use of SERU/UCUES and other web-based census surveys has made possible more detailed and extensive analysis of student diversity. Included is research on an expanded number of racial/ethnic groups and on multiracial students, the significance of the African American experience, implications of the new IPEDS racial/ethnic reporting requirements, and a closer examination of Pell Grant and first-generation college students. UCUES survey results are used to development a more comprehensive parental education and immigrant generation diversity (EID) typology that is then used to examine the interrelationships among student demographics and various facets of the undergraduate academic experience. Finally, an analysis of student accounts of the experience of diversity at Berkeley provides an example of how web-based census surveys afford new opportunities for cost-effective qualitative diversity research.

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The rating of the racial/ethnic and economic diversity of universities on the basis of their distribution of African American, Asian, Latino, and white students and Pell Grant recipients, respectively, continues to increase in prominence (Gerald & Haycock, 2005; Institute for College Access & Success, 2009; US News & World Report, 2009; Washington Monthly, 2009). These categories provide a useful but limited understanding of the true racial/ethnic and socioeconomic diversity of undergraduate student populations in the United States. On the other hand, with the ability to conduct extremely cost-effective web-based surveys, institutional researchers are now able to generate substantial new knowledge, not just interpret and report existing institutional data (Thomson, 2010). Informed by an appreciation for changing student demographics, we now have the ability to generate much more complex and nuanced information about student diversity than that provided by the national reporting schemes.

The University of California, Berkeley has a history of important diversity policy analysis, e.g., the "Kabel Report" (Senate Committee on Admissions and Enrollment, 1989) and innovative research on student diversity, e.g., the "Duster Report" (Institute for the Study of Social Change, 1991); strong administrative support for institutional research on undergraduate student diversity; and an exceptionally diverse undergraduate student population. It is in this environment that Berkeley's Office of Student Research and Campus Surveys has advanced institutional diversity research in several directions.

First, we have expanded the number of race/ethnic and economic categories and examined them in much greater detail than is customarily done in institutional research. Second, while remaining cognizant of the importance of the African American experience in higher education, we have developed a broader conceptual framework for student diversity, one that moves beyond an exclusive focus on minority status and minority /non-minority comparisons. Third, we have recognized that web-based open-ended questions provide unprecedented cost-effective opportunities to broaden significantly our understanding of diversity through qualitative as well as quantitative analysis.

**RACE/ETHNICITY AND CENSUS SURVEYS**

The combination of an expanded list of racial/ethnic categories, census design web-based surveys, and the technique of pooling results across a number of years has produced much more detailed knowledge about racial and ethnic diversity than previously

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available (Ellis & Thomson, 2008). Using twenty-five racial/ethnic categories and combining results from four annual surveys (average response rate of 67%) of new Berkeley freshman (2004-2007) provided more than ten thousand survey responses. Not counting multiethnic students (discussed below) and collapsing the smallest groups, this approach yields more than two hundred respondents for each of twelve racial/ethnic groups rather than the customary four. Eight additional racial/ethnic categories have smaller numbers of respondents.

These groups differ significantly in terms of parental education and income, first language, immigration generation, religious affiliation, other demographics. Some of the largest differences in backgrounds are observed across groups (e.g., Vietnamese, Korean, South Asian) that are customarily combined into "Asian". Other critical distinctions can be drawn, for example, by disaggregating "white" as defined in official campus statistics into white, Middle Eastern and recent Eastern European immigrant.

TABLE 1  
Number of New Freshman Respondents by Ethnicity: 2004-2007 Survey Results Combined

White	3243	African American	232
Chinese	2809	Japanese	207
Chicano	681	Other	150
Korean	620	Other Latino	146
South Asian	474	Salvadoran	85
Vietnamese	386	Pacific Islander	40
Filipino	368	African American Immigrant	33
Eastern European Immigrant	304	Cambodian	29
Middle Eastern	259	Nicaraguan	20
Other Asian	256	American Indian	19

Note: Multiracial respondents not included.

Source: Ellis & Thomson (2008)

TABLE 2  
Four Concerns of New Freshman Ordered by Ethnicity from Highest to Lowest Percent "Very Concerned": 2004-2007 Survey Results Combined

CONCERN	Maintain a Good GPA	Being Overwhelmed	Advising	Finances
Average "Very Concerned"	68%	50%	43%	39%
RANK (FROM MOST CONCERNED TO LEAST CONCERNED)				
Filipino	1	1	1	2
Chicano	6	3	4	1
Vietnamese	3	2	7	4
Latino	7	5	2	3
South Asian	2	7	3	10
Chinese	4	4	5	9
Korean	5	8	6	6
African American	11	9	9	5
Japanese	8	6	10	11
Middle Eastern	9	11	8	7
Eastern European Immigrant	10	10	11	8
White	12	12	12	12

Source: Ellis & Thomson (2008)

There are significant differences across racial/ethnic groups in the extent to which new freshmen express concerns about the challenges of university life. Non-immigrant white freshmen have the smallest percentage across twelve ethnic groups saying they are "very concerned" about each of the following: maintaining good grades, being overwhelmed, obtaining good advising, and being able to finance their education. At the other extreme, Filipino freshmen are more than twice as likely as white freshmen to

say they are “very concerned” about each of these four areas. Table 2 orders racial/ethnic freshmen categories by the percent of each group indicating concern for these four areas.

The expanded number of racial/ethnic groups identified with census design surveys can then be linked longitudinally to institutional student outcome data. For example, first-year academic probation rates for the twelve freshmen groups profiled here range from one percent to thirteen percent.

### INSTITUTIONAL RESEARCH AND MULTI-RACIAL STUDENTS

Multi-racial individuals are the fastest growing population group in the United States (Yen, 2009), and there is growing institutional research interest in multi-racial students (as well as the new IPEDS reporting requirement). Existing research on multi-racial college students is largely limited to qualitative studies with small samples of students and often involving a single heritage combination (Renn, 2004, 2008). In the study described above, UC Berkeley freshmen were given the opportunity to indicate multiple racial/ethnic identities. Using the expanded list of twenty-five categories, 14% of Berkeley freshmen chose two categories (Thomson, 2007; Ellis & Thomson, 2008). With nearly fifteen hundred multiethnic/multiracial students there are expanded opportunities for quantitative research in this dimension of student diversity (Thomson, 2011).

TABLE 3

Twenty Most Frequent Multiracial Combinations: New UC Berkeley Freshmen 2004-2007

1	Chinese and White
2	Eastern European Immigrant and White
3	Vietnamese and Chinese
4	Japanese and White
5	Chicano and White
6	Middle Eastern and White
7	Japanese and White
8	White and Other
9	American Indian and White
10	African American and White
11	Filipino and Chinese
12	Filipino and White
13	Korean and White
14	South Asian and White
15	Chinese and Other Asian
16	South American and White
17	White and Other Latin American
18	Chicano and Salvadoran
19	Middle Eastern and Eastern European Immigrant
20	Korean and Chinese

TABLE 4

Ethnic Groups with the Lowest and Highest Multiracial Proportions for New 2004-2007 UC Berkeley Freshmen (%)

LOWEST		HIGHEST	
South Asian	5	American Indian	75
Korean	5	Other Latino	40
African American	7	Pacific Islander	38
Chinese	8	Cambodian	37
White	9	Eastern European Immigrant	33
Nicaraguan	9	Japanese	31

Source: Ellis & Thomson (2008)

The list of twenty most frequent multiracial combinations demonstrates “diversity within diversity”, that is, multiracial students themselves are extremely diverse. The proportion of students indicating a given race/ethnicity that also indicates a second race/ethnicity provides a different perspective of multiracial student identity. As shown in Table 4, the rate is as low as 5% for some groups (Korean, South Asian) and over 30% for others (Latino, Japanese, Pacific Islander). The vast majority (75%) of students who indicate an American Indian heritage do so in combination with another race.

### **THE NEW IPEDS RACE AND ETHNICITY REPORTING REQUIREMENTS**

Institutional researchers are all too familiar with the new IPEDS reporting requirements for race and ethnicity, specifically the two-question format that defines Latino/Hispanic as an ethnicity and the use of the “two or more races” category for students who choose more than one of the following races: American Indian, African American, Asian, Pacific Islander, and white. Concern about this new format has focused on the problematic nature of the multiracial category (e.g., Broh and Minicucci, 2008). Institutional research at Berkeley (Thomson, 2007) on the impact of the new multiracial reporting requirements is consistent with these concerns. Use of the multiracial category has a significant and disproportionate impact on the percentage representation of particular racial/ethnic groups, e.g., African American. Given the two-question format and broad categories, only a small proportion of UC Berkeley students who identify as multiethnic or multiracial would be classified as multiracial by the IPEDS scheme (Thomson, 2007). Moreover, the vast majority of University of California multiracial students, while wanting recognition of their multiple heritages, do not want to be simply classified as “multiracial” (Thomson, 2003).

However, given the demographics of California where, for example, more than a half of all students in California K-12 public schools are Latino, the more obvious problem is the two-question ethnicity and race format. The distinction between Latino/Hispanic ethnicity and the five designated racial categories has no sociological or anthropological basis (American Anthropological Association, 1997). Excluding Latino as a racial category has been political rather than scientific, ranging from the requirement that early 20<sup>th</sup> century Census enumerators count Mexican Americans as white regardless of expressed self-identification to the partisan calculations involving OMB’s Directive 15 and the advantages of encouraging Latinos to identify as white (Hattam, 1995). The vast majority of Latinos in California do not identify as white (Tafoya, 2003). Nationally, only 16% of young Latinos choose “white” when asked the US Census question “What race do you consider yourself to be: white, black or African-American, Asian, or some other race?” (Pew Research Center, 2009).

On the US Census the “safety valve” for not having Latino as a racial category is “Some Other” race; it is the de facto Latino category. On the 2000 Census 97% of those indicating other race are Latino (U.S. Census Bureau, 2001). However, the new IPEDS format explicitly eliminates “Other” as an option, forcing Latino students to either choose a race that they do not identify with or to fail to comply with the instructions and leave the item blank.

Given that the procrustean IPEDS format is flawed and cannot provide the institutional data to meet its own obligations as a public university, the University of California has devised an innovative solution. With the explanation that “The University is required by the U.S. Department of Education to ask you to answer the following two questions,” applicants are first presented with the IPEDS items. Then “For University of California purposes, to help us understand the diverse racial and ethnic backgrounds of our students,” applicants are asked to respond to an entire separate racial/ethnic question. The UC format encourages applicants to make multiple choices, as appropriate, from an extensive list of more than forty racial/ethnic terms organized by major racial categories. For example, for Pacific Islander the choices include Fijian, Guamanian/Chamorro, Hawaiian, Samoan, Tongan, and Other Pacific Islander. There are plans to expand even further the number of racial/ethnic categories with programming that takes advantage of the exclusively on-line application. Because the University of California is able to make a fundamental distinction between data required for federal reporting requirements and data that is important to collect as a public university in an extraordinarily diverse state, UC institutional researchers will have both the opportunity and challenge to report on and understand the dynamics of undergraduate racial/ethnic diversity at an unprecedented level of detail and complexity.

### **ECONOMIC DIVERSITY: THE POPULARITY OF PELL**

Institutional research on socioeconomic diversity and how it affects the undergraduate experience has not been as extensive as research on racial/ethnic diversity. However, recently the percentage of Pell Grant recipients in the undergraduate enrolled population has become a well-publicized measure of economic diversity by which institutions can be ranked and compared. The Higher Education Opportunity Act of 2008 requires that institutions publish Pell recipient graduation rates. Yet there has been almost no quantitative investigation of the actual undergraduate experience of Pell recipients. We now have initial research on the experience of Pell undergraduates at Berkeley (Thomson & Kunitz, 2007) and across the University of California system (Douglass & Thomson, 2008) that suggests the quality of undergraduate life for Pell students is significantly more positive than is typically surmised. Based on census design survey responses of several thousand Pell recipients at Berkeley and more than

fifteen thousand Pell recipients across the University of California, Pell students generally rate their experiences, e.g., with advising, as satisfactory as that of their more affluent peers.

With the increasing focus on Pell Grant recipients, institutional researchers will become more aware of several considerations in their use of it as a key measure of economic diversity. For example, the way in which Pell percentages are typically calculated and reported is slightly inaccurate: the numerator is the total number of students awarded Pell grants for the academic year; the denominator is the total fall term enrollment (US News and World Report, 2009). For institutions with a significant number of students entering in a term other than fall, the Pell percentage typically cited is too high.

The Washington Monthly's college ranking measure involving an institution's Pell percentage contains an additional bias. Universities are ranked on actual freshman scores relative to predicted scores with the overall institutional Pell numbers both as an outcome (the higher the SAT scores, the lower the Pell percentage) and as a predictor (the higher the Pell percentage, the lower the graduation rate). Therefore, rankings for institutions such as UC Berkeley with large numbers of community college transfers and a transfer Pell rate almost twice as the freshman rate are biased in the positive direction.

TABLE 5  
Parental Education and Graduation Rates for UC Berkeley  
2003 Freshmen Pell Grant Recipients by Ethnicity (%)

	Parent College Degree	Four-Year Graduation Rate	(N)
Chicano	9	44	(158)
Vietnamese	13	60	(98)
Latino	26	53	(43)
Chinese	31	73	(217)
African American	33	40	(63)
Filipino	59	66	(32)
South Asian	65	83	(23)
White	66	65	(150)
Korean	68	71	(84)
Total	38	62	(946)

Source: Thomson (2009b)

There also tends to be a misconception about the socioeconomic homogeneity of the Pell Grant population; that is, Pell recipients are sometimes assumed to be almost all very low-income "first-generation" college students. At the University of California, however, nearly one in three of all Pell recipients have at least one-parent with a four-year college degree (Douglass & Thomson, 2008). In a recent freshman class at Berkeley this was the case for nearly 40% of the Pell recipients. For Korean, White, South Asian, and Filipino students the figure is substantially higher than fifty percent. Educational capital matters: the four-year graduation rate for Pell freshman from college-educated families is much higher than for first-generation Pell freshmen and in fact exceeds that of non-Pell freshmen (Thomson, 2009b).

In contrast to institutional research on Pell students, there have been a number of studies of "first-generation" college students. However, "first-generation" has been defined variously in research studies as (a) neither parent having any college experience or attendance (Pascarella et al. 2004; Terenzini et al, 1996), (b) neither parent having a four-year college degree (Martinez et al., 2009; Pike & Kuh, 2006), or (c) "students whose parents have not attended college and/or have not earned a college degree" (Engle et al., 2006, page 13) when summarizing this research. Another variation is "first-generation and low-income" (Engle and Tinto, 2008). Moreover, there is often confusion and miscommunication about "first-generation" college institutional statistics. For example, it is not uncommon for administrators to refer to the number of students at their institution who are "the first in their family to attend college" when the figure really represents the number of students with parents without four-year degree attainment.

At UC Berkeley, the difference between no college experience and no four-year degree attainment is important both numerically and substantively. A significant percentage of “first-generation” students as defined by the latter have parents with community college degrees and/or four-year college experience, and these students differ (e.g., by race/ethnicity, immigrant status and undergraduate outcomes) from those students whose parents have no college experience. With more extensive data now available, institutional researchers can and should incorporate several of these distinctions (Pell, parents with no college experience, parents with no degree attainment, low income) into their study designs rather than being limited to a single one of these binary categories.

There is another more fundamental way in which institutional researchers can move beyond the customary categories in studying socioeconomic diversity. Regardless of how “first-generation” undergraduates have been defined, the characteristics or experiences of these students have been compared to all other students, variously referred to as “second-generation” or “traditional” students. However “second-generation” students vary significantly in terms of cultural (Bourdieu, 1986) and academic capital (Barratt, 2005; Bradley, 2009). There have been surprisingly few studies (such as Walpole, 2003) that use general socioeconomic measures of student origin. Little attention has been paid to the dynamics of socioeconomic advantage analogous to the recognition of white privilege (Macintosh, 1988) and the study of white racial identity (Helms, 1990).

Administered annually at UC Berkeley and biennially at all other undergraduate UC campuses, the census design University of California Undergraduate Experience Survey (UCUES) encourages a broader approach to measuring and studying socioeconomic diversity. Eight additional leading public universities—Florida, Michigan, Minnesota, North Carolina, Oregon, Pittsburgh, Rutgers, and Texas—use the Student Experience in the Research University (SERU) version of the survey as members of the AAU SERU Consortium.<sup>1</sup>

Therefore, rather than using the first-generation versus non-first-generation dichotomy, six levels of parental education were calculated for the spring 2007 Berkeley UCUES (n=11,957, 51% response rate), as seen in Table 6.

These results demonstrate the significant diversity across the cultural capital spectrum that characterizes undergraduates at a selective public research university like UC Berkeley. Especially striking is the representation at the upper end of the educational spectrum. There are as many instances of students with both parents having a post-baccalaureate degree as there are where one parent has a four-year degree.

#### THE EDUCATION-IMMIGRATION DIVERSITY TYPOLOGY

A second important dimension of diversity that describes University of California undergraduates is immigrant generation. For a decade now UC Berkeley institution research has documented that a majority of Berkeley undergraduates are either first or second-generation immigrants, reflecting the fundamental demographic shift in California after the Immigration and Nationality Act of 1965. More recent UCUES results confirm this is true for the University of California overall (Douglass, Roebken, & Thomson, 2007; Douglass & Thomson, 2010).

The distribution of immigrant generation for Berkeley 2007 UCUES respondents is shown in Table 7. More than 40% of all UC Berkeley are second-generation immigrant. About a quarter is first-generation and another quarter is fourth-generation or higher. Few are third-generation, that is, have grandparents who immigrated to the United States, reflecting the forty years of immigration restrictions following the Immigration Act of 1924.

TABLE 6

Highest Level of Parents' Education (%): All Enrolled UC Berkeley Undergraduates, Spring 2007

LEVEL OF PARENTAL EDUCATION	%	N
1A. No College Experience	18	1964
1B. One/Both Parents Some College	10	1106
2A. One Parent College Degree	14	1489
2B. Both Parents College Degrees	18	1967
3A. One Parent Graduate Degree	25	2704
3B. Both Parents Graduate Degrees	14	1555

Source: Thomson (2008, 2009a)

TABLE 7  
Immigration Generation (%): All Enrolled UC Berkeley Undergraduates, Spring 2007

	IMMIGRANT GENERATION	%	N
Gen 1.0	Not Born-Recent Immigrant	7	801
Gen 1.5	Not Born-USA by Age 13	16	1694
Gen 2.0	Both Parents Not Born USA	32	3499
Gen 2.5	One Parent Not Born USA	10	1038
Gen 3.0	No Grandparents Born USA	2	213
Gen 3.5	Two Grandparents Born USA	9	962
Gen 4.0	All Grandparents Born in USA	24	2578

Source: Thomson (2008, 2009a)

TABLE 8  
Distribution of Spring 2007 UC Berkeley Undergraduates By Immigration Generation and Parental Education Level (%)

PARENT EDUCATION	IMMIGRANT GENERATION		
	First	Second	Third+
No College Degree	8	12	8
College Degree(s)	6	11	15
One Grad Degree	6	11	8
Both Grad Degrees	4	8	3

Source: Thomson (2008, 2009a)

The parental education and immigrant generation dimensions are largely uncorrelated and can be combined to provide an Education-Immigration Diversity (EID) typology. This provides a very useful framework by which to assess student diversity and its correlates. Table 8 presents a twelve-cell version of EID (three immigrant generations X four levels of parental education). In this version the distinction between the two highest levels of parental education is retained in order to be able to examine in more detail socioeconomic and its relationship to the undergraduate experience.

It is striking that parent education and immigrant generation dimensions are large uncorrelated and there is a fair degree of representation in all cells of the table. The cell with the fewest students is the Third+ Generation + Both Parents Grad Degrees combination. As is shown in Table 9, students of recent immigrant origin are more likely to have at least one parent with a graduate degree. Students who are not of recent immigrant origin are more likely to have parents whose highest level of education is a four-year college degree.

#### CORRELATES OF EDUCATION-IMMIGRATION DIVERSITY

Community college transfers (about twenty per cent of all enrolled undergraduates) are significantly more likely to be either first or third/fourth immigrant generation students from low parental education families and significantly less likely to be second

TABLE 9  
Distribution of Spring 2007 UC Berkeley Undergraduates by Parental Education Level within Immigration Generation (%)

PARENT EDUCATION	IMMIGRANT GENERATION		
	First	Second	Third+
No College Degree	33	29	24
College Degree(s)	25	26	44
Graduate Degree	42	45	32
TOTAL	100	100	100

Source: Thomson (2008, 2009a)

generation immigrant/high parental education. For students entering as freshmen, first and second generation students with the highest parental education have the highest average high school GPAs and SAT scores. First generation immigrant students with low parental education have the lowest average SAT verbal scores. Third/fourth generation students with low parental education students have the lowest average SAT math scores and high school GPAs.

Such differences, however, are modest compared to the much larger differences in economic resources across the EID typology. As would be expected, level of parental education is very strongly correlated with both Pell Grant recipient status (Table 10) and parental income of \$100,000 and higher (Table 11). However, economic resources also vary significantly by immigrant generation. At UC Berkeley, then, the combined effects of two dimensions of undergraduate diversity, level of parental education and immigrant generation, are strongly associated with the significant diversity of available economic resources. A majority of recent immigrant/low education students are Pell Grant recipients and fewer than ten percent have parents with incomes as high as \$100,000. Conversely, no more than seven percent of non-first-generation/high education undergraduates are Pell Grant recipients and more than seventy percent have parents with incomes of at least \$100,000.

TABLE 10  
Percent Pell Grant Recipients by Immigration Generation and Parental Education Level

Highest Level of Parental Education	Immigrant Generation		
	First	Second	Third+
<b>WOMEN</b>			
No College Degree	64	52	40
College Degree(s)	35	20	11
One Grad Degree	21	13	7
Both Grad Degrees	11	5	4
<b>MEN</b>			
No College Degree	61	51	31
College Degree(s)	36	19	12
One Grad Degree	18	13	7
Both Grad Degrees	13	7	1

Source: Thomson (2008, 2009a)

TABLE 11  
Percent Parental Income \$100,000 or Higher by Immigration Generation and Parental Education Level

Highest Level of Parental Education	Immigrant Generation		
	First	Second	Third+
<b>WOMEN</b>			
No College Degree	3	8	18
College Degree(s)	18	35	54
One Grad Degree	33	55	71
Both Grad Degrees	54	72	79
<b>MEN</b>			
No College Degree	2	8	23
College Degree(s)	19	40	56
One Grad Degree	47	60	72
Both Grad Degrees	63	74	85

Source: Thomson (2008, 2009a)

### EID AND RACE/ETHNICITY

The EID framework is also especially useful in comparing and contrasting the multiplicity of racial and groups at UC Berkeley. Table 11 demonstrates how six racial/ethnic groups have very different parental education and immigration generation profiles. The immigrant generation distributions of White and Chinese students, by far the two largest racial/ethnic groups, are of course very different. Chinese undergraduates are either second-generation (sixty percent) or first-generation (forty percent) immigrant. About twenty-five percent of students counted officially as "White" are first or second generation immigrant (reflecting significant recent Eastern European immigration and the fact that prior to 2010 Middle Eastern applicants to the University of California were instructed to select the White category). But the educational profiles of Chinese and White students are also very different. White undergraduates at UC Berkeley are more likely to have parents where a college degree is the highest level of parental educational attainment. Chinese students are much more likely to have parents at both the lowest (no college degrees) and the highest (both with graduate degrees) levels of parental education, reflecting the differences in geographical, social and linguistic (Cantonese versus Mandarin) origins within the Chinese student population.

Both South Asian and Vietnamese undergraduates at UC Berkeley are about one-third first-generation and two-thirds second-generation immigrant, but the contrast in levels of parental education is striking. More than seventy percent of South Asian students have at least one parent with a graduate degree, while sixty percent of Vietnamese students come from families where neither parent has a college degree.

The education-immigration framework elucidates important distinctions within and across underrepresented minority students. More than seventy percent of Chicano (Mexican American) students also come from families where neither parent has a college -

TABLE 12

Distribution (%) of UC Berkeley Undergraduates across Immigration Generations and Parental Education Levels: Selected Ethnic Groups, Spring 2007

Parental Education	CHINESE			WHITE		
	1st	2nd	3rd+	1st	2nd	3rd+
No College	14	15	-	-	-	14
College	8	11	-	-	5	34
One Grad	9	17	-	-	6	18
Both Grad	6	14	-	-	-	7
Parental Education	SOUTH ASIAN			VIETNAMESE		
	1st	2nd	3rd+	1st	2nd	3rd+
No College	-	-	-	25	34	-
College	8	10	-	9	15	-
One Grad	14	28	-	-	9	-
Both Grad	6	24	-	-	5	-
Parental Education	CHICANO			AFRICAN AMERICAN		
	1st	2nd	3rd+	1st	2nd	3rd+
No College	16	44	13	5	7	42
College	-	7	9	-	6	19
One Grad	-	-	-	-	6	5
Both Grad	-	-	-	-	-	-

Note: Cells with less than 5% are left blank in this table.

Source: Thomson (2008, 2009a)

degree, but Chicano students represent diverse immigrant generations. Consistent with recent national research (Massey et al. 2007; Bennett & Lutz, 2009), only two-thirds of students officially enumerated as African American undergraduates are from

nonimmigrant families. Immigrant “African American” (Afro-Caribbean and African) students are more likely to come from college-educated families, while immigrant Chicano students are less likely to be so.

**EID AND ITS RELATIONSHIP TO THE ACADEMIC EXPERIENCE**

Undergraduates at UC Berkeley have much in common. For example, regardless of background, “intellectual curiosity” is the most frequently cited important factor in students’ choice of major. On the other hand, the Education-Immigration Diversity typology is associated with differences in undergraduate academic engagement and orientation. Many of these differences are relatively modest but taken together they suggest a coherent pattern of the way in which student diversity and the academic experience intersect. Using a simplified Education-Immigration Diversity typology, Table 13 examines many of these differences across a number of domains. As noted earlier, students of different parental educational levels and immigrant generations matriculate with very different levels of cultural and academic capital resources, as summarized in Table 13A.

There are no significant differences by EID on the importance ratings for a number of goals for one’s undergraduate career. Where there were differences, however, they point to a career orientation for High Education + Immigrant students versus a general education approach for Low Education + Non-Immigrant students, on the one hand, and practical orientation for Low Education + Immigrant students versus a value on enjoying college for High Education + Non-Immigrant students, on the other hand (Table 13B).

Three-quarters of Berkeley undergraduates checked “intellectual curiosity” and half checked “prepares me for a fulfilling job” as very important factors in choosing a major. Other factors were checked much less frequently. However, Immigrant + High Education students are more likely to check factors explicitly associated with the successful pursuit of a future career. In contrast, factors checked more often by Non-Immigrant + High Education students suggest the greater relative importance of the college experience. (Table 13C).

Interpretation of undergraduate outcomes (GPA) should take into account the fact that there are “harder” and “easier” majors because of differences in grading practices (Brint et al., 2008). Choice of “hard” or “easy” majors, GPA earned, and satisfaction with this GPA shows variation by type of Immigration-Education background (Table 13D).

TABLE 13

The Association of the Undergraduate Academic Experience with Immigrant Generation and Level Of Parental Education: UC Berkeley, Spring 2007

**13A. CULTURAL AND ACADEMIC CAPITAL RESOURCES**

	Immigrant (Parents or Self)	Not Immigrant
Lower Parental Education	Lowest Parent Income Lowest SAT Verbal  Often Transfer student	Lowest SAT Math Lowest HS GPA  Often Transfer student
Higher Parental Education	Highest SAT Math Highest HS GPA  Rarely Transfer student	Highest Parent Income Highest SAT Verbal  Rarely Transfer student

The process of choosing a major at UC Berkeley varies. Most freshmen begin as undeclared and then fulfill prerequisites for majors whose admission ranges from automatic to highly competitive. Other freshmen are admitted into a major, such as in the College of Engineering (Electrical Engineering & Computer Science is especially competitive). Opportunities for transfer students vary and some departments (such as Philosophy) encourage transfer students. Nonetheless, as seen in Table 13e, the pattern of differences in the likelihood of major by EID is striking.

Table 13B. IMPORTANT GOALS FOR COLLEGE

	Immigrant (Parents or Self)	Not Immigrant
Lower Parental Education	Be in a position to make a lot of money Achieve a high GPA Obtain skills for international arena (F) Integrate spirituality into my life	Acquire a well-rounded general education (F)
Higher Parental Education	Achieve a high GPA Obtain career skills(F), Establish social network for career (F), Establish meaningful friendships	Form romantic relationships (M) Enjoy college years before assuming adult responsibility (F) Establish meaningful friendships

Note: (F) indicates association for females only, (M) for males only.

Tale 13C. IMPORTANT FACTORS IN CHOICE OF MAJOR

	Immigrant (Parents or Self)	Not Immigrant
Lower Parental Education	[NONE]	Intellectual curiosity
Higher Parental Education	Prestige Preparation me for a fulfilling career Leads high paying job(M) Parental desires	Complements desire to study abroad (F) Allows time for other activities

Note: (F) indicates association for females only, (M) for males only.

Table 13D. OVERALL ACADEMIC PERFORMANCE

	Immigrant (Parents or Self)	Not Immigrant
Lower Parental Education	Harder majors Lowest GPA Dissatisfied with GPA	Easiest majors Lower GPA Satisfied with GPA
Higher Parental Education	Hardest majors Higher GPA Dissatisfied with GPA	Easier majors Highest GPA Satisfied with GPA

Table 13E. MORE LIKELY MAJORS

	Immigrant (Parents or Self)	Not Immigrant
Lower Parental Education	Applied Mathematics Chemical Engineering Economics (F) Architecture Business Administration	Film Sociology Anthropology Political Science English Art Philosophy
Higher Parental Education	Bioengineering Electrical Engineering & Computer Science Economics (M) Molecular & Cell Biology Chemical Biology	Cognitive Science Geography Physics Environmental Economics & Policy Music Theater History of Art

Note: (F) indicates association for females only, (M) for males only.

There are also very significant differences in the post-baccalaureate degree and career aspirations across the Immigration-Education Diversity typology (Table 13F).

### THE EDUCATION-IMMIGRATION TYPOLOGY AND PREVIOUS UCUES RESEARCH

Previous research using UCUES results for the University of California has advanced our understanding of student diversity. Flacks and Thomas (2007) explored the implications for student subculture by contrasting students from families with college degrees and first-generation students ("outsiders"). Chatman (2007, 2009) has convincingly established how students in different disciplines or fields of study have diverse patterns of student engagement. Brint, Cantwell & Hanneman (2008) used factor analytic scales to define the "two cultures" of undergraduate academic engagement: humanities/social science (academic interaction, interest in ideas) and natural sciences/engineering (enhanced quantitative skills, collaborative study, labor market rewards).

By introducing explicitly the diversity factors of immigrant generation and parental education, the results for UC Berkeley students summarized here extends this UCUES research. The very sharp contrast in choices of major and career orientation between high parental education/recent immigrant students and low parent generation/non-immigrant students replicates and further contextualizes the Brint, Cantwell & Hanneman (2008) "two cultures" of engagement formulation. However, the contrast

Table 13F. DEGREE AND CAREER ASPIRATIONS

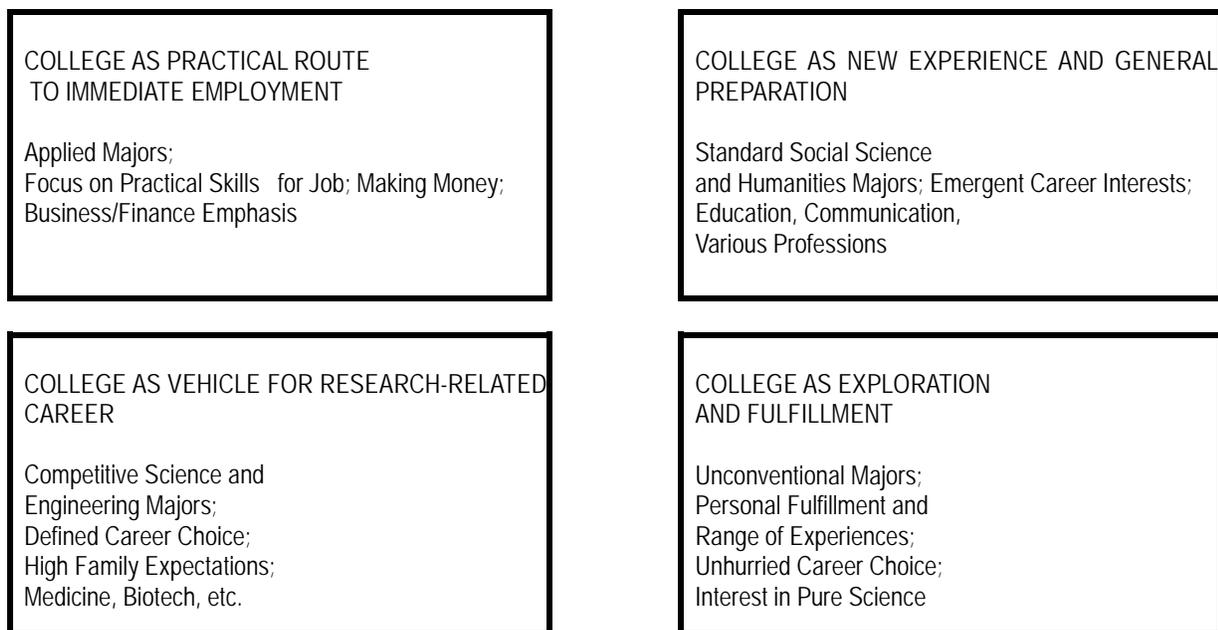
	Immigrant (Parents or Self)	Not Immigrant
Lower Parental Education	MBA, JD BUSINESS/FINANCE	MA, BA, Not Sure, JD EDUCATION Artistic/Creative, Law
Higher Parental Education	MD, PhD MEDICINE/HEALTH Engineering	PhD, Not Sure NO IDEA WHATSOEVER, Researcher/Scientist, Other

Note: UPPER CASE (BOLD) = Strong Relationship Lower Case = Weak Relationship  
Source: Adapted from Thomson (2009a)

between low parent education/recent immigrant students and high parental education/non-immigrant students reveals the second critical polarity in the undergraduate experience. Recent immigrant/low education students, typically with very modest family economic resources, highlight the more practical and instrumental goals of college attendance; more affluent 3<sup>rd</sup>/4<sup>th</sup> generation/high parental education students view college more as the opportunity for personal development and exploration.

Thus, the EID typology based on differences in student demographics helps highlight two fundamental contrasts in student engagement: Type of Academic Discipline and Type of Orientation to College. Type of Academic Discipline is reminiscent of Biglan's (1977) "hard-soft" distinction, while his "applied-pure" distinction has a relationship to the Type of Orientation to College. Figure 1 displays the four "ideal types" of college student engagement suggested by the EID analysis of Berkeley undergraduates.

FIGURE 1  
Four "Ideal Types" of Student Engagement at UC Berkeley Suggested by the Education-Immigration Diversity Typology



It was, in fact, a survey of UC Berkeley students, conducted fifty years ago, that provided the data for the seminal Clark-Trow (1966) student typology. Two of the Clark-Trow student types, 'vocational' and 'collegiate', resonate with the contemporary **CSHE** Research & Occasional Paper Series

contrasting poles of the Orientation to College dimension. Their “academic” student type remains central to the typology, but the “two cultures” (Brint et al., 2008) distinction between natural science and engineering disciplines, on the one hand, and humanities and social sciences, on the other, now appears to be critical in today’s highly selective research university. Only Clark-Trow’s identification of the “non-conformist” student type appears to reflect the 1950s/1960s conformity and its discontents Zeitgeist.

Subsequent student typology research has involved predominantly white middle-class non-immigrant student populations (for a summary, see Luo and Jamieson-Drake, 2005). In this research student demographic diversity, if examined, is presented as a correlate or observed result (for example, as differences in the proportion of ethnic minority students across derived social types). In contrast, the student typology proposed here starts with the significant diversity in student background and then observations of how student diversity correlates with differences in the undergraduate academic experience. The emergent student types are correlated with demographic differences but are not identical to them. Future research will examine the interplay, especially over the course of undergraduate careers, between demographic diversity and type of academic engagement.

### THE ENDURING SIGNIFICANCE OF THE AFRICAN AMERICAN EXPERIENCE

Some universities have shifted their institutional emphasis and language from traditional racial minority and diversity concerns to a more generalized framework such as UC Berkeley’s Division of Equity and Inclusion. As the eminent sociologist Troy Duster observes (Duster, 2009), this shift in institutional perspective can obscure the enduring singularity of the African American experience in higher education.

Our institutional diversity research validates this. Using 2006 UCUES results, Chatman examined sense of belonging using categories across a number of dimensions of diversity (social class, religion, ethnicity, etc.) at University of California campuses and found that African American students report significantly lower sense of belonging (Chatman, 2008). Only at the one UC campus where there are notably higher proportions of African American and Chicano students is this not the case. Analysis of more recent (2008 and 2010) UCUES results replicates and extends these findings (Thomson & Alexander, 2011).

The most recent 2010 UCUES results at Berkeley highlight the magnitude of the difference between African American perceptions of their undergraduate experience and that of other racial/ethnic groups (Thomson & Alexander, 2010). Table 14 displays the percent of unequivocal agreement with two statements by racial/ethnic group: “Students are respected regardless of race/ethnicity” and “Students of my race/ethnicity are respected.” For the generic race/ethnicity respect item, only 22% of African American respondents express solid agreement, less than half as often as other minority group members. For the race-specific item, the figure is only

TABLE 14

Students are Respected Regardless of Race/Ethnicity and Students of My Race/Ethnicity are Respected (UC Berkeley 2010 Undergraduates) -- “Agree” + “Strongly Agree” %

	Students Respected on This Campus	
	Regardless of Race	My Race
South Asian	61	80
White	61	76
Chinese	57	59
Latino	47	54
Korean	53	53
Vietnamese	58	48
Filipino	53	43
Chicano	45	41
African American	22	14
Total	56	61

Note: Other categories were “Somewhat agree”, “Somewhat disagree”, “Disagree”, and “Strongly disagree”  
Source: Thomson and Alexander (2010)

14%, only one-third as often as the next lowest minority group respondents. Multivariate analysis of UCUES results confirms the distinctiveness of the African American undergraduate student experience (Snyder & Thomson, 2010). In other institutional

research, given a low number of African American and other minority respondents, results are sometimes aggregated and presented in terms of a “Non-White” or “Underrepresented Minority” category. Our research suggests that importance of retaining where possible a separate analysis of the African American student experience.

### THE NEW POWER OF QUALITATIVE RESEARCH ON DIVERSITY

The systematic use of census and other large-scale web-based surveys provides institutional researchers unprecedented opportunity to collect and analyze open-ended survey responses in a very cost-effective manner (Thomson, 2010). For example, examining their open-ended survey responses enhances our understanding of the African American undergraduate experience. African American students at Berkeley, comprising less than four percent of undergraduates, report in particular experiences of perceived stereotyping and academic isolation more often than students of other races or ethnicities. One example:

*Often times UCB faculty [and staff] have assumed that I am an athlete in spite of my potbelly and my graying side burns (I am 30). This is evidence that lack of critical mass directly and negatively effects the perception of faculty and students of African Americans on campus. In turn, many of us feel at a disadvantage as we constantly try to prove that we are worthy and on par with other students. I am 30 years old and it has taken all of my maturity to make the best of this lackluster diversity. I could only imagine how a 17-year-old black child must feel when he or she is thrown into an ocean of students, most of who have not interacted with blacks. In spite of being an honor student, I have been chosen last or in subtle ways passed up by others when forming study groups or classroom partnerships. It is only when one glances over my papers and see that I generally receive high marks that they abandon their ill conceived perception of me, as a underperforming, disadvantaged Black guy.*

Another example:

*Being African-American in the Haas School of Business is a challenge because I rarely see other African Americans in my courses. I have been challenged to not let race be the reason why I perform at a lesser quality than the other students (mostly white and Asian). I definitely wish that there were more Black students in my classes as often times I am the sole dark person out of a class of 120 students.*

Source: Snyder (2009)

To understand diversity in higher education the nature and quality of the student experience and interaction needs to be examined (Hurtado, 2006). Previous qualitative research at Berkeley, examining how both relative socioeconomic advantage and strength of academic preparation are associated with significant differences in the first-year experience of UC Berkeley freshmen, has been limited to a small number of study participants (Burkhalter-Simmons, Thomson and the First Year Experience Study Team, 2003). With SERU/UCUES and other web-based surveys, verbatim responses of large numbers of students from diverse backgrounds (race/ethnicity, gender, sexual orientation, social class, religion, etc.) to common questions about their undergraduate experience can be compared and contrasted. For example, student accounts of their experiences with advising and advice can be examined by diversity of student background (Thomson, Snyder & Alexander, 2010).

Berkeley undergraduates have also been asked directly on SERU/UCUES about their first-hand experiences of diversity. Respondents describe compelling instances of increased understanding and awareness through significant interaction (such as being a roommate) with a peer of a different race/ethnicity, religion, sexual orientation, or cultural background (Snyder, 2009).

A significant proportion of respondents reported greater awareness of social class differences. As noted earlier, examination of social class privilege and socioeconomic advantage has been relatively neglected in institutional diversity research (Barratt, 2005). The range of student responses to open-ended questions on diversity can be illustrated using this topic. Here are four examples:

A Chinese American student describes significant socioeconomic differences among roommates:

*Basically, my roommates and I in my first year were all of very different social classes. One of my roommates was more affluent than myself. . . . My third roommate, however, was from a very low-income base and was paying for college via scholarships solely. . . . The most significant specific instance was when my roommate was sharing his problem with the possibility of his parents being kicked out of their apartment for lack of rent money, and he borrowed money from friends of ours to pay for it. . . . My other roommate would often go to the casino and gamble or play online poker with several hundreds of dollars at stake. Even just the money from one outing to the casino (often lost) would have been able to pay for my relatively poor roommate's parents' rent.*

A South Asian engineering student from a recent immigrant and high parental education background broadened his horizons through enrollment in a public policy course:

*I took a public policy course in which the diversity of students was very different than my engineering courses: my engineering courses are typically at least 80% male, there are mostly Asian and Indian kids, and I've only met one black person in Engineering ever. Most people are also economically well off. In my PP class I met people from various different socioeconomic backgrounds. Talking to those people and attending that class really opened my eyes to some of the inequalities they face.*

A white student from Orange County in Southern California contrasted the lack of diversity at home with his experiences at UC Berkeley:

*Entering Berkeley from the cookie-cutter land that is Orange County, where everyone tries to be more like everybody else, it was a breath of fresh air to be in a place where differences are embraced. Back home, my friends were all like me; same demeanor, same interests, same living situation and same old story. However, at school, I find that my friends are as much like me as they are different, and more than anything it is the differences that we have come to embrace over the similar interests. For example, back home nearly all my friends were non-religious. However, at school my friends have come from a variety of different religious backgrounds which has really opened my rather naive eyes to a whole new world of opinions. And even more than religion, it has been my experience with people of different social classes that has been even more surprising.*

Interestingly, the traditional "cookie-cutter land that is Orange County" (conservative/white/affluent/Republican) no longer exists. Orange County is now, for example, only 45% white (Nagourney, 2010).

Finally, a white student from the East Coast contrasts her comfortable socioeconomic status with that of her Chicana housemate:

*I am white and from . . . where by far the majority of people are white. One evening one my housemates and I were talking about our different lives. Her mother came here illegally from Mexico and neither of her parents finished high school. Her dad was a farm worker for years, and now works in a factory and neither of her parents speak English. My dad is a college professor . . . and I will leave college without debt, as my dad's job pays for a huge amount of my college education . . . We were able to share our experiences simply as two very different experiences of growing up in the United States. We also determined that she is more or less where my parents were, as their parents had much more limited educational opportunities, and her children will be in a position much more like my own.*

While the specific nature of the benefits may vary by group, it is generally assumed that diversity in higher education is beneficial for all concerned (Smith & Schonfeld, 2000). Traditionally privileged groups expand their awareness of and appreciation for differences, while previously excluded or invisible groups gain new perspectives and opportunities for mobility. However, the Berkeley diversity narratives point to a more problematic dynamic. Those groups traditionally represented and supported within higher education and society generally (upper-middle class, straight, white, Protestant, traditional age, etc.) do appear to benefit significantly from interaction with their less "privileged" peers, especially given the relatively "equal status contact" (Pettigrew & Tropp, 2006) afforded by their shared identity as Berkeley undergraduates. "Traditional" students gain new information and awareness (e.g., of social inequalities). Many are then able to assimilate this information in a positive way (for example, the student who reported that "we determined" that the future children of her Chicana housemate would experience the same upward mobility her parents had).

In contrast, what students from less advantaged backgrounds report learning through interacting with advantaged students is not always uplifting or evidence of a common ground. A Chinese American student from a modest socioeconomic background writes: *This semester, by sheer accident, a privileged, upper-middle class, and pretty much racist female moved into my apartment as the third roommate. . . . She reeked of self-entitlement, was blatantly anti-immigrants, got angry at Spanish billboards, and talked of how "the Mexicans are taking over the state." How in the world did she get into Cal? And is studying anthropology and sociology. She is racist because she dislikes herself, and has nothing better to hold onto than her "white identity."*

A Chicana, also from a modest socioeconomic background, writes:

*I was discussing race with one of my wealthy white friends. She described how she thought that everyone should be "color blind" in order to rid the world of its racial problems. "Race only matters because we draw attention to it," she said, "If we don't acknowledge it, then the problem will disappear." It was specifically this comment that made me realize exactly what white privilege is. White privilege is believing that race doesn't matter and that if our differences are "ignored", then all of the historically and socially based racial problems will disappear. The fact of the matter is, color is important. . . . My conversation with my friend opened my eyes to the ignorance of white privilege.*

While not necessarily as overtly negative as these two examples, “non-traditional” or minority student diversity narratives are consistent in confirming a significant asymmetry of benefits in diversity dynamics. This asymmetry has been noted anecdotally for decades (for example, instances where the sole African American student in a class is called on to elucidate the Black perspective for the rest of the class). With its open-ended items on UCUES, institutional research at Berkeley has more fully documented the extent to which minority and other non-traditional students report performing what might be termed informal unpaid “diversity work” for the campus. While educational for other students, these efforts do not necessarily result in particularly useful or encouraging information about their more socially advantaged peers. Nor do the interactions ameliorate, for example, experiences of isolation. These findings suggest that campuses concerned about equity and diversity take into account the uneven benefits of campus diversity and the implications of “diversity work” for non-traditional and minority students (Snyder, 2009).

## CONCLUSION

With its extensive program of web-based census surveys, institutional diversity research at the University of California, Berkeley has moved beyond the use of customary categories in describing student diversity in three different ways: First, more detailed racial/ethnic categories and attention to multi-racial students has provided a much more nuanced picture of racial/ethnic diversity, and our research demonstrates why the new IPEDS race/ethnicity reporting requirements are not adequate. Additional research has helped clarify the importance of moving beyond binary measures of socioeconomic diversity (e.g., Pell versus non-Pell; first-generation versus second-generation).

Next, we have extended the study of diversity from an exclusive focus on “minority” (compared to non-minority) students to a more global and multi-dimensional diversity framework. The Education-Immigration Diversity (EID) typology has been especially useful at the University of California in advancing our understanding of the complex interrelationships between racial/ethnic and socioeconomic background and other correlates of student demographic diversity with critical aspects of the undergraduate experience. Our broader approach to diversity has brought into sharper relief two central student engagement dimensions, Type of Academic Discipline and Orientation to College and the relationship of academic and socioeconomic resources to these dimensions. At the same time, our research reaffirms the singular importance of the African American experience when considering diversity.

Finally, we have demonstrated how using open-ended responses on our census surveys contributes significant and cost-effective new information about the experience of student diversity. A promising research approach has been to ask students directly about their experiences with diversity. This has provided important insights into the dynamics of diversity in student lives and the way in which the benefits of diversity are not necessarily evenly distributed.

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<sup>i</sup> Information about UCUES and SERU is available at: <http://cshe.berkeley.edu/research/seru> .