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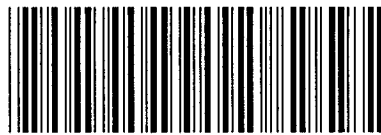
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## Exploring High Academic Performance: The Case of Latinos in Higher Education

L. SCOTT MILLER

**Abstract:** This article examines the challenges associated with improving outcomes in higher education for Latino students. The author reviews data on the underrepresentation of Latinos among top high school students and among top undergraduate students. A discussion of the lack of strategies for increasing the number of high-achieving Hispanic students on the undergraduate level is presented along with a review of strategies that are being developed to increase the number of high achieving Latino undergraduates.

**Resumen:** Este manuscrito examina los retos asociados con el mejoramiento de resultados en la educación superior de estudiantes Latinos. Los autores revisan información sobre la falta de representación de estudiantes Latinos en preparatorias de renombre, así como la carencia de estudiantes óptimos universitarios. Una discusión de la falta de estrategias para aumentar el número de estudiantes Hispanos de alto aprovechamiento a nivel universitario se presenta junto con una revisión de las estrategias que se han desarrollado para aumentar el número de estudiantes universitarios Latinos de aprovechamiento óptimo.

**Keywords:** Hispanic; Latino; higher education; high achievement; college achievement

**If Latinos are eventually to become well represented** in leadership and professional positions that require very high levels of human capital, it will be necessary to dramatically increase the Hispanic share of bachelor's, graduate, and professional degrees awarded by the nation's colleges and universities. But even more will be required: Latinos will have to markedly increase their representation among the nation's most outstanding recipients of these degrees—for example, those who receive bachelor's degrees with honors from very selective colleges and universities, those who are in the top 10% to 25% of their classes in leading law and medical schools, those

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who are among the most outstanding recipients of doctorates in leading programs in the sciences, and so forth. This is because available evidence suggests that not only are Latinos heavily underrepresented among bachelor's, graduate, and professional degree recipients in the United States, they also are even more severely underrepresented among the nation's top students on the undergraduate and graduate levels (National Task Force on Minority High Achievement, 1999).

A primary reason for Hispanic underrepresentation among high achievers in higher education is their very substantial underrepresentation among the nation's top high school graduates by most traditional measures of academic preparation for college, including high school grade point average (GPA), class rank, college admission test scores, and strength of academic program in high school. Thus, Latinos are at a competitive disadvantage academically when they enter college relative to the White majority and to Asian Americans.

There also is a consequential factor at the higher education level: Research indicates that, on average, Hispanic students achieve at somewhat lower levels in college, as measured by GPA, than their White and Asian American counterparts, even when they have apparently similar levels of preparation, such as similar SAT scores and similar high school grades (Cole & Barber, 2003; Ramist, Lewis, & McCamley-Jenkins, 1994). Thus, Latinos lose ground on the high achievement front in college relative to Whites and Asians. This tendency to have lower GPAs in college than similarly prepared White and Asian students is often referred to as the "overprediction" phenomenon because high school grades and admission test scores predict higher college grades for Latino (and Black) students than they generally receive.

These circumstances indicate that marked expansion of the Latino share of top bachelor's, graduate, and professional degree recipients will require major, sustained improvements in academic achievement patterns on the K-12 and the higher education levels. This article focuses on some of the challenges associated with improving outcomes in higher education, particularly during the undergraduate years. Ideally, colleges and universities would be able to help Hispanics gain at least some ground on the high achievement front during the higher education years.

The discussion that follows is in four parts. First, I review data on the underrepresentation of Latinos among top high school students. The data help describe the extent of the high achievement challenge at the start of college. Second, I summarize information on the underrepresentation of Hispanics among top undergraduate students. Third, I discuss the general lack of strategies with strong empirical evidence that they can increase the number and percentage of high-achieving Hispanic students on the undergraduate level. Fourth, I close with a review of some work of the Consortium for High Academic Performance (CHAP) to promote the development

**Table 1**  
Average Performance on Selected Advanced Placement Exams by Race/Ethnicity, 2003

	Biology		Calculus		Chemistry		English Literature/Composition		U.S. History	
			AB							
White	3.07	3.17	3.17	2.86	3.05	3.05	2.85			
Asian/Pacific Islander	3.19	3.20	3.00	3.00	2.96	2.85				
Black	2.04	2.15	1.83	1.83	2.15	1.99				
Mexican American	1.99	2.23	1.73	1.73	2.23	1.89				
Puerto Rican	2.48	2.58	2.23	2.23	2.51	2.27				
Other Latino	2.38	2.58	2.17	2.17	2.48	2.23				
Native American	2.46	2.48	2.14	2.14	2.49	2.35				
Other	2.98	3.08	2.78	2.78	2.97	2.79				
No response	3.01	3.05	2.79	2.79	2.97	2.76				
All	2.67	3.07	2.79	2.79	2.92	2.73				

SOURCE: College Board (2003c).

of more proven strategies for increasing the number of high-achieving Latino undergraduates.

### The Underrepresentation of Latinos Among High-Achieving High School Students

To get a sense of the extent of the shortage of top Latino high school students, Advanced Placement (AP) exam data are particularly valuable because they provide information on student performance on subject area tests benchmarked to entry-level college courses. The College Board now offers about 35 AP courses and exams. The exams for each course are scored on a 5-point scale, with 1 the lowest score and 5 the highest. Over the years, a score of 3 has been viewed by many colleges and universities as evidence that students have performed well enough to earn college credit for the course or to be exempted from the introductory course at the institution. Nonetheless, highly selective colleges may require a score of 5 for credit or advanced placement if they allow either (Miller, 2004).

Table 1 presents data on the average exam scores for racial/ethnic groups on AP exams in 2003 in five important courses—biology, calculus AB, chemistry, English literature and composition, and U.S. history. Table 1 shows that Asian Americans and Whites averaged at least a 3 on three of the five exams. And, on the remaining ones, the Asian and White students' average scores were generally close to a 3. In contrast, none of the three Hispanic segments, or African Americans or Native Americans, came close to averaging a 3 on any of the five exams. Mexican Americans and Blacks—the two largest underrepresented minority segments—averaged only about a 2 on all five exams.

Table 2 presents aggregate AP score data in 1997 and 2003 for Whites, Asians/Pacific Islanders, Mexican Americans, and African Americans. Em-

**Table 2**  
Advanced Placement Data for Whites, Asians/Pacific Islanders, Mexican Americans, and African Americans in 2003 and 1997

% Per Group	Total Per Group									
	White	Asian	Black	All	Mexican American Excluding Spanish Language	White	Asian	Black	All	Spanish Language Excluding Mexican American
Exams scored a 5	152,054	38,431	2,651	14,089	2,343	13.6	17.1	3.4	15.3	3.4
Exams scored a 4	245,268	47,793	7,011	12,506	5,905	21.9	21.2	8.9	13.6	8.5
Exams scored a 3	328,298	58,287	15,252	15,969	13,128	29.4	25.9	19.5	17.3	18.9
Exams scored a 2	268,332	50,025	24,943	22,714	21,671	24.0	22.2	31.8	24.7	31.3
Exams scored a 1	124,966	30,778	28,511	26,820	26,281	11.1	13.7	36.4	29.1	37.9
Total exams takers	1,118,448	225,314	78,368	92,098	69,328					
Total exam takers	660,225	111,704	51,160	59,183	NA					
Avg. no. of exams taken	1.69	2.02	1.53	1.56	NA					
Avg. score of all exams	3.03	3.06	2.11	2.61	2.08					
Exams scored a 5	77,885	19,888	1,409	6,913	1,107	13.3	16.9	4.1	21.4	5.0
Exams scored a 4	126,401	25,486	3,484	5,352	2,732	21.6	21.7	10.1	16.6	12.3
Exams scored a 3	178,519	33,398	7,499	6,606	5,470	30.5	28.4	21.7	20.5	24.6
Exams scored a 2	139,669	24,853	10,842	7,255	6,912	23.9	21.1	31.4	22.5	31.1
Exams scored a 1	62,059	14,025	11,280	6,143	5,973	10.6	11.9	32.7	19.0	26.9
Total exams	584,533	117,650	34,514	32,269	22,194					
Total exam takers	371,606	63,528	24,469	23,406	NA					
Avg. no. exams taken	1.57	1.85	1.41	1.38	NA					
Avg. score of all exams	3.03	3.11	2.21	2.99	2.37					

SOURCE: College Board (1997, 2003c).

NOTE: NA = not available.

phasis is given to Mexican Americans, rather than to Puerto Ricans and other Latinos, because Mexican Americans constitute the majority of Hispanics in the United States. Blacks are included here because they often have the lowest achievement patterns among underrepresented groups. Consequently, they offer an important comparison group for Mexican Americans.

As Table 2 shows, the number of exam takers, exams taken, and scores of 1 through 5 expanded enormously in the period. For example, Whites and Asians together grew from 435,134 test takers in 1997 to 771,929 in 2003—an increase of 77.4%. Mexican Americans and Blacks grew even more, expanding from 47,875 exam takers in 1997 to 110,343 in 2003—an increase of 130.5%. Nonetheless, there were still 7 times as many White and Asian exam takers in 2003 as Black and Mexican American exam takers, even though there were only about 2.5 times as many Whites and Asians in the student age population as Mexican Americans and African Americans.

In 2003, there were very large differences in the overall average scores on AP exams as well. Whites and Asians averaged 3.03 and 3.06, respectively, whereas Mexican Americans averaged 2.61 and Blacks averaged 2.11. Furthermore, the overall average score for Mexican Americans benefited enormously from the very large number of Mexican Americans who took and received a high score on the AP Spanish-language exam. For this reason, Table 2 also presents AP score data for Mexican Americans that exclude their results from the Spanish-language exam. When that is done, the average AP exam score for Mexican Americans in 2003 falls to 2.08, which is actually slightly lower than the overall average score for African Americans.

Regarding high scorers on AP exams in 2003, Table 2 shows that although 14,089 Mexican Americans scored a 5 that year, only 2,343 were on exams other than AP Spanish language. This means that, excluding the Spanish language scores for Mexican Americans, 38 times as many exams taken by Whites and Asians (190,485) were scored a 5 in 2003 than was the case for exams taken by Mexican Americans and Blacks (4,994). This was only slightly better than the multiple in 1997, when about 39 times as many scores of 5 were earned by Whites and Asian Americans (97,793) than by Mexican Americans and Blacks (2,516).

Shifting to data on low scorers on AP exams in 2003, excluding AP Spanish language for Mexican Americans, about 37.9% of the exams taken by Mexican Americans and 36.4% of those taken by Blacks were scored a 1. In contrast, only 11.1% of the exams taken by Whites and 13.7% of those taken by Asian Americans were scored a 1.

A few additional comments about the data in Table 2 need to be made. Between 1997 and 2003, the number of non-Spanish-language AP exams taken by Mexican Americans more than tripled, expanding from 22,194 to 69,328. At the same time, the percentage of the non-Spanish-language exams taken by Mexican Americans that was scored a 1 increased from 26.9%

**Table 3**  
High School Seniors in 1988 and 2000 Who Scored 700 or More on the SAT Math Section, by Race/Ethnicity

	1988			2000		
	No. With 700+	% With 700+	No. of Test Takers	No. With 700+	% With 700+	No. of Test Takers
White	25,530	3.1	813,116	41,449	5.8	712,105
Asian/Pacific Islander	5,394	8.4	64,102	15,456	16.0	96,717
Black	249	0.3	97,483	746	0.6	119,591
Mexican American	149	0.7	22,722	555	1.2	44,921
Puerto Rican	53	0.5	11,497	165	1.2	14,147
Other Latino	273	1.4	20,213	793	2.0	38,804
Native American	105	0.9	12,330	195	2.5	7,658
Other	473	3.4	14,094	2,528	6.5	38,634
No response	2,145	2.7	78,807	12,156	6.5	187,701
Total	34,371	3.0	1,134,364	74,043	5.9	1,260,278

SOURCE: College Board (2000a, 2000b).

to 37.9%, and the percentage scored a 5 dropped from 5.0% to 3.4% (and the percentages scored a 4 and a 3 dropped appreciably as well). These changes suggest that either the quality of the AP courses offered to Mexican Americans was not able to keep pace with the expansion of Mexican Americans taking AP courses and/or that the growth in the number of Mexican American students who were well prepared for those courses was not large enough to support the expansion.

There are no national data on the quality of AP courses. However, the SAT data presented in Table 3 and Table 4 suggest that a shortage of Mexican American students who are academically well prepared to excel in AP courses and on AP exams is a serious problem. In 2000, there were only 514 Mexican Americans who scored 700-plus on the Verbal section and 555 that did so on the Math section. Yet scores such as those are common among students who score 3 or more on the exams for the majority of AP courses. For example, in their report, *Advanced Placement Students in College: An Investigation of Course Grades at 21 Colleges*, Morgan and Ramist (1998) noted that, among high school seniors in 1997 with qualifying AP grades, their combined SAT score was more than 1,300 on 19 of the 31 AP course exams offered that year; and their average high school GPA was 3.67. Similarly, while I was director of the National Task Force on Minority High Achievement in the late 1990s, I had AP and SAT data analyzed for high school seniors in 1995. Those data showed that among Mexican Americans, Puerto Ricans, other Latinos, Blacks, and Native Americans who scored between 900 and 1,600 on the SAT and who had not taken an AP exam, only 3% had an SAT score of 1,300-plus, whereas 77% had a score in the 900 to 1,100 range (Miller, 1999).

**Table 4**  
High School Seniors in 1988 and 2000 Who Scored 700 or More on the SAT Verbal Section by Race/Ethnicity

	1988		2000	
	No. With 700+	% With 700+	No. With 700+	% With 700+
White	34,732	4.3	813,116	5.3
Asian/Pacific Islander	3,393	5.3	64,102	6.4
Black	672	0.7	97,483	0.8
Mexican American	263	1.2	22,722	1.1
Puerto Rican	94	0.8	11,497	1.2
Other Latino	424	2.1	20,213	2.0
Native American	138	1.1	12,330	2.4
Other	711	5.0	14,094	6.0
No response	2,984	3.8	78,807	5.1
Total	43,431	3.8	1,134,364	4.6

SOURCE: College Board (2000a, 2000b).

The data for 1995 seniors also showed SAT and AP score patterns consistent with the findings of Morgan and Ramist (Miller, 2000). For instance, among all seniors in 1995 who had a combined verbal and math score on the SAT of 1,500-plus, 82% had taken at least 1 AP exam, and they had taken an average of 4.97 exams with an average score of 4.30. In contrast, among the seniors with SAT scores in the 900 to 1,100 range, 14% had taken at least one exam, and they had taken an average of 1.67 exams, with an average score of 2.17. Note that the average score of 2.17 is very close to the average AP scores in 2003 for Mexican Americans (when AP Spanish-language test results are excluded) and for Blacks that are presented in Table 2.

That analysis also found that this overall pattern generally did not vary a great deal by race/ethnicity. For example, 63% of the Mexican Americans and 67% of the White high school seniors in 1995 who scored in the 1,300 to 1,500 zone took at least one AP exam. Those Mexican American students averaged 3.6 exams and the Whites averaged 3.3. The Mexican Americans had an average exam score of 3.5, and the Whites averaged 3.6. In the 900 to 1,100 SAT zone, 17% of the African Americans and 12% of the Whites took at least one AP exam. The Black students averaged 1.7 exams taken, compared to 1.6 for the Whites. The African Americans had average exam scores of 1.8 compared to 2.1 for the Whites.

Unfortunately, relatively small numbers of Latino, African American, and Native American seniors in 1995 were high scorers on the SAT. For instance, although there were 64,162 Whites and 10,306 Asians in the 1,300 to 1,500 zone, there were only 792 Mexican Americans, 256 Puerto Ricans, 1,153 other Latinos, 1,358 Blacks, and 279 Native Americans in it. (The total of 74,468 Whites and Asians in that SAT zone was 19 times larger than the 3,838 underrepresented minority students in it.)

Table 3 presents data on the number and percentage of high school seniors from each racial/ethnic group that scored 700 or higher on the SAT Math section in 1988 and 2000. Table 4 presents similar data for those years for the Verbal section of the test. The 700-plus threshold has been chosen because many students admitted to highly selective colleges and universities score at that level on either or both of the Verbal and Math sections of the SAT. (Both sections of the SAT are scored on a scale of 200 to 800.)

Table 3 shows that, in 2000, there were 41,449 White and 15,456 Asian American high school seniors who scored 700 or higher on the Math section of the SAT, compared to only 555 Mexican Americans, 165 Puerto Ricans, 793 other Latinos, 746 Blacks, and 195 Native Americans. Thus, there were 23 times as many White and Asian seniors who scored 700-plus on the Math section than there were underrepresented minority seniors who did so (56,905 versus 2,454), even though there are now only about twice as many Whites and Asians in the student-age population as Hispanics, Blacks, and Native Americans. A very impressive 16.0% of the Asian seniors as well as 5.8% of the White seniors scored 700-plus on the Math section in 2000, whereas only 1.2% of the Mexican Americans, 1.1% of the Puerto Ricans, 2.0% of the other Latinos, 0.6% of the African Americans, and 2.5% of the Native Americans did so.

It also is instructive to compare the SAT math data in 2000 to the math data in 1988. Similar to math test score data from the National Assessment of Educational Progress (NAEP) in these years, SAT math scores suggest that very little progress was made in closing math achievement gaps in that period. Regarding high math achievement, Table 3 shows that although all the groups had growth in the number and percentage of their test takers who scored 700-plus on the SAT Math section, the underrepresented groups had difficulty gaining ground on Asians and Whites. Indeed, they lost ground in terms of the absolute percentages that scored 700-plus. This was partly because of the fact that the percentage of Asians scoring 700-plus on the Math section grew from 8.4% to 16.0%. But it was also because of the fact that the gains for the various Hispanic groups and African Americans were fairly small, which is disappointing given the extensive school reform efforts during the past 20 years.

There is another important point to be made about the data in Table 3. Between 1988 and 2000, the percentage of seniors who took the SAT, but did not answer the background question on race/ethnicity, grew from 7% to 15% (from 78,807 to 187,701). Based on the scoring patterns of the nonrespondents in 2000, it seems likely that most of the growth in nonrespondents was among Whites and Asians. If this was the case, the growth in the number of White and Asian high math scorers on the SAT was much greater than the data in Table 3 indicate, because the number of nonrespondents scoring 700-plus on the Math section grew from 2,145 to 12,156 in the period.

In many respects, the data in Table 4 tell a similar story of underrepresentation of Latinos, African Americans, and Native Americans among 700-plus scorers on the Verbal section. In 2000, about 17 times as many Whites and Asians scored 700-plus on the Verbal section as did students from the underrepresented groups. One very important difference in the verbal scoring pattern relative to the math pattern is that the percentage of Asian students who scored 700-plus was only modestly higher than that of Whites. Another difference is that the growth in the percentages of each group that scored 700-plus on the Verbal section between 1988 and 2000 was generally smaller than the gains registered on the Math section. It is interesting that the smaller changes on the SAT Verbal section compared to the Math section are consistent with changes in NAEP reading and math test scores in the period.

To date, the College Board has not published detailed data on the number of high school seniors from each racial/ethnic group that scored at high levels on the SAT in 2003. But it has published the percentages of each group that did so (College Board, 2003a). Those data indicate that there has been little change for most groups in the percentages scoring 700-plus on the Math and Verbal sections between 2000 and 2003. The largest change was for Asian's scoring 700-plus on the Math section. It had reached 19% by 2003. The most consequential change may have been the percentage of high school seniors in 2003 that did not respond to the question on race/ethnicity, which had reached 25% (College Board, 2003b). Thus, it is now very important to determine what the racial/ethnic mix is of the nonrespondent segment of test takers. Calls to address this question are beginning to emerge (Whittington, 2004).

Although the discussion in this section has focused mainly on AP and SAT scoring patterns, it is noteworthy that they are generally consistent with the scoring patterns for 12th graders on virtually all the subject areas in which NAEP administers exams (not just math and reading). Table 5 presents the percentages of White, Asian, Hispanic, Black, and Native American 12th graders who scored at or above the proficient level and at the advanced level in seven different areas: reading, writing, math, science, U.S. history, geography, and civics. Latino, African American, and Native American 12th graders are heavily underrepresented at both the proficient and advanced levels in all seven areas.

### The High Achievement Situation on the Undergraduate Level

The 1999-2000 National Postsecondary Student Aid Study (NPSAS) provides GPA data on a national sample of students enrolled in higher education. The sample includes students attending institutions of all levels of selectivity. NPSAS data show that although about 17% of the Whites and 14%

**Table 5** Percentages of 12th-Grade Students by Race/Ethnicity Who Scored Within Proficient and Advanced Ranges on the NAEP 2002 Reading, 2002 Writing, 2000 Math, 2000 Science, U.S. History, 2001 Geography, and 1998 Civics Tests

	% at or Above Proficient							% at Advanced						
	U.S.	Reading (2002)	Writing (2002)	Math Science (2000)	U.S. History (2001)	Geography (2001)	Civics (1998)	U.S.	Reading (2002)	Writing (2002)	Math Science (2000)	U.S. History (2001)	Geography (2001)	Civics (1998)
White	42	28	20	23	13	31	33	6	2	3	3	1	2	5
Black	16	9	3	7	3	4	9	1	0	0	0	0	0	1
Hispanic	22	13	4	7	5	21	11	1	1	0	0	0	0	1
Asian	34	25	34	26	26	28	28	4	3	7	4	5	1	5
Native American	NA	NA	10	9	1	32	NA	NA	NA	0	0	1	0	1
American Native	NA	NA	10	9	1	32	NA	NA	NA	0	0	1	0	1

SOURCE: Braswell et al. (2001); Grigg, Daane, and Campbell (2002); Lapp, Grigg, and Tay-Lin (2001); Lutkus, Weiss, Campbell, Mazzeo, and Lazer (1999); O'Sullivan, Latko, Grigg, Qian, and Zhang (2003); Persky, Daane, and Yin (2003); and Weiss, Lutkus, Hildebrandt, and Johnson (2001).

NOTE: NAEP = National Assessment of Educational Progress; NA = not available.

of the Asian Americans earned mostly A's, only 10% of the Hispanics, 7% of the African Americans, and 8% of the Native Americans did so (Horn, Peter, & Rooney, 2002).

During the past several years, this author has had the opportunity to see unpublished GPA data for a number of selective colleges and universities (including some very highly selective institutions). Those data suggest that high achievement gaps at selective institutions are often considerably larger than those found for higher education as a whole in the 1999-2000 NPSAS. In my experience, the percentages of White and Asian undergraduates with a GPA of, say, 3.5-plus (on a 4.0 scale) at selective institutions are often 3 to 5 times as large as those of Latinos, African Americans, and Native Americans. At the 3.75-plus, the multiple can be even larger.

One of the most important published sources of GPA data at selective institutions is *The Shape of the River* by William Bowen and Derek Bok (1998). In it, Bowen and Bok report on their analysis of a database assembled from 28 selective colleges and universities. They found that among students who enrolled at those institutions in 1989, the average White student graduated with a GPA of 3.15 and had a class rank at the 53rd percentile, whereas the average Black student graduated with an GPA of 2.61 and had a class rank at the 23rd percentile. They also found very large differences in class rank between African American and White students with high SAT scores. Notably, the average Black student in their study with an SAT score of 1,300 graduated at the 36th percentile, whereas their White counterparts graduated, on average, at the 60th percentile. Although less information was provided on Hispanics, Bowen and Bok (1998) reported that the average Latino student in the study graduated at the 36th percentile.

Disturbingly, Bowen and Bok (1998) reported that the half-GPA-point difference in average GPAs between Whites and African Americans in their study was about twice as large as predicted by differences in the academic preparation for college between these two groups of students—two to three tenths of a GPA point. They also reported finding that the GPA gap between Whites and Hispanics was somewhat larger than would have been predicted.

Many other studies going back 20 to 30 years at the undergraduate, graduate, and professional school levels have produced similar findings (Klitgaard, 1985; Ramist et al., 1994). Such differences have continued to be found. Notably, Stephen Cole and Elinor Barber (2003) reported in *Increasing Faculty Diversity* that, in their study of students at a number of institutions, 36% of the Latinos with SAT scores of 1,300-plus said that they had an A or A- GPA, whereas 31% of those students said that they had a GPA of B or lower. In contrast, they found among Whites with 1,300-plus SAT scores, that 52% had an A or A- GPA and only 17% had a GPA of B or lower. The percentages for Asians were 50% and 19%, respectively. This general pattern also was found among students with SAT scores of 1,200 to 1,299 and with scores less than 1,200 (Cole & Barber, 2003).

These GPA differences are magnified by the fact that Latinos and African Americans are severely underrepresented among undergraduates at selective colleges and universities. The severity of this underrepresentation is illustrated by enrollment data from seven institutions selected at random from the first 25 on the list of the top 50 national universities in the 2003 edition of *America's Best Colleges*: During the 2001-2002 academic year, Hispanics constituted 7% of the undergraduates at the University of Chicago, 5% at Georgetown University, 11% at the Massachusetts Institute of Technology, 6% at Princeton University, 11% at Rice University, 11% at Stanford University, and 4% at Vanderbilt University; Blacks were only 4% of the undergraduates at Chicago, 6% at Georgetown, 6% at MIT, 8% at Princeton, 7% at Rice, 9% at Stanford, and 6% at Vanderbilt ("America's Best Colleges," 2003). The simple (unweighted) average of undergraduate enrollments for these institutions was less than 8% Hispanic and 7% Black, even though these groups now constitute about one third of the student-age population in the United States and about one quarter of high school graduates in recent years (National Center for Education Statistics, 2003).

The combination of the low percentage of Latino and Black (and Native American) undergraduates at selective colleges and universities, and the very small percentage of these students who earn a high GPA at selective institutions, means that these groups account for a very small share of the high-GPA students at most of these institutions at any given time.

### The Limited Number of Proven Strategies for Promoting High Achievement Among Latino and Other Underrepresented Minority Undergraduates

Recently, the National Science Foundation funded an initiative called Building Engineering and Science Talent (BEST), which has attempted to identify programs at colleges and universities across the country for which there is evidence that they promote greater academic success of students from underrepresented groups in higher education (Building Engineering and Science Talent, 2004). More than 100 programs were reviewed during the course of the study. Yet only one of the undergraduate programs cited by BEST as being exemplary had extensive evidence that it helps raise GPAs of underrepresented minority students. Moreover, that program is the Meyerhoff Scholars Program at the University of Maryland Baltimore County (UMBC), which has been one of the most visible and highly respected programs of its kind nationally for many years (Hrabowski & Maton, 1995; Hrabowski, Maton, & Greif, 1998). Furthermore, even though it has been more rigorously evaluated than most programs, Meyerhoff has not been tested using randomized assignment of students to the program and to a control group. Rather, its evaluation is of a quasi-experimental type that uses carefully selected comparison groups (Maton, Hrabowski, & Schmitt,

2000). Thus, it is not able to meet the highest standards of evaluation evidence.

It also is important to note that Meyerhoff has many distinctive attributes that would make it difficult to replicate on a widespread basis. For instance, the underrepresented minority students in the program (who have been almost exclusively African Americans) are very well prepared academically by traditional measures (i.e., high school GPAs and SAT scores) both for UMBC in general and for their majors at UMBC, despite the shortage of such students nationally. The students also are pursuing only a few majors (in the sciences), which ensures that there is a concentration (critical mass) of well-prepared underrepresented students. Meyerhoff also is a very expensive program, as it not only provides extensive support services but also pays many students' tuition, room, board, and other related expenses. And, Meyerhoff has benefited from unusually strong leadership from UMBC's president, Dr. Freeman Hrabowski, III, who conceived and founded the program.

Interestingly, Meyerhoff also was one of the few programs that Patricia Gándara and Julie Maxwell-Jolly identified as having pretty persuasive evidence of a positive GPA impact, when they looked for such programs on behalf of the National Task Force on Minority high achievement in the late 1990s (Gándara & Maxwell-Jolly, 1999).

Encouragingly, CHAP has encountered some other programs that, if rigorously evaluated (using random assignment to the programs and to control groups), we believe would demonstrate a capacity to help participants earn higher GPAs. Yet even those promising programs serve relatively narrow segments of students. For example, one targets students in biology who are somewhat below average for their preparation for that major at the institution in question; and another serves some extremely disadvantaged, very underprepared students in various majors at a small liberal arts college. We have yet to identify strategies at selective colleges and universities that serve a broad range of Latino and/or other underrepresented undergraduate students in terms of academic preparation and majors and which show promise of producing meaningful high-GPA impacts.

### Work of the Consortium of High Academic Performance

I will close with a discussion of two elements of the work of the Consortium for High Academic Performance that bears on the development of strategies for increasing the number of high-achieving Latino undergraduates at selective colleges and universities. One is a questionnaire for undergraduates known as the Survey of High Academic Performance (SHAPER). The other is a report that we are preparing that makes recommendations for the development and testing of strategies for promoting high academic

achievement among Hispanic and other underrepresented minority undergraduates at selective institutions.

### SHAPER

SHAPER has been designed during the past 18 months and is being used this spring with samples of undergraduates at several institutions. Our expectation is that SHAPER will gather information on undergraduates that can help senior officials, faculty members, and other administrators and professionals at selective colleges and universities develop more effective policies, strategies, programs, and practices for helping higher percentages of undergraduates from underrepresented groups to excel academically. To that end, we will be using data gathered by SHAPER this spring to help inform the report that we are preparing on developing and testing high achievement strategies. We also will be using the data gathered this spring to refine SHAPER so that it can become an information-gathering tool for selective institutions across the country. (Our hope is that SHAPER will eventually prove to be a valuable tool for helping educators to improve outcomes for students from a wide range of backgrounds and circumstances, not just underrepresented minorities.)

Specifically with regard to underrepresented minorities, SHAPER is designed to gather information intended to

1. gain a better understanding of the extent to which African Americans, Latinos, and Native Americans are underrepresented among high-achieving undergraduates at selective colleges and universities (in its initial use, SHAPER is asking students for self-reported GPA and other academic performance information, rather than collecting actual transcript data. However, individual colleges and universities could eventually adapt SHAPER in ways that would use actual transcript information);
2. determine the extent to which the underrepresentation of undergraduates from these groups is correlated with having fewer or lower quality opportunities to learn of various kinds (or different perceptions of these opportunities) than White and Asian American undergraduates;
3. determine the extent to which their underrepresentation also is correlated with having less access than their White and Asian counterparts to various types of information relevant to achieving at high levels; and
4. determine the extent to which a variety of background factors, such as their academic preparation for college or their socioeconomic status, may be correlated with patterns found in numbers 1 to 3.

The set of questions being used in the initial version of SHAPER hypothesizes that students will have a good chance to excel academically by traditional measures at selective institutions when they

1. start college well prepared academically for the institution at which they have enrolled;



2. receive generally good advising, good mentoring, and good academic feedback on their coursework from their professors (the use of the word *good* here really means *good enough*);
3. believe that high academic achievement (by traditional measures) in college may be very important to the realization of their career/professional goals;
4. trust that they are respected as able students and believe that they are treated fairly academically (based on experience);
5. have sufficient time to devote to their studies;
6. have good study habits/skills when they start college or quickly develop them;
7. have the skills and opportunities to become part of multiple student academic networks across the undergraduate years, which include other good students and which operate effectively to support high achievement in most courses;
8. see the value of high academic skill levels in applied settings, such as those provided by undergraduate research positions and summer jobs (this adds concreteness to number 3 above); and
9. feel reasonably at home at their institution.

Some of the many specific hypotheses that we hope to examine with data from SHAPER are as follows:

1. Latinos (and African Americans and Native Americans) at selective colleges and universities are typically markedly underrepresented among the academically best-prepared students at their institutions and similarly overrepresented among the least well prepared. (SHAPER also is designed to shed some light on whether this pattern may vary among Latino segments, such as whether this pattern is more pronounced for Mexican Americans than some other Hispanic groups.)
2. Among students with similar academic preparation for college (as measured by high school grades and admission test scores) at selective institutions, Latinos (and African Americans and Native Americans) have somewhat lower undergraduate GPAs, on average, than their White and Asian counterparts.
3. Hispanics (and Blacks and Native Americans) are less likely than Whites and Asian American at selective institutions to seek guidance, assistance, feedback, and advice regarding assignments, papers, labs, exams, and so forth from their professors and instructors.
4. Latinos (and African Americans and Native Americans) are less likely than Whites and Asian Americans at selective institutions to find academic guidance, assistance, feedback, and advice from their professors or instructors to be helpful.
5. Latinos (and African Americans and Native Americans) are less likely than Whites and Asians to receive advice from faculty members in their majors regarding graduate school.
6. Hispanics (and Blacks and Native American students) are less likely than their White and Asian American counterparts to believe that faculty members think that they can do very well academically in their courses.
7. This pattern exists to some extent at all academic preparation levels, ranging from those who are among the least well prepared for their institutions by traditional preparation measures to those who are among the best prepared.

8. Latino (and African American and Native American students) at selective institutions are less likely than their White and Asian counterparts to believe that other students think that they can do very well in their courses.
9. This pattern exists to some extent for students at all academic preparation levels, ranging from those who are among the least well prepared for their institution by traditional measures to those who are among the best prepared.
10. Because of work and/or family commitments, Hispanic (and Black and Native American) students are less likely than Whites and Asian Americans at selective institutions to have sufficient time to devote to their studies to excel academically.
11. Throughout their undergraduate years, Latino (and African American and Native American) undergraduates are less likely than their White and Asian counterparts to use study strategies and skills that could help them excel academically.
12. These differences are partly related to the fact that Hispanics (and Blacks and Native Americans) have less opportunity to use these strategies and skills than their White and Asian counterparts.
13. Smaller percentages of Latino (and African American and Native American) undergraduates at selective institutions study regularly with high-achieving students than is the case for Whites and Asian Americans across the undergraduate years.
14. Latinos (and African Americans and Native Americans) are less likely than Whites and Asians to have undergraduate research positions, summer jobs/internships, and/or part-time jobs/internships during the school year that are related to their career or graduate school goals.
15. This pattern is correlated in part with the former groups' underrepresentation among high GPA students.

### CHAP Report on Strategy Development

When we began our review of information on programs and strategies for CHAP, we were well aware that it was unlikely that many would be found to have strong evidence that they help raise the academic achievement of Latino, African American, or Native American undergraduates at selective institutions in general and/or that they help increase the number who are high achievers by traditional measures, especially GPA. We expected this owing to the fact that (as noted earlier) few programs have been subjected to rigorous evaluations, especially ones that focus on potential GPA and other academic achievement impacts.

Nonetheless, because so many dedicated individuals have been working very hard for a long time to improve academic outcomes for underrepresented minority students, we did expect to run into programs and strategies that probably are helping produce meaningful achievement gains for participating students, even if they have not been well evaluated from that perspective (and have not necessarily been designed to give high priority to raising achievement, particularly from a high GPA perspective).

## Conclusion

Our expectations have been met on both counts. This has led us to approach the development of a report that has three major characteristics. First, it will emphasize the need to be much more empirical about the strategies that are being used. Thus, we will offer recommendations for the kinds of evaluations that should be conducted on programs in the future. We will strongly recommend that there be a number of tests of programs that use random assignment of individuals to the programs and to control groups. When that is not possible, there should be a commitment to use evaluations that rely in part on stable, well-matched comparison groups.

Second, we will provide detailed case studies of a few programs that do have considerable evidence that they produce valuable achievement impacts. These case studies will include suggestions for how these promising approaches might be subjected to more rigorous tests of their effectiveness.

Third, drawing on these case studies, we will offer commentary on the need for proven strategies that are not only effective but that also could be used realistically with a fairly wide range of underrepresented students in terms of academic preparation in a large number of majors and institutions. In that regard, we will be drawing a distinction between what might realistically be done at small, selective, private liberal arts colleges and what might be done at large, leading research universities—especially those that are public.

Owing to their small size, undergraduate-teaching-oriented faculty, (often) reasonably large endowments, and private status, many selective liberal arts colleges may be in a position to test some pretty resource-intensive strategies (in terms of faculty and funding) that serve a majority of their underrepresented students. In contrast, neither leading public nor private research universities can rely on heavy involvement of large numbers of faculty members because so much faculty work is focused on research and on the education of graduate students. Money is also likely to be a problem at large, public research universities in the current environment. Indeed, outside of science, math, engineering, and technology (SMET) majors, the financing of strategies has often been a major problem.

One final point: The recent Supreme Court rulings in the Michigan affirmative action cases are being interpreted by many colleges and universities as limiting their ability to have programs that specifically target underrepresented students (Schmidt, 2004). Thus, we will be offering suggestions for strategies that serve racially and ethnically diverse/integrated student clienteles.

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