

**Does Participation in Multiple High Impact Practices Affect Student Success at  
Cal State Northridge?: Some Preliminary Insights**

by

Bettina J. Huber

August 2010

## **Does Participation in Multiple High Impact Practices Affect Student Success at Cal State Northridge?: Some Preliminary Insights**

Building on discussion at a number of AAC&U meetings and preliminary work by George Kuh,<sup>1</sup> this brief report summarizes one aspect of a larger study of the effect of selected high impact practices (i.e., service learning, internships, senior experience, research with faculty, and study abroad) on four measures of student persistence and success: GPA at college exit; time to degree, which was considered separately for respondents entering as first time freshmen and transfer students; and a measure of timely graduation.<sup>2</sup> The larger study relied on the responses of 863 graduating seniors at Cal State Northridge (CSUN) who participated in the Spring 2007 administration of the National Survey of Student Engagement (NSSE), which includes questions about the high impact practices (HIPs) dealt with.<sup>3</sup> Table 1 shows the frequency with which respondents reported participating in each one. The relevant NSSE responses were a key element in a series of regression analyses focusing on two questions: whether selected background and college experience factors (e.g., racial and ethnic background, units attempted in Fall 2006, major) foster HIP participation and whether the HIPs under study have an effect on student persistence and success, independent of the background and experience factors that also affect these outcomes.

In addition to examining the potential impact of individual HIPs on student success, their cumulative impact was examined with the aid of a summary measure of HIP participation, a simple count of the number of experiences respondents reported participating in. The findings relating to this measure of cumulative impact are the focus of discussion here. Table 2 shows the number of HIPs that respondents

---

<sup>1</sup> See G. Kuh, *High-Impact Educational Practices: What They Are, Who Has Access to Them, and Why They Matter*, Washington, D.C.: AAC&U, 2008.

<sup>2</sup> Since all seniors invited to respond to the NSSE have accumulated sufficient units to graduate during the administration year, this measure simply assesses whether they, in fact, did so.

<sup>3</sup> Although the response sample is largely representative of the larger group from which it is drawn, analysis suggests that less able students may be somewhat underrepresented.

participated in; one fifth participated in none and about three-fifths participated in one or two.<sup>4</sup> Tables 3a and 3b show the individual HIPs mentioned by respondents who reported participating in more than one. Among respondents participating in two HIPs, three pairs predominate: service learning and internships, internships and senior experience, and service learning and senior experience. The three HIPs included in these pairs are also the ones the most frequently mentioned by respondents reporting participation in three HIPs. Finally, they, along with research with faculty, are the almost exclusive focus of respondents saying that they participated in four of the five HIPs considered.

In assessing the findings reviewed here, it is important to bear in mind that the measure of HIP participation used does not tell us how many high impact courses or experiences students attempted. Rather, given the wording of the NSSE items used, it tells us whether respondents engaged in two or more types of high impact activities. Thus, a respondent who completed three internships, but nothing else, received a HIP summary score of one, while a person completing a single internship and one senior experience course received a score of two.

Figures 1-5 summarize the significant effects of HIP participation on three of the four measures of student success examined — the participation measure had no significant effect on the time to degree of respondents entering CSUN as transfer students. Figures 1a-c suggest that HIP participation enhances GPA at exit, reduces time to degree among respondents entering as first time freshmen, and increases the likelihood that respondents will graduate in a timely fashion (i.e., in 2006-07, as expected). With the exception of the last, these bivariate effects are modest. Figures 2-5 indicate, however, that the impact of HIP participation on all three measures of success and persistence varies by two student characteristics: a low-income background (i.e., receipt of a Pell Grant during the year under study) and a Latina/o background. Given the socio-economic character of the seniors in the response sample, this second

---

<sup>4</sup> Because so few seniors engaged in more than three HIPs, the top three categories are combined for presentation purposes.

served as a means of examining the joint effect of first-generation status and a traditionally underserved background.

Figure 2 indicates that the GPAs of both Latina/o respondents and Pell grant recipients are more positively affected by HIP participation than is the case for other respondents. In fact, the GPAs of the latter do not change significantly as a result of HIP participation. Among the Latina/o and Pell respondents, in contrast, significant gains are evident, especially for students participating in more than one HIP. The average GPAs of those Latina/o and Pell students who have not participated in HIPs during their college years are somewhat lower than those of other students. If, however, they have participated in three or more, their average GPAs slightly exceed those of other students.

Figure 3 summarizes the effect of HIP participation on the average time to degree of Latina/o and other respondents who entered CSUN as first time freshmen; Pell Grant status has no differentiating impact in this case. Although both Latina/o and other students have lower average times to degree as a result of HIP participation, the former reduce their degree time more. For the Latina/o respondents, participation in two HIPs reduces average time to degree by 1.8 years; for other respondents, the reduction is 0.5 years. For both groups, the benefit of HIP participation is not linear, something that was also evident in Figure 1b. Students participating in more than two HIPs during their college careers have somewhat higher average times to degree than those participating in two. These findings suggest that participation in more than two types of HIPs may be too much of a good thing, perhaps because of the extra time required to complete courses involving such divergent high impact activities.

Figures 4 and 5, which summarize variation in the measure of timely graduation, suggest that extensive HIP participation fosters eventual graduation, even though, as just noted, it may slow degree time somewhat. Figure 4 shows that HIP participation benefits Latina/o students more strongly than others, whose modest gains are not statistically significant. The percentage of Latina/o respondents graduating “on time” increases noticeably as HIP participation increases, rising from 38% to 73%.

A different, and atypical, picture emerges when Pell Grant status is examined. Here, as Figure 5 indicates, Pell Grant recipients do not benefit significantly from HIP participation. Instead, the respondents without Pell Grants are the ones who clearly gain, with the percentage graduating on time increasing from 46% for no participation to 73% for respondents participating in three or more different types of HIPs.

In short, the findings summarized above suggest that HIP participation serves to enhance student performance and persistence in several important ways, with traditionally underserved and low-income students often benefitting disproportionately. These findings must be viewed with some caution, however, given the relatively small size of the sample used. This is especially true for the findings relating to the seniors entering as first time freshmen, who account for only 36% of the respondents. Nonetheless, one aspect of the findings may be clear enough to act on. All of the findings summarized indicate unequivocally that participation in multiple high impact activities of different kinds provides greater benefit to students than participation in only one type. Insofar as academic departments already offer an array of courses encompassing the high impact practices dealt with, encouraging their majors to engage in different types may require only small curricular changes. Given the data summarized here, such modest change might yield a significant increase in student success and persistence.

**Table 1. Percentage of CSUN Senior Respondents Attempting Selected High Impact Practices (Spring 2007 NSSE Responses)**

HIP Attempted	Percent Attempting	(No. of responses on which percent based)
Service Learning	47.9	(831)
Internships	48.3	(785)
Senior Experience	33.3	(785)
Research with Faculty	13.4	(784)
Study Abroad	8.3	(785)

**Table 2. CSUN Senior Respondents' Participation in High Impact Practices (Spring 2007 NSSE Responses)**

HIPs Participated in	Percent	Number
Zero (no participation)	20.3	159
One	32.7	256
Two	28.3	222
Three or more	18.8	147
<i>Three</i>	13.8	108
<i>Four</i>	4.6	36
<i>Five</i>	0.4	3
Total	100.0	784

**Table 3a. Percentage of CSUN Senior Respondents Participating in Pairs of High Impact Practices (Spring 2007 NSSE Responses) \***

	Service Learning	Internships	Senior Experience	Research with Faculty	Study Abroad
Service Learning	--	<b>15.5</b>	<b>4.8</b>	1.1	1.0
Internships	<b>15.5</b>	--	<b>8.8</b>	1.4	1.9
Senior Experience	<b>4.8</b>	<b>8.8</b>	--	0.3	0.5
Research with Faculty	1.1	1.4	0.3	--	0.2
Study Abroad	1.0	1.9	0.5	0.2	--

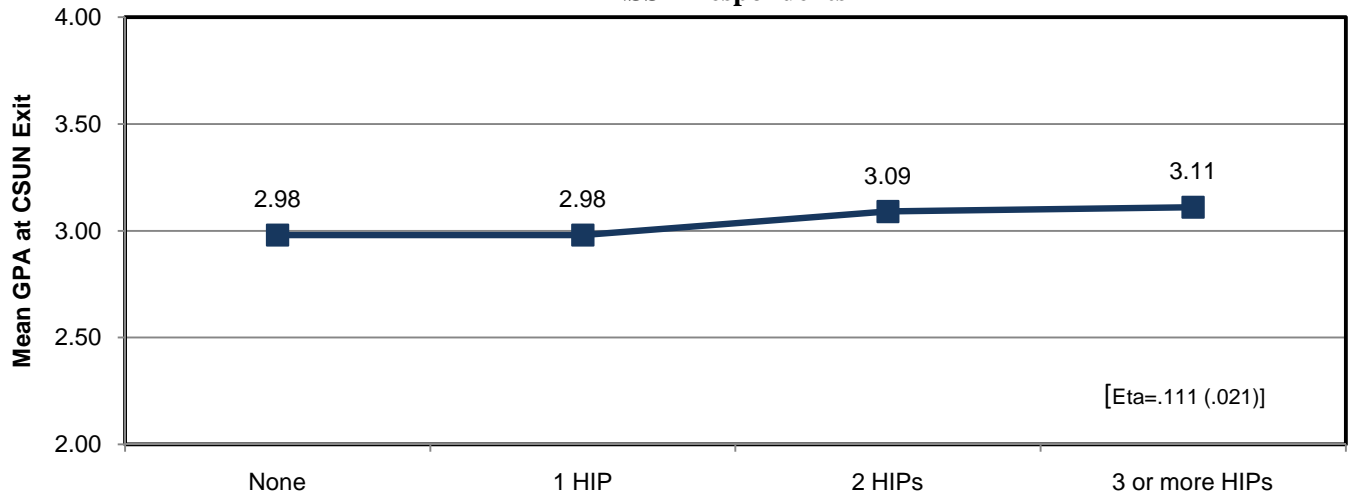
\* The base for the percentages in the table is 625: all respondents participating in at least one HIP.

**Table 3b. Percentage of CSUN Senior Respondents Participating in More Than Two High Impact Practices (Spring 2007 NSSE Responses) \***

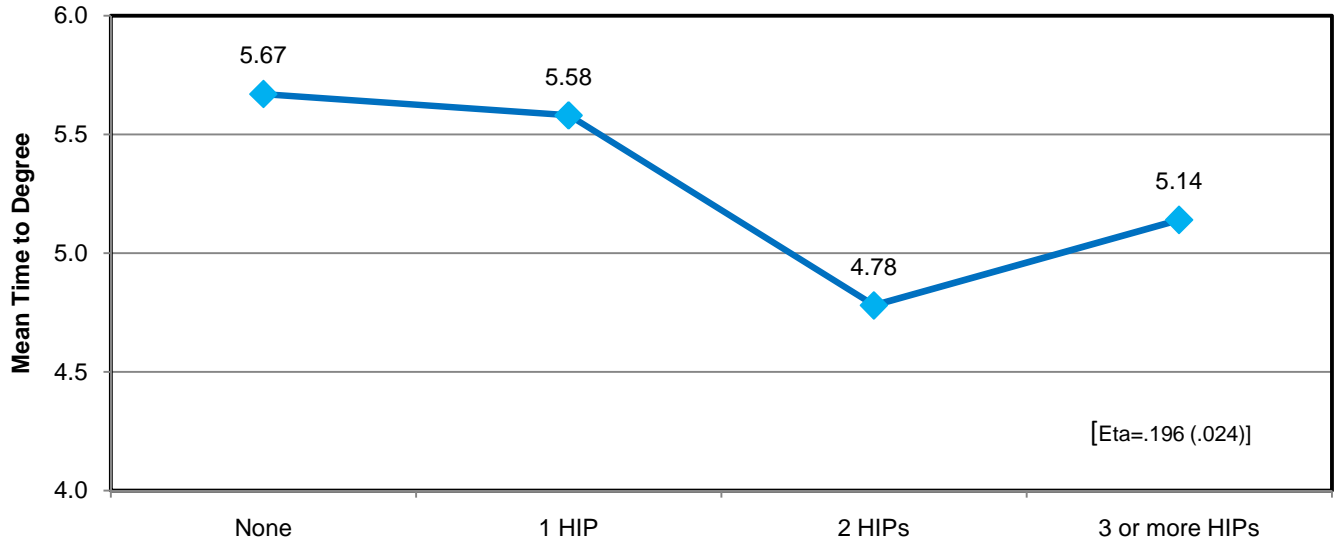
High Impact Practices				Percent
<b>Triads</b>				
Service Learn.	Internships	Senior Exper.		<b>7.8</b>
Service Learn.	Internships	Fac. Research		3.7
Internships	Senior Exper.	Fac. Research		1.8
Service Learn.	Internships	Study Abroad		1.3
Internships	Senior Exper.	Study Abroad		1.1
Service Learn.	Senior Exper.	Fac. Research		0.6
Service Learn.	Senior Exper.	Study Abroad		0.5
Service Learn.	Fac. Research	Study Abroad		0.3
Senior Exper.	Fac. Research	Study Abroad		0.2
<b>Foursomes</b>				
Service Learn.	Internships	Senior Exper.	Fac. Research	<b>4.5</b>
Internships	Senior Exper.	Fac. Research	Study Abroad	0.6
Service Learn.	Internships	Fac. Research	Study Abroad	0.3
Service Learn.	Internships	Senior Exper.	Study Abroad	0.3
<b>All Five Practices</b>				0.5

\* The base for the percentages in the table is 625: all respondents participating in at least one HIP.

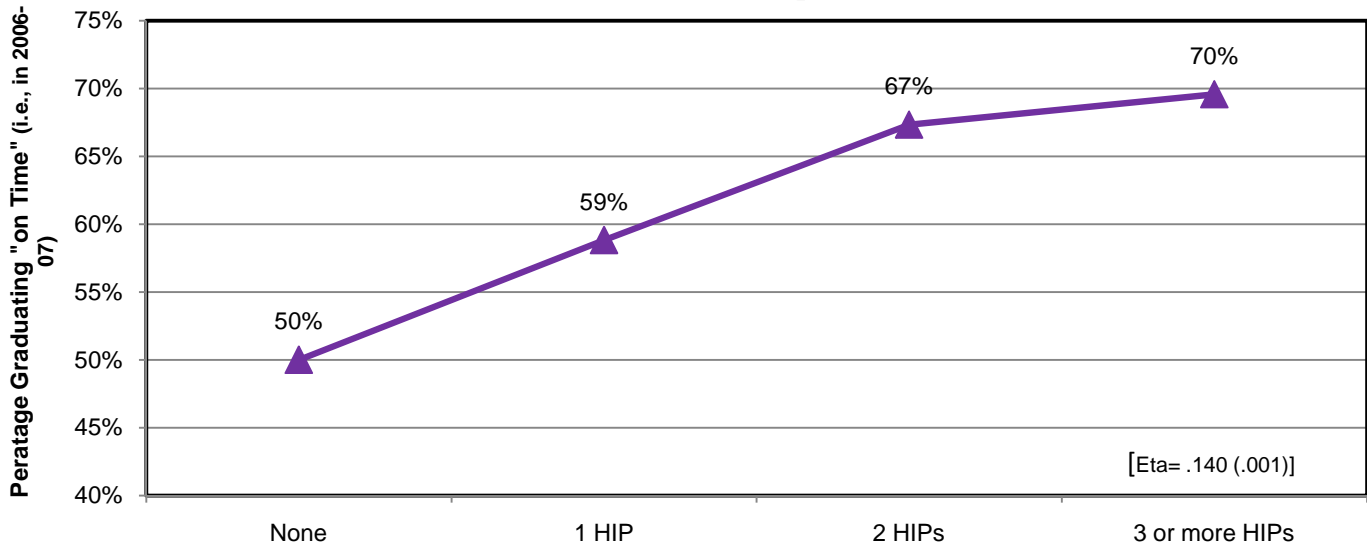
**Figure 1a. Impact of Participation in High Impact Practices on CSUN GPA of Senior NSSE Respondents**



**Figure 1b. Impact of Participation in High Impact Practices on Time to Degree of Senior NSSE Respondents Entering as First Time Freshmen**

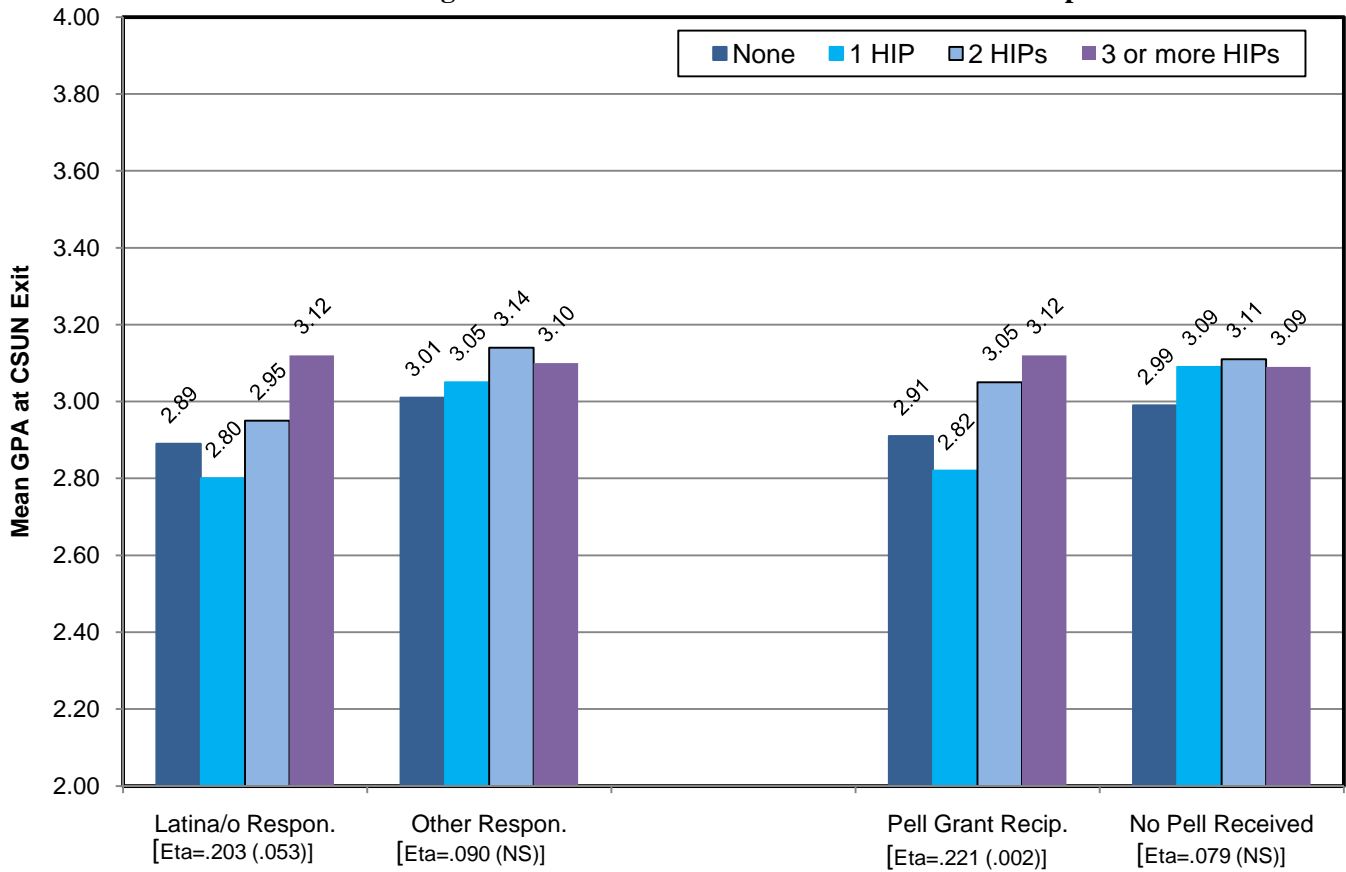


**Figure 1c. Impact of Participation in High Impact Practices on Timely Graduation of Senior NSSE Respondents**

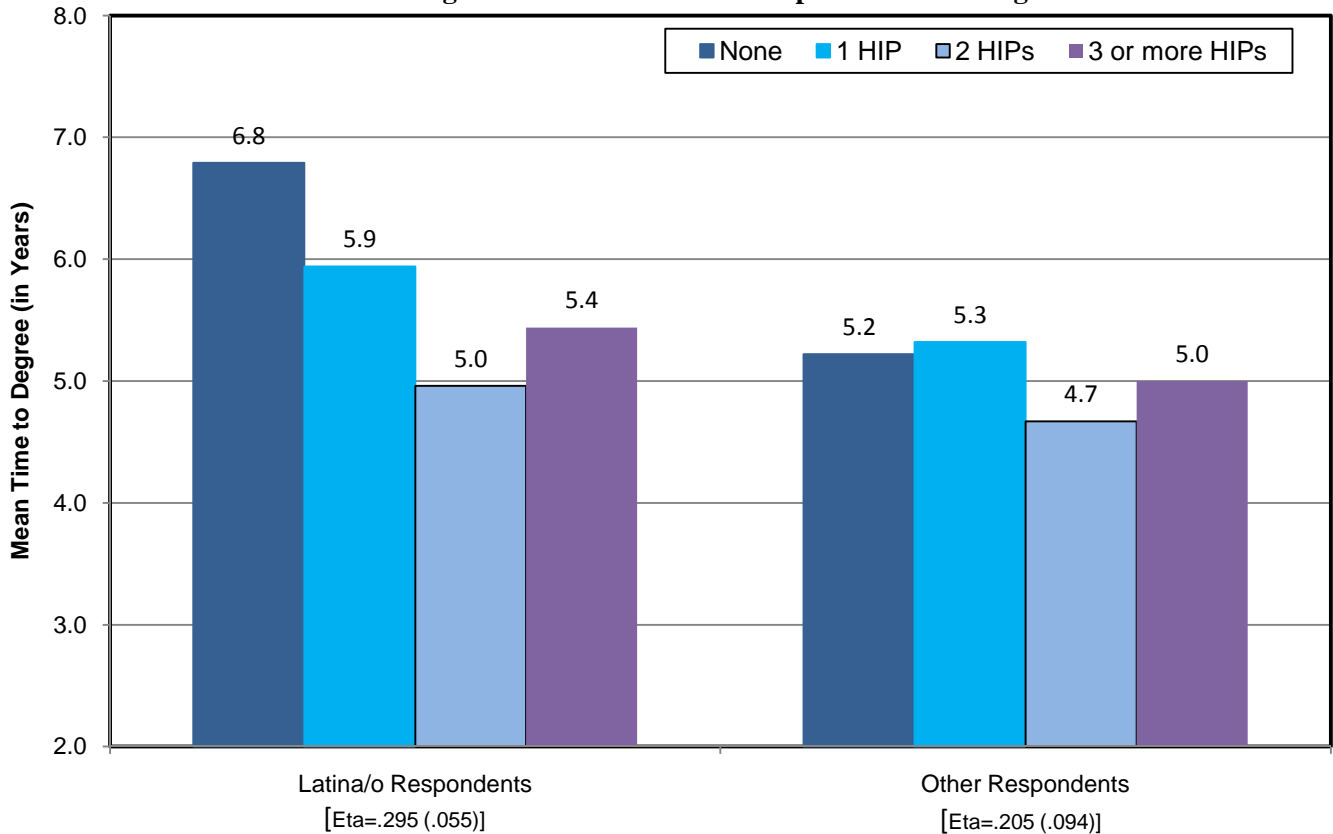




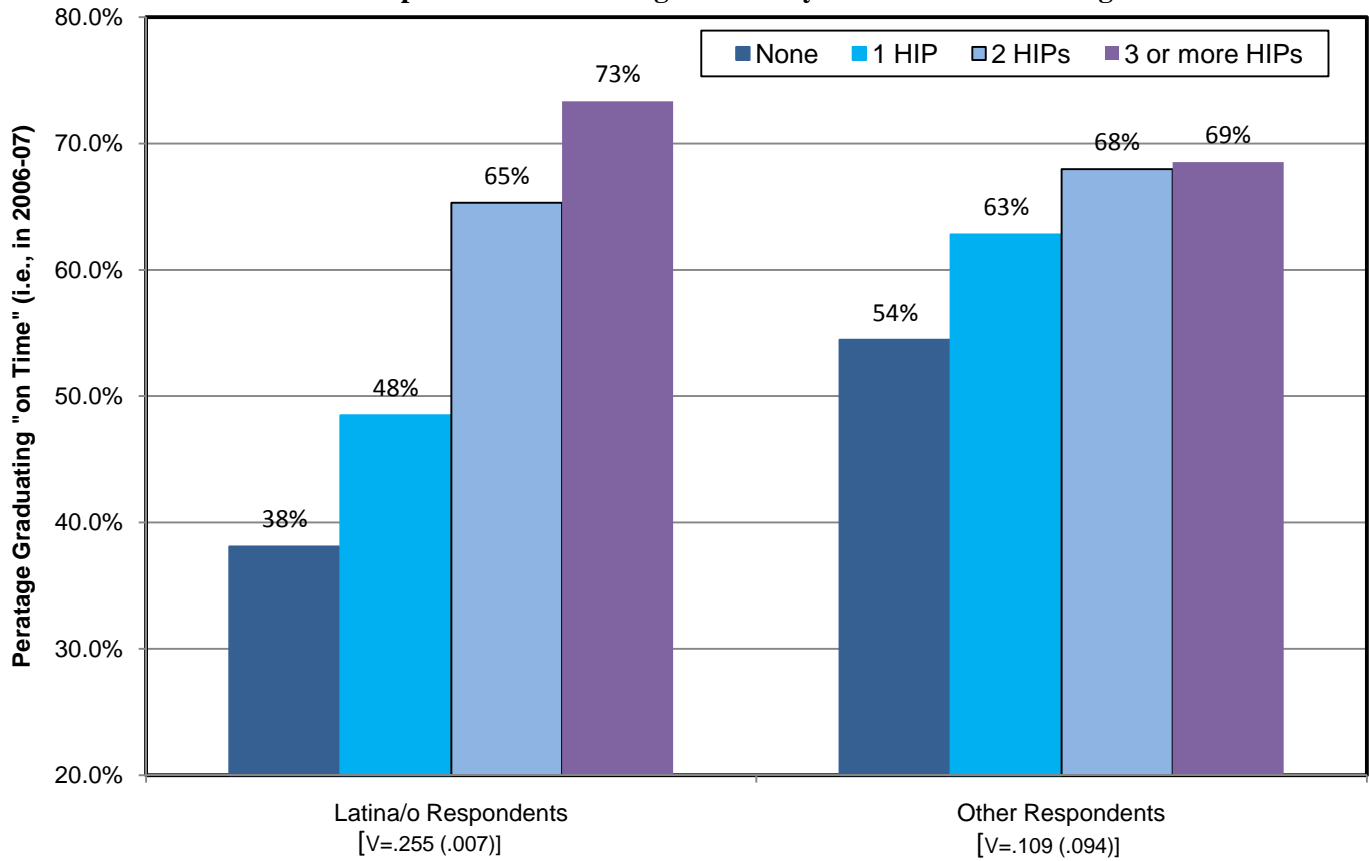
**Figure 2. Impact of Participation in High Impact Practices on CSUN GPA by Racial & Ethnic Background and Pell Grant Status of Senior NSSE Respondents**



**Figure 3. Impact of Participation in High Impact Practices on Time to Degree by Racial & Ethnic Background of Senior NSSE Respondents Entering as Freshmen**



**Figure 4. Impact of Participation in High Impact Practices on Percentage of Senior NSSE Respondents Graduating on Time by Racial & Ethnic Background**



**Figure 5. Impact of Participation in High Impact Practices on Percentage of Senior NSSE Respondents Graduating on Time by Racial & Ethnic Background**

