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Examining the Pre-college Attributes and Values of Latina/o College Graduates

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INTRODUCTION

The dramatic growth of the Latina/o[1] population in the U.S. is evident, as demographic trends project that in the next 50 years this group will account for over half of the population growth, increasing to one-fourth of the entire U.S. population (Llagas & Snyder, 2003). Latinas/os, however, continue to have the lowest rates of educational attainment in comparison to other racial/ethnic groups, and their college degree completion rates have not kept pace with their overall enrollment numbers (Harvey, 2003).

In light of the changing Latina/o demographic growth, these educational disparities can have severe consequences on the social mobility of this emerging racial/ethnic group (Gándara, Larson, Rumberger, & Mehan, 1998). Even more compelling, the largest Latina/o ethnic group of Mexican Americans faces perhaps the biggest challenges toward four-year college enrollment and graduation rates (Gandara, 1994; Solorzano & Solorzano, 1995; Nevarez, 2001). Overall, Mexican American students are the least likely to complete high school, pursue higher education, and graduate with a college degree relative to peers from other racial/ethnic groups (Nevarez, 2001). Regardless of this reality, the vast majority of Latina/o students do enter college with the intention of finishing their degree (Fry, 2002).

PURPOSE

The objectives of this paper are three-fold. First, this research report extends prior quantitative research conducted on bachelors degree attainment (Astin & Oseguera, 2005; Astin, Tsui & Avalos, 1996) by focusing on the pre-college factors that influence Latina/o students to attain their degrees. More specifically, the purpose is to further investigate what pre-college perceptions, behaviors and values are associated with Latina/o baccalaureate degree attainment within six years of college. We focus on the social, economic, cultural, and human capital exercised by Latina/o students to better understand the factors that lead to their bachelors degree attainment. Our study answers the following: What academic and career-related goals and values do students from different Latina/o ethnic groups report upon college entrance? What are the most important factors attributed to Latina/o bachelors degree attainment? More specifically, what forms of capital (e.g. economic, human, social, and cultural) assist Mexican American male and female students to receive their degree?

[1] The term "Latina/o" refers to all Hispanic groups, including but not limited to those of Mexican, Chicano, Puerto Rican, Cuban, Central American, and South American descent.

LITERATURE REVIEW

Research demonstrates that four-year college completion rates have been declining over the past decade across all racial and ethnic groups, as more students take longer to receive their bachelors degree (Astin & Oseguera, 2005). In comparison to other ethnic groups, Latina/o students take longer to enroll in college and to eventually graduate (Kennen & Lopez, 2005; Swail, Cabrera, Lee and Williams, 2005). Delayed enrollment and longer time to degree completion for Latina/o students has been attributed to several factors, such as working full-time while also taking courses part or full-time, having to tend to familial responsibilities, or having to take developmental courses which may not be credited towards degree attainment (Nora, 2004).

A growing body of research on Latina/o retention also identified various factors that impact how and why some students are able to receive a college degree. Research indicates that academic self-efficacy and academic competency influence how far students choose to persist and succeed in college (Nora & Lang, 2000). The availability of financial aid allows Latina/o students to direct more attention to their academic responsibilities, which alleviates stress caused by the lack of funds to finance college or by the familial obligations to send money home (Cabrera, Nora and Castaneda, 1993; Longerbeam, Sedlacek, & Alatorre, 2004). The importance of family support and encouragement provides Latina/o students with the financial, emotional, and psychological support they need to tackle academic and other stressful demands of college McDonough, 2004; Nora, 2004; Hurtado & Carter, 1997; Ceja, 2001)

While there is general research on Latinas/os gaining access to and enrolling in higher education, there are relatively fewer studies focused on the pre-college dispositions and relationships that drive them towards attaining a bachelors degree. This research report contributes to the body of literature by identifying the unique pre-college "capital" that eventual Latina/o degree-completers employ to persist towards graduation.

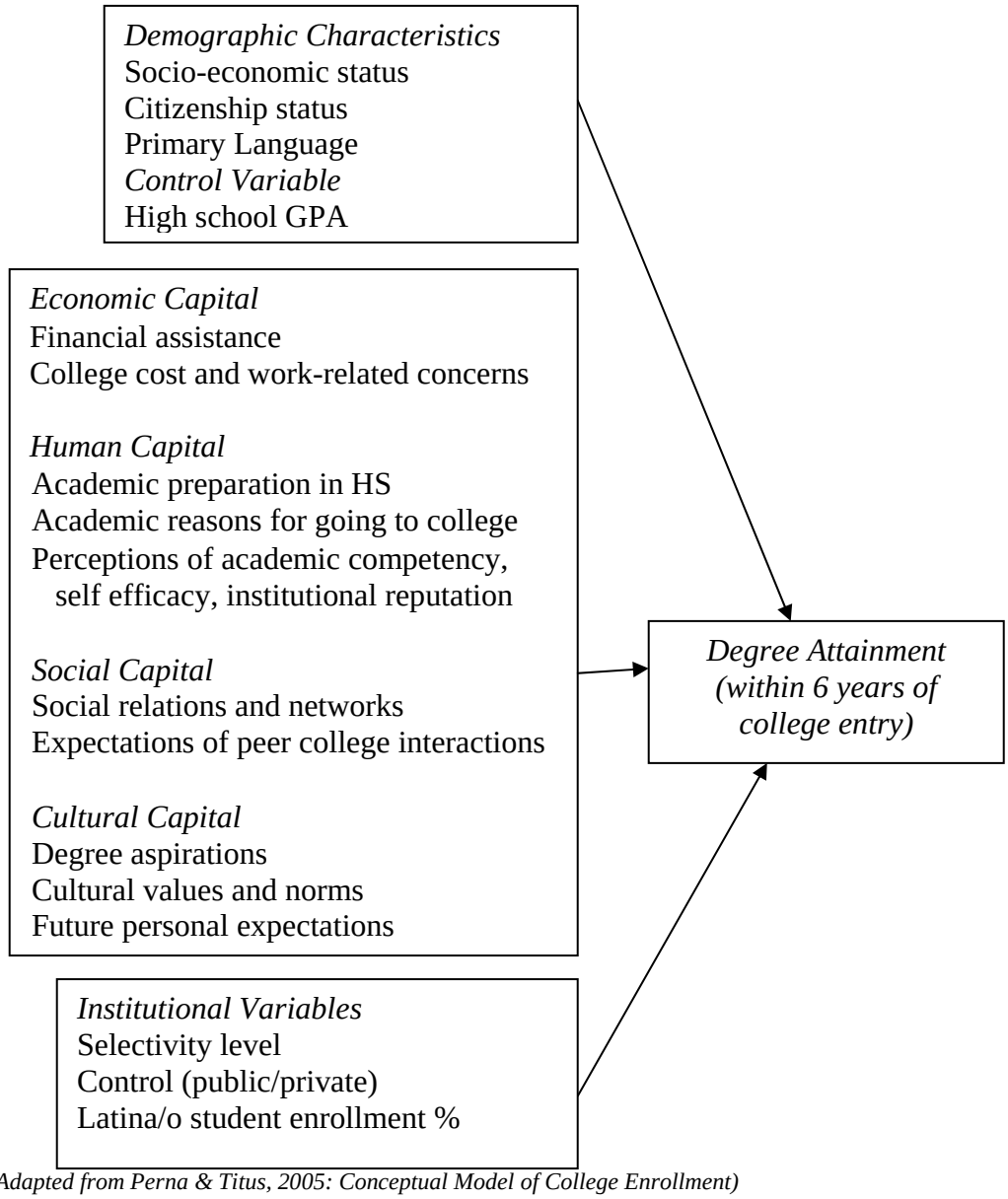
CONCEPTUAL FRAMEWORK

In this report we borrow from the conceptual model offered by Perna and Titus (2005), suggesting that four forms of capital— namely social, economic, cultural, and human capital— have varying effects on a student's decision-making before and during college (see Figure 1). The authors suggest that one form of capital (e.g. social) enables a student to gain access to the other forms (e.g. cultural, human, or economic) in order to enhance their productivity and to facilitate upward mobility and goal-attainment.

We define *social capital* as the relationships a student has with key figures that may provide them access to resources and knowledge pertinent to college enrollment and degree attainment, specifically the relationships with his or her parents, with high school faculty and staff, with mentors, and with his or her peer groups. *Cultural capital* is defined as a student's perceptions, aspirations and cultural values related to college choice as they begin college. *Economic capital* is measured by factors that reflect a student's financial conditions and his or her attitude about college cost, as well as their career and financial aspirations for the future. Finally, *human capital* refers specifically to an individual's abilities and educational achievement based on

performance, perceptions of their self-efficacy, academic competency, and future academic expectations.

*Figure 1. Conceptual Model for Latina/o College Bachelors Degree Attainment**



(**Adapted from Perna & Titus, 2005: Conceptual Model of College Enrollment)*

METHODOLOGY

The data for this report were drawn from a longitudinal sample of 262 public and private four-year institutions that participated in the Cooperative Institutional Research Program's (CIRP) 1994 annual Freshmen Survey. Four and six-year degree attainment data were obtained from registrar personnel at each participating institution in the summer of 2000.

From the overall sample (n= 48,846) in the 1994 Freshman survey and registrar data collection effort, the selected sample for this report was comprised of 2,957 entering Latina/o college students, including 1,323 Mexican American students, 569 Puerto Rican students, and 1,065 students from all other Latina/o groups. A separate White student sample (n=45,889) was also selected for comparison purposes. Table 1 provides a breakdown of this report's sample.

Table 1. Total Sample of Degree Completers by Race/Ethnicity and Gender

Race/Ethnicity	Male		Female		Total
	(n)	(%)	(n)	(%)	(n)
White	19,470	42.4	26,419	57.6	45,889
Mexican Am.	547	41.3	776	58.7	1,323
Puerto Rican	234	41.1	335	58.9	569
Other Latina/o	441	41.4	624	58.6	1,065
Total	20,692	42.4	28,154	57.6	48,846

The dichotomous dependent measure in this report is a student's degree attainment status within six years of college entry, an outcome derived from the registrar data and also used in prior studies (see Oseguera, 2004; Astin & Oseguera, 2005). The key independent measures used in our analyses included control variables reflecting student demographic data and institutional data, and various pre-college variables reflecting four forms of capital. Student demographic characteristics include race/ethnicity and gender, socioeconomic status (comprised of parental education and income), citizenship status, and whether or not a student is a native English speaker. Institutional measures consist of whether a campus is public or private, whether a campus is a university or a traditional four-year college, the percentage of Latina/o students enrolled at an institution, and institutional selectivity as determined by the average combined SAT score of the undergraduate student body. Student pre-college aspirations and experiences were categorized under one of the four forms of capital. (See Appendix A for a complete list of variables).

The quantitative analyses are descriptive and multivariate in nature. The descriptive analyses examined the profile of entering Latina/o and White college freshmen, exploring key differences on degree attainment across a variety of individual and institutional domains. The descriptive results helped to inform the next set of multivariate analyses that focused on the predictive relationships of demographic, institutional, and capital measures on the outcome of degree attainment within six years of college entry. The multivariate analyses were performed only for the Mexican American student sample in order to spotlight key distinctions found across gender, which have been highlighted in previous studies (Suarez-Orozco, 1995).

The report's dichotomous dependent variable (i.e., 0= no degree attainment within six years of college entry, 1= degree attainment within six years of college entry) necessitated a logistic regression analysis. Regression coefficients are exponentiated to reflect odds ratios. Model 1 consists of a student's demographic characteristics and high school grade point average (GPA) upon entering college. Model 2 then adds economic capital variables, Model 3 adds human capital variables, Model 4 adds social capital variables, and Model 5 adds cultural capital

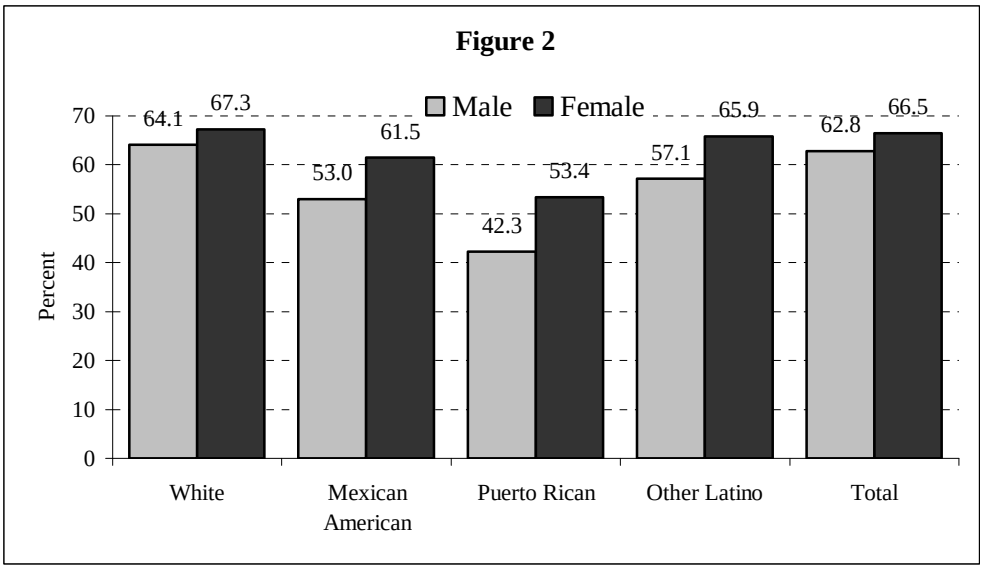
variables. After all these pre-college variables are taken into account, Model 6 adds in unique institutional characteristics to the regression.

RESULTS

Descriptive Analyses

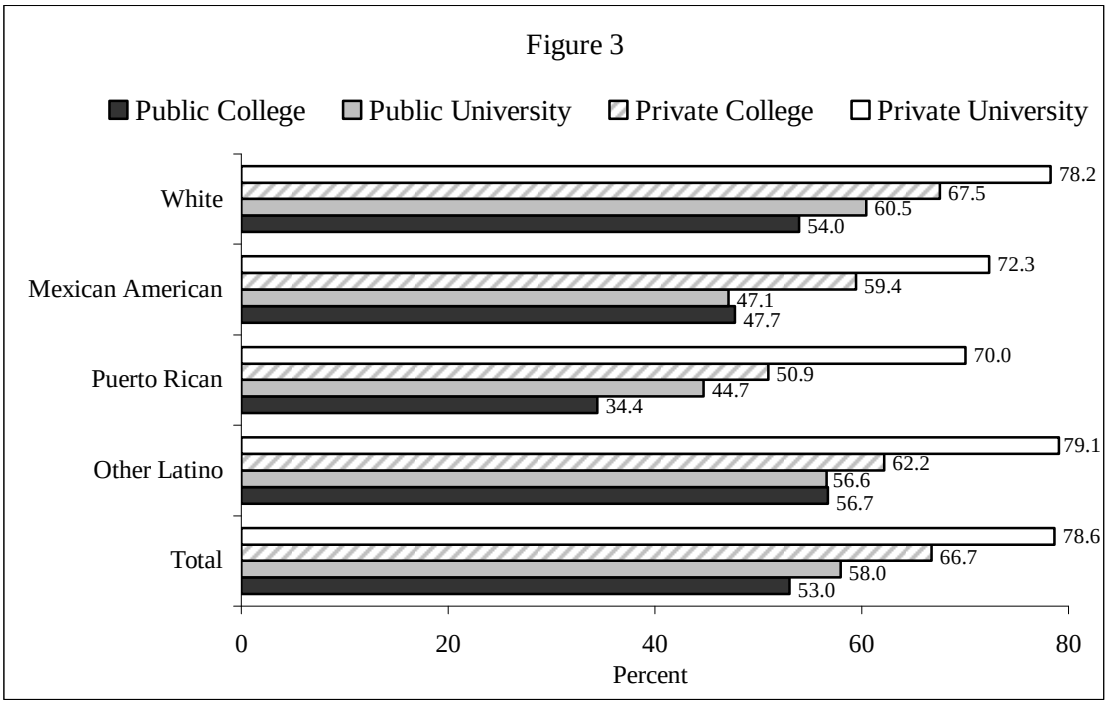
Descriptive data for the sample (n = 48,846) reveal that across all racial/ethnic groups, females receive their degrees at higher rates in comparison to their male counterparts. The females with the highest degree attainment rates are White students (67.3%), followed by Other Latinas (65.9%), Mexican Americans (61.5%), and finally, Puerto Ricans (53.4%). Meanwhile, males have lower rates of degree attainment and reveal a parallel pattern, as White males have the highest degree attainment rates of the male cohort (64.1%), followed by Other Latinos (57.1%), Mexican Americans (53.0%) and Puerto Ricans (42.3%), (See Figure 2).

Figure 2: Bachelors Degree Attainment by Race/Ethnicity and Gender



Other key characteristics of the sample illustrate that more than two-thirds of non-U.S. citizen respondents obtained their bachelors degree within six years of college entry, while the figure is slightly lower for U.S. citizens. Interestingly, degree attainment rates by native English speaker status are the same for both native and non-native students (64.9%). Additionally, students that completed their degrees were represented at various types of higher education institutions (Figure 3). For example, students that attended private universities had the highest degree attainment rates across all categories, followed by students attending private colleges. Students attending public universities and public colleges showed the lowest likelihood of degree attainment. Among Puerto Ricans, those attending private universities were about twice more likely (70.0%) to be degree completers as compared to those attending public colleges (34.4%).

Figure 3: Degree Attainment Rates by Institution Characteristics



Factor Analysis

A closer look at the differences across race/ethnic groups for the factor measures reveal some interesting findings (see Appendix B & C for a complete list of factors and factor score mean differences). Factor mean scores were compared only among degree completers in order to explore salient pre-college differences among this subset of students. One important mean difference suggests that Mexican Americans, Puerto Rican, and Other Latina/o students are significantly more likely than their White counterparts to have higher financial concerns about paying for college ($p<.0001$), a finding that underscores an important disparity at college entry. Similarly, all Latina/o ethnic groups report a higher level of civic/social mindedness ($p<.0001$) as compared to their White peers. Additionally, all Latina/o ethnic groups are significantly more likely than their White peers to report that their decision to go to college was influenced by a mentor ($p<.0001$). Mexican American and Other Latina/o students are significantly more likely to report higher self-efficacy scores than their White peers ($p<.001$). Comparisons also show that Mexican Americans and Other Latinas/os are more likely than their Puerto Rican peers to report higher academic competency ($p<.05$) and higher academic expectations at college entry ($p<.01$. These important racial/ethnic differences serve to establish important contextual understandings of the pre-college differences that may affect retention patterns for these groups.

Logistic Regression Analysis

The next level of analysis focuses on our largest Latina/o group in the sample, Mexican American students, exploring differences across gender within this group through logistic regression modeling (see Table 2). The results are discussed to compare the odds of obtaining a degree for Mexican American female and male students based on the combination of significant predictors for each gender group.

Table 2: Odds Ratios from Logistic Regression Estimates of Degree Attainment within Six Years for Mexican American Females (n= 776) and Mexican American Males (n=554)

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	Females	**Males**	**Females**	**Males**	**Females**	**Males**	**Females**	**Males**	**Females**	**Males**	**Females**	**Males**
Demographic and Control Variables												
SES	1.06	1.07	0.97	1.01	0.93	0.98	0.93	0.96	0.90	0.94	0.92	0.98
U.S. citizen	1.04	0.55	1.13	0.52	1.11	0.50*	1.12	0.47*	1.11	0.45*	1.07	0.40**
Native language: English	0.76	0.87	0.80	0.89	0.78	0.90	0.85	0.89	0.86	0.88	0.96	0.94
High School GPA	1.54***	1.47***	1.49***	1.43***	1.42***	1.35***	1.39***	1.33***	1.42***	1.32***	1.41***	1.26**
Economic Capital Variables												
Chose College: Low tuition			1.06	1.00	1.09	1.00	1.09	1.00	1.10	1.01	1.31*	1.04
Hours working (for pay)			0.92**	0.96	0.93**	0.97	0.93*	0.97	0.93*	0.97	0.96	0.99
Career/Money Oriented			1.03	1.02	1.08	0.97	1.10	1.02	1.12	1.02	1.15	1.02
Financial Concerns			0.87	0.83	0.87	0.83	0.81*	0.79*	0.81*	0.78*	0.80*	0.77*
Financial Aid: Family			1.09	1.02	1.08	0.99	1.08	0.99	1.09	1.00	1.07	0.98
Financial Aid: Savings			1.18**	1.06	1.18**	1.04	1.17*	1.03	1.15*	1.04	1.16*	1.04
Financial Aid: Work			1.05	1.02	1.06	1.01	1.05	1.01	1.05	1.01	1.01	0.99
Financial Aid: Grants			1.05	1.02	1.04	1.01	1.04	1.01	1.03	1.00	1.03	0.77
Financial Aid: Loans			0.99	0.98	1.00	0.98	1.01	0.99	1.00	0.99	0.97	0.98
Human Capital Variables												
SAT composite score					1.12	1.05	1.12	1.05	1.10	1.07	1.04	1.04
Prepare for grad school					0.80	1.01	0.77	1.03	0.80	1.03	0.79	1.01
Hours studying/homework					1.10	1.13	1.08	1.12	1.06	1.12	1.05	1.11
High school years: English					0.87	1.42	0.82	1.53	0.80	1.55	0.80	1.60
Not completing homework on time					0.89	0.88	0.87	0.84	0.82	0.85	0.82	0.89
Frequency: Bored in class					0.98	1.13	0.97	1.17	0.96	1.18	0.98	1.28
Expectation: Fail course(s)					1.01	0.97	0.98	0.95	0.93	1.06	0.93	0.98
Expectation: Drop out					0.99	0.48	1.01	0.39	1.02	0.55	0.82	1.67
Academic Competency					0.94	0.93	0.92	0.93	0.94	0.92	0.93	0.91
Self-efficacy					1.00	1.04	0.98	0.97	0.94	0.94	0.85	0.94
Chose College: Academic Reputation					0.80	1.31**	0.86	1.28*	0.87	1.25*	0.82	1.18
Academic/Learning Interest					0.93	1.62	0.91	1.48	0.93	1.74	0.94	1.66
Social Capital Variables												
Relatives wanted me to attend this							0.91	1.26	0.93	1.28	0.94	1.25
Friend suggested attending this college							1.20	1.26	1.13	1.27	1.16	1.26
Parents wanted me to go to college							0.85	0.87	0.85	0.88	0.84	0.93
Wanted to live near home							1.26*	0.96	1.28*	0.96	1.26*	0.95
Expectation: fraternity or sorority							1.04	0.95	1.02	0.94	1.02	0.98
Expectation: Student protest							1.24*	1.17	1.20	1.20	1.19	1.17
Expectation: Volunteer/service work							1.32*	1.22	1.28	1.18	1.23	1.14
Expectation: Religious activity							0.96	1.19	0.95	1.22	0.95	1.32*
Expectation: Elected to student office							0.91	0.98	0.93	0.98	0.91	1.03
Mentor influenced college decision							1.01	0.87	1.01	0.87	0.98	0.80
Cultural Capital Variables												
Degree Aspiration									1.01	0.64*	0.98	0.60*
Chose College: Local college, no other									0.62	0.93	0.62	1.01
Expectation: Change career choice									1.35**	1.01	1.31*	0.95
Expectation: Extra time for degree									1.04	0.95	1.10	0.93
Expectation: Be satisfied with college									1.34	1.17	1.34	1.15
Civic/Social-mindedness									1.04	0.95	1.05	0.92
Future Academic Expectations									0.94	1.22	0.97	1.26
Institutional Variables												
Selectivity Level											1.22*	1.52***
Percentage: Latina/o enrollment											1.02	1.04*
Public University											0.55*	1.84
Private University											1.26	1.06
Public College											0.73	1.35
Model Summaries	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males
Number of Cases	776	547	776	547	776	547	776	547	776	547	776	547
Overall Prediction Percent	65.2%	60.9%	66.5%	63.1%	66.8%	63.6%	69.3%	65.3%	68.8%	67.6%	69.0%	66.9%
Pseudo *R2*	0.09	0.09	0.12	0.10	0.13	0.13	0.15	0.15	0.17	0.16	0.19	0.19

Note: *=p<.05; **=p<.01; ***=p<.001

Mexican American Females

The logistic regression model for Mexican American females yields strong results, with an overall classification percentage of 69 percent by the final model. The influence of high school GPA on degree attainment is the strongest positive predictor in the model (log odds ratio=1.41, p<.001) throughout the regression. Even with all other variables in the model accounted for, every unit increase in students' reported high school GPA yields over a 40 percent increase in the likelihood that a Mexican American female would eventually obtain a degree. Along with GPA, other positive predictors on female degree attainment include the amount of personal savings available for college financial costs (log odds ratio=1.16, p<.01 in Model 6).

Other capital measures serve as positive influences on female degree attainment. For instance, the importance placed on wanting to live near home during college enters as a significant predictor (log odds ratio= 1.26, p<.05) once social capital variables are accounted for in Model 4. Moreover, females who choose their college because of its low tuition—a form of economic capital—are more than 30 percent more likely (log odds ratio=1.31, p<.05) to earn their degree than those not making their college choice based on tuition. Interestingly, female students who expected to change their career choice during college were also more than 30 percent more likely (log odd ratio=1.31, p<.05) to earn their degree. Social capital variables that serve as significant positive predictors include a student's expectation that she will participate in student protests (log odds=1.24, p<.05), or will volunteer or do community service work during college (log odds=1.32, p<.05), as both of these variables enter positively in Model 4, although both measures lose significance once cultural capital variables are accounted for in Model 5. Selectivity is the only institutional measure that enters as statistically significant (logs odd ratio= 1.23, p< .01), as every 100-point increase in the institutional selectivity measure increases females' likelihood to attain their degree by 23 percent upon college entry.

Female degree attainment decreases by eight percent per unit increase in the number of hours spent working for pay during the last year of high school (log odds ratio=0.92, p<.01) in Model 2. This effect, however, loses statistical significance in subsequent models until Model 6. Similarly, financial concerns at college entrance has a negative effect on degree attainment, decreasing females' likelihood to graduate by 20 percent in the final model (log odds ratio=0.80, p<.05). Moreover, female students who attend a public university are less likely (log odds ratio=0.55, p<.05) to attain their degree than those who attend a public institution.

Mexican American Males

The logistic regression model for Mexican American males is fairly strong as well, with an overall classification percentage of 66.9% by the end of Model 6. As with their female counterparts, high school GPA remains the strongest significant predictor (logs odds ratio= 1.26, p<.01) of Mexican American male degree attainment, increasing their chances by 26 percent for every unit increase in the final model. Other positive influences on degree attainment include male students who report choosing their institution based on its academic reputation (log odds ratio= 1.31, p<.01 in Model 3), and males who report a higher expectation to participate in religious activities during their college years (log odds ratio= 1.32, p<.05 in Model 6).

Institutional characteristics such as the institution's selectivity level and the percentage of Latina/o students enrolled at the institution are also positively and significantly associated with

male degree attainment. In fact, aside from high school GPA, institutional selectivity (1.52 odd ratio, p<.001 at Model 6) has the strongest predictive power on bachelors degree attainment, indicating that for every 100 point unit increase in selectivity, students are more likely to attain their degree within six years by 52 percent. Additionally, the percentage of Latina/o enrollment at an institution enters as a significant positive predictor (log odds ratio=1.04, p<.05) once all other variables in the regression are accounted for by Model 6.

Similar to their female peers, Mexican American males share a concern regarding financing their college costs, as having financial concerns decreases the odds of degree attainment by 23 percent (log odds ratio=0.77, p<.05) in the final model. Being a U.S. citizen for Mexican American males enters as a negative predictor in Model 3 (p<.05), and then greatly decreases the odds of degree attainment as it becomes a strong negative predictor once institutional variables are considered in Model 6 (log odds ratio=0.40, p<.01).

DISCUSSION

The disparities in college enrollment and degree attainment between Latinas/os and their peer groups clearly reflect racial/ethnic educational opportunity gaps in this country. A substantial amount of research has focused on examining conditions and circumstances that have proven detrimental to college access, persistence and achievement for Latinas/os, such as inadequate high school preparation or severe financial constraints. While identifying these problems is an important step towards improving these low college success rates for this group, we instead set out to explore the pre-college attributes and values that serve as essential forms of capital that are drawn upon to eventually obtain a degree.

In order to better understand the disparities in college degree attainment, comparisons were made between Latina/o groups and Whites, and gender differences across the Mexican American group were also taken into consideration. Descriptive evidence reveals that men in general –and especially Latino men—are less likely to graduate than females. More research is needed that focuses on the positive contributions and forms of capital that underrepresented women employ to succeed along the educational pipeline. Evidence from this report might shed light on interventions and strategies to address the lower rates of retention for male students.

Findings from this research report also suggest that particular forms of capital act as key predictors specific to Mexican American degree attainment. The saliency of academic achievement as measured by high school grades and the opportunity of attending highly selective institutions proves to be the key determinants of degree attainment. Although high school GPA was used as a control variable for this study, it can also be considered an ability measure that is a product of other forms of human capital such as strong study habits or high self-efficacy. Moreover, attending a selective institution usually requires its students to perform at high levels and develop strong academic capabilities. This should be of no surprise, as previous research indicates that high levels of performance and preparation allows Latinas/os access to higher quality colleges and universities where they can develop the skills and knowledge necessary to facilitate degree completion (Tinto, 1993). As Fry (2004) indicated in a report on Latina/o degree attainment, “selectivity matters in and of itself, and Latino youth with similar academic

preparation are more likely to finish if they attend a more selective college rather than a less selective college" (p. 5).

We find that certain pre-college social and cultural capital measures also serve as significant influences to degree attainment. For instance, social capital measures that reflect potential peer group and purpose-driven behavior in college are shown to be positive influences. The expectation of entering Mexican American freshmen to participate in student protests, community service-related work, and/or religious activities during college may provide these entering undergraduates with the impetus they need to successfully persist. Prior studies have stressed the importance of participating in socio-cultural and religious organizations for Latinas/os on reinforcing their sense of belonging during college (Hurtado & Carter, 1997). These activities possibly serve as important stimuli for these students to find their niche in college or to strengthen certain cultural or educational beliefs that they hold in high regard. Moreover, these activities are likely helping Mexican American college-goers to maintain relationships with people who share the same interests and values, and more importantly, find meaning and a sense of community in their college environment.

Certain economic capital measures continue to be principal deterrents to college success for Mexican American students, as issues of college cost and work responsibilities negatively affect their chances of finishing with an undergraduate degree. Our results also support prior research which indicates that having concerns or difficulties related to affording college can negatively influence Latino student's aspirations or expectations to be successful in college (Cabrera et al., 1993; Longerbeam et al., 2004). What this indicates, however, is that Mexican American students who enter college financially stable or who receive sufficient financial assistance that quell their college cost concerns are less likely to face difficulties in eventually attaining their degree. Additionally, the significance of wanting to live near home during college also allows Mexican Americans the opportunity to utilize local pre-college communities as resources or financial relief during their undergraduate years.

Finally, the significance of having more Latinas/os enrolled on a campus (as measured by the percentage of Latinas/os enrolled at an institution) on degree attainment for Mexican American males is an important finding that warrants further investigation. That is, male students have better odds of receiving their degree if they are surrounded by more Latina/o students on campus. What this may suggest is that when Mexican American male college students are at an institution where they see peers from the same cultural background as their own, this may be providing the essential cultural reinforcement they need to feel comfortable in their surrounding environment and to be successful in college. Additionally, the increased number of Latina/o peers on campus can provide these students with important role models and mentors. As more colleges and universities emerge as Hispanic-serving institutions, the impact of an increasing Latina/o college contingency will grow to be an even more important factor to consider when conducting research on Latina/o college success and retention (Laden, 2004).

CONCLUSION AND IMPLICATIONS

The growth of the Latina/o population in the United States has and will continue to have important implications for the direction of many aspects of this society, such as the productivity of the nation's workforce, the prosperity of its economy, and the competitiveness and effectiveness of its educational system to produce well-informed and culturally knowledgeable citizens. Unfortunately, the historically low educational attainment level of Latinas/os as compared to other groups is evident throughout the "educational pipeline," and especially in higher education. One way to improve the chances for Latina/o students to succeed in college and attain their degrees is to examine the particular forms of capital and institutional interventions that have assisted those who have achieved this milestone.

Findings from this research report suggest it is important to consider Latina/o student pre-college aspirations, perceptions and values when examining outcomes of retention and degree attainment. More importantly, the focus on nurturing the aspects capital that Latina/o college students utilize to attain their degrees can further inform institutions on how to provide more effective retention programs for this population. As more colleges and universities are emerging as Hispanic-serving institutions, it is critical to view Latina/o college students' assets, attributes and values as ways to inform improvements in student services, administrative policies and enhance other aspects of institutional transformation efforts.

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Appendix A. Description of Items Used in the Analysis

Variable Name	Scale Range
Dependent Variable	
Degree attainment within 6 years	1 = no, 2 = yes
MODEL 1: Demographic and Control Variables	
Socioeconomic Status	Factor
U.S. Citizen	1 = neither, 2 = permanent resident, 3 = U.S. citizen
English is native language	1 = no, 2 = yes
High School GPA	1 = D to 8 = A or A+
MODEL 2: Economic Capital	
Chose College: Offered financial assistance	1 = not important, 2 = somewhat important, 3 = very important
Chose College: Low tuition	1 = not important, 2 = somewhat important, 3 = very important
Hours Working (for pay)	1 = none to 8 = over 20 hours per week
Career/money-oriented Reasons for College	Factor
Financially Concerned (Expect to Work)	Factor
Sources of Financial Aid: Family	1= none, 5 = over $3,000
Sources of Financial Aid: Savings	1= none, 5 = over $3,000
Sources of Financial Aid: Work	1= none, 5 = over $3,000
Sources of Financial Aid: Grant	1= none, 5 = over $3,000
Sources of Financial Aid: Loan	1= none, 5 = over $3,000
MODEL 3: Human Capital	
SAT Composite Score	Combined math and verbal SAT score or converted ACT score; Range= 400-1600
Reason for College: Prepare for Graduate and/or professional school	1 = not important, 2 = somewhat important, 3 = very important
Hours Studying or Doing Homework	1 = none to 8 = over 20 hours per week
Years of High School Study: English	1 = none to 7 = five or more
Frequency: Didn't complete homework On time	1 = not at all, 2 = occasionally, 3 = frequently
Frequency: Was bored in class	1 = not at all, 2 = occasionally, 3 = frequently
Expectation: Fail one or more courses	1 = no chance to 4 = very good chance
Expectation: Drop out temporarily permanently	1 = no chance to 4 = very good chance
Academic Competency	Factor
Self-efficacy	Factor
Choose College: Academic reputation	Factor
Reason For College: Academic/Learning	Factor

Appendix A. (continued)

MODEL 4: Social Capital	
Chose College: Relatives wanted me to come	1 = not important, 2 = somewhat important, 3 = very important
Chose College: Wanted to live near home	1 = not important, 2 = somewhat important, 3 = very important
Chose College: Friend suggested attending	1 = not important, 2 = somewhat important, 3 = very important
Reasons for College: Parents wanted me to go	1 = not important, 2 = somewhat important, 3 = very important
Expectation: Join social fraternity or sorority	1 = no chance to 4 = very good chance
Expectation: Participate in student protests	1 = no chance to 4 = very good chance

Expectation: Participate in volunteer or community Service work	1 = no chance to 4 = very good chance
Expectation: Participate in religious activities	1 = no chance to 4 = very good chance
Expectation: Be elected to student office	1 = no chance to 4 = very good chance
Chose College: Mentor encouragement or advice	Factor
MODEL 5: Cultural Capital	
Highest Degree Planned: PhD or Professional Degree	1 = no; 2=yes
Chose College: Local college; no other options	1 = not important, 2 = somewhat important, 3 = very important
Expectation: Change career choice	1 = no chance to 4 = very good chance
Expectation: Need extra time for degree	1 = no chance to 4 = very good chance
Expectation: Be satisfied with college	1 = no chance to 4 = very good chance
Civic/Social-mindedness	Factor
Future Academic Expectations	Factor
MODEL 6: Institutional Variables	
Selectivity Level	Average combined SAT scores (400-1600) divided by 100
Percentage: Latina/o enrollment	Percentage at institution
Public University	1=no; 2=yes
Private University	1=no; 2=yes
Public College	1=no; 2=yes
Private College (Reference)	1=no; 2=yes

Appendix B. Factor Scales

Variable Name	Scale Range	Loadings All Students	Loadings Mex. Am Only
MODEL 1: Demographic Characteristics			
Factor: Socioeconomic Status		alpha=0.68	Alpha=0.77
Family Income	1=Less than $6,000; 14=$200,000 or more	0.72	0.76
Father's Education	1=Grammar school or less; 8=Graduate degree	0.86	0.88
Mother's Education	"	0.83	0.87
MODEL 2: Economic Capital			
Factor: Career/Money Oriented		alpha=0.62	Alpha=0.61
Reason for Going to College:	1 = not important; 3 = very important		
Make More Money		0.88	0.87
Reason for Going to College: Be Very Well Off Financially	"	0.72	0.74
Reason for Going to College: Get Better Job	"	0.69	0.68
Factor: Financially Concerned (Expect to Work)		alpha=0.59	Alpha=0.51
Expectation: Get Job To Pay Expenses	1 = no chance; 4 = very good chance	0.80	0.77
Expectation: Work Full-Time	"	0.69	0.72
Concern About Financing College	1 = none, 2 = some concern, 3 = major concern	0.73	0.64
MODEL 3: Human Capital			
Factor: Academic Competency		alpha=0.62	alpha=0.59
Self-Rating: Mathematical Ability	1 = lowest 10%; 5 = highest 10%	0.81	0.82
Self-Rating: Academic Ability	"	0.76	0.74
Frequency: Tutored Another Student	1 = not at all, 2 = occasionally, 3 = frequently	0.57	0.53
Years of High School: Math	1 = none to 7 = five or more	0.57	0.57
Factor: Self-efficacy		alpha=0.77	alpha=0.79
Self-Rating: Leadership Ability	1 = lowest 10%; 5 = highest 10%	0.73	0.74
Self-Rating: Self-Confidence (Social)	"	0.73	0.76
Self-Rating: Competitiveness	"	0.72	0.67
Self-Rating: Self-Confidence (Intellectual)	"	0.65	0.75
Self-Rating: Drive To Achieve	"	0.63	0.67
Appendix B. (continued)			
Factor: Chose College: Academic Reputation		alpha=0.74	alpha=0.73
Choose College: Grads Get Good Jobs	1 = not important; 3 = very important	0.86	0.86
Choose College: Grads Go to Top Grad Schools	"	0.84	0.85
Choose College: Good Academic Reputation	"	0.74	0.70
Factor: Reason for College: Academic/Learning		alpha=0.72	alpha=0.71
Reason: Gain General Education	1 = not important; 3 = very important	0.79	0.78
Reason: Become More Cultured	"	0.76	0.76
Reason: Improve Study Skills	"	0.73	0.75
Reason: Learn More Things	"	0.68	0.65

MODEL 4: Social Capital			
Factor: Reasons for College: Mentor encouragement or advice		alpha=0.56	alpha=0.62
Advice of Teacher	1 = not important, 3 = very important	0.82	0.82
Advice of HS Guidance Counselor	"	0.78	0.80
Role Model/Mentor Encouraged Me	"	0.59	0.65
MODEL 5: Cultural Capital			
Factor: Civic/Social-mindedness		alpha=0.70	alpha=0.70
Goal: Influence Social Values	1 = not important; 4 = essential	0.75	0.72
Goal: Promote Racial Understanding	"	0.72	0.73
Goal: Be A Community Leader	"	0.72	0.74
Goal Help Others In Difficulty	"	0.71	0.73
Factor: Future Academic Expectations		alpha=0.60	alpha=0.56
Expectation: Make At Least "B" Average	1 = no chance; 4 = very good chance	0.82	0.81
Expectation: Graduate With Honors	"	0.77	0.77
Expectation: Get BA Degree	"	0.64	0.60

Appendix C. *Factor Mean Scores by Race/Ethnicity*

Factor	Race/Ethnicity	N	Mean (Group-mean=.00)	SD	SE
Factor: Career/Money Oriented	White	28,976	-0.07	1.00	0.01
	Mexican American	712	0.10	0.97	0.04
	Puerto Rican	257	0.06	0.98	0.06
	Other Latino	596	0.01	1.02	0.04
	Total	30,541	-0.06	1.00	0.01
Factor: Financially Concerned (Expect to Work)	White	28,471	-0.09	0.98	0.01
	Mexican American	714	0.35	0.91	0.03
	Puerto Rican	252	0.24	0.88	0.06
	Other Latino	597	0.13	1.03	0.04
	Total	30,034	-0.07	0.98	0.01
Factor: Academic Competency	White	29,844	0.12	0.97	0.01
	Mexican American	756	0.14	0.96	0.04
	Puerto Rican	271	-0.08	0.92	0.06
	Other Latino	646	0.23	0.97	0.04
	Total	31,517	0.12	0.97	0.01
Factor: Self-Efficacy	White	29,910	0.03	0.97	0.01
	Mexican American	753	0.17	1.00	0.04
	Puerto Rican	273	0.03	1.02	0.06
	Other Latino	643	0.21	0.99	0.04
	Total	31,579	0.04	0.97	0.01
Factor: Choose College: Academic Reputation	White	29,375	0.08	0.96	0.01
	Mexican American	730	0.16	0.96	0.04
	Puerto Rican	259	0.07	0.98	0.06
	Other Latino	619	0.17	1.00	0.04
	Total	30,983	0.08	0.96	0.01
Factor: Civic/Social Mindedness	White	29,016	-0.06	0.96	0.01
	Mexican American	719	0.35	1.00	0.04
	Puerto Rican	255	0.42	0.99	0.06
	Other Latino	595	0.33	1.07	0.04
	Total	30,585	-0.04	0.97	0.01
Factor: Future Academic Expectations	White	29,037	0.09	0.95	0.01
	Mexican American	718	0.09	0.92	0.03
	Puerto Rican	261	-0.14	1.02	0.06
	Other Latino	603	0.17	0.92	0.04
	Total	30,619	0.09	0.95	0.01

Note: SD=standard deviation; SE=standard error

Appendix C. Factor Mean Scores by Race/Ethnicity (continued)

Factor	Group 1	Group 2	Mean Diff. (Group1-Group2)	SE	Sig.
Factor: Reason for College: Mentor encouragement or advice	White**	29,230	-0.05	0.97	0.01
	Mexican American*	726	0.24	1.15	0.04
	Puerto Rican	260	0.25	1.09	0.07
	Other Latino*	617	0.20	1.08	0.04
	Total**	30,833	-0.03	0.98	0.01
Factor: Career/Money Oriented	White***	Mexican American	-0.17	0.04	.0003
Factor: Financially Concerned (Expect to Work)	White***	Mexican American	-0.44	0.04	.0000
		Puerto Rican	-0.33	0.06	.0000
		Other Latino	-0.21	0.04	.0000
	Mexican American**	Other Latino	0.23	0.05	.0005
Factor: Academic Competency	White**	Puerto Rican	0.20	0.06	.0095
	Puerto Rican*	Mexican American	-0.22	0.07	.0153
		Other Latino	-0.31	0.07	.0002
Factor: Self-Efficacy	White***	Mexican American	-0.15	0.04	.0009
		Other Latino	-0.18	0.04	.0001
Factor: Choose College: Academic Reputation	NONE				
Factor: Civic/Social Mindedness	White***	Mexican American	-0.41	0.04	.0000
		Puerto Rican	-0.49	0.06	.0000
		Other Latino	-0.39	0.04	.0000
Factor: Future Academic Expectations	White**	Puerto Rican	0.22	0.06	.0023
	Puerto Rican**	Mexican American	-0.23	0.07	.0098
		Other Latino	-0.31	0.07	.0002
Factor: Reasons for College: Mentor encouragement or advice	White***	Mexican American	-0.29	0.04	.0000
		Puerto Rican	-0.30	0.06	.0000
		Other Latino	-0.24	0.04	.0000

Note: SE=standard error; *=p<.05; **=p<.01; ***=p<.001