In hopes of promoting college success among Mexican Americans, researchers have identified factors related to their academic performance. A gap in the literature exists between the interactive role of acculturation, enculturation, and generation status in predicting college self-efficacy and college performance (grade-point average, or GPA). To fill this void, this study investigated the relation of demographic variables (e.g., age, gender, socioeconomic status) and cultural variables (e.g., acculturation, enculturation, generation status) on academic outcomes (e.g., college self-efficacy, college performance) among 408 Mexican-American college students. Results of a series of hierarchical regression analyses indicated socioeconomic status, generation status, enculturation, and acculturation had significant positive effects on college self-efficacy; socioeconomic status and the interaction of higher enculturation and first-generation status were positively and significantly related to GPA. Post-hoc analyses indicated college self-efficacy predicted college performance for students who were second generation and beyond. Implications for research and practice are discussed.

Keywords: Mexican Americans, college students, generation status, acculturation, academic performance
through which immigrants adjust to a new community. Assimilation refers to a process whereby the newcomer merges completely with the host community, leaving behind their original culture and traditions. Separation occurs when the individual rejects the host culture and adheres to his or her culture of origin. With integration, or biculturalism, the newcomer accepts the host community’s culture while retaining aspects of her or his heritage culture. Marginalization on the other hand, occurs when the individual rejects both the host culture and the heritage culture. A bilinear model of the acculturative process has been proposed (Berry, 2003) in that individuals can be high or low on acculturation (the degree to which one adheres to the mainstream culture) and high or low on enculturation (the degree to which one adheres to one’s heritage culture) simultaneously. High acculturation and high enculturation essentially result in biculturalism.

Research has shown advantages for individuals who acculturate and integrate into the host culture (Berry, 2001). As a psychosocial/environmental factor, acculturation may play a critical role in the educational aspirations and success of Mexican-American students. For example, acculturation among Mexican-American students has been linked to better educational and career outcomes (Flores, Navarro, & DeWitz, 2008; Flores, Ojeda, Huang, Gee, & Lee, 2006; Ojeda, Flores, & Navarro, in press). Some research suggests a strong ethnic orientation is related to positive academic outcomes among Mexican-American high school students (Fuligni, Witkow, & García, 2005), whereas others did not find a link between ethnic identity and academic achievement among Latinos (Guzman, Santiago-Rivera, & Hasse, 2005). One potential explanation for the conflicting findings regarding optimal acculturation patterns may be the small amount of research considering the role of generation status of the individual.

Generation status is based on the time when a person’s family arrives to the U.S. (Cuéllar, Arnold, & Maldonado, 1995). For example, Juan is considered to be first generation (immigrant), regardless of legal status because he was born in México and now lives in the U.S. By comparison, his younger sister, Diana, is second generation because she was born in the U.S., and one or both of her parents were born in México. Juan’s and Diana’s Mexican-American peers who were born in the U.S. along with their parents would be considered third generation, whereas those whose grandparents were also born in the U.S. would be considered fourth generation.

First generation Mexican-American students report better grades and more years of schooling, including high college completion rates, than their peers from later generations (Hurtado-Ortiz & Gauvain, 2007; Rodriguez, 2002). In addition, first and second generation Mexican-American students were more motivated to achieve academically than their third-generation counterparts (Kim & Chao, 2009). Some authors explain the academic success of early generation Latinas/os by identifying interceding variables. In one of the first longitudinal studies of first- and second-generation students, Portes and Rumbaut (2001) found parents’ higher ambition and optimism, and students’ level of diligence, commitment, and expectations toward schoolwork and high grades, and low levels of drop-out rates distinguished first- and second-generation students from their later generation counterparts. Immigrant students’ academic success over their native peers may be due to “a residual immigrant drive [of the third-generation-and-later students] that weakens with the passage of time under the continuous influence of an unwelcoming social environment” (Portes & Rumbaut, 2001, p. 279). Adverse experiences that accumulate over time and may undermine the “immigrant drive” for later generation students includes exposure to prejudice and discrimination (Padilla, 2006). Mexican Americans in particular are affected by high rates of prejudice and discrimination due to the México-U.S. proximity and their historical segregated past (Lopez & Stanton-Salazar, 2001; Organista, 2007). Parallel to these adverse experiences is the role that social class (i.e., socioeconomic status, educational, occupational, and financial status; Liu, Robles, Leondar-Wright, Brewer, & Adamson, 2004) plays on students’ academic outcomes. Sociopolitical barriers, primarily the low socioeconomic status (SES) of Latina/o students, may hinder their academic achievement, career development progress, and career-related expectations (Diemer & Blustein, 2006; Diemer & Hsieh, 2008; Diemer et al., 2010).

College self-efficacy is an additional factor that may contribute to the academic success of Mexican-American students and may be con-
considered an important outcome itself (Sheldon & Kasser, 1998). Self-efficacy is an individual’s belief in her or his ability to manage and complete tasks according to the set requirements (Bandura, 1986). Research shows self-efficacy plays a major role in the academic accomplishments of Latina/o students (Flores et al., 2006; Gloria, Castellanos, Lopez, & Rosales, 2005). A strong sense of self, coupled with a high level of college self-efficacy (belief in the capability of one’s academic achievement throughout college; Gore, Leuwerke, & Turley, 2006), may lead Mexican-American students to positive academic outcomes. Given the positive relation between college self-efficacy and academic and life outcomes (Gore et al., 2006; Ojeda et al., in press), we examined college self-efficacy as a second outcome in addition to academic achievement.

The literature discussed thus far demonstrates how Mexican Americans’ cultural variations play a role on academic outcomes. Social-cognitive career theory (Lent, Brown, & Hackett, 1994) purports the need to consider person inputs (e.g., gender and age) and background contextual factors (e.g., SES) on academic and career outcomes such as self-efficacy. Statistics and empirical studies have provided support for the importance of considering such factors on Mexican Americans’ academic outcomes. For instance, one troubling statistic is the significant underrepresentation of Mexican-American men (37%) in higher education compared to Mexican American women (63%; Hurtado, Saenz, Santos, & Cabrera, 2008). This study attempts to help understand this discrepancy by including gender in the analyses.

The person input of SES is also important to consider among Mexican-American college students given Mexican Americans are overrepresented in poverty (Hernandez, 1997). Research shows Latina/o college students’ social class was positively related to academic achievement (Blair, Blair, Legazpi, & Madamba, 1999). Students who fall lower on the social class ladder may not have access to educational resources in the home during their early educational years and may also need to work to fund their education, taking time away from studying and integrating fully into college life. Thus, our study also examines the role of SES on academic outcomes.

Age is a person input in this study and is explored as a potential contributor to the relationship between generation status, acculturation, enculturation, and academic outcomes. This interaction may play a significant role given traditional college students are theoretically still developing a sense of identity and are yet coming to terms with their cognitive self (Harter, 2008).

To summarize, the purpose of this study was to examine the relation of demographic (e.g., gender, SES, age) and cultural variables (e.g., acculturation, enculturation, generation status) on academic outcomes (e.g., college performance, college self-efficacy) among Mexican-American college students. Our hypotheses were informed by the empirical literature on Mexican Americans’ educational and career development. Regarding the demographic variables, we expected being younger, being female, and perceiving higher SES would result in better academic outcomes. In regards to the role of the cultural variables, we expected acculturation but not enculturation would predict better academic outcomes. Given the contradictory findings on the role of generation status on academic outcomes, no hypotheses were formed for this relation.

**Method**

**Participants**

Participants included 408 (58% female; 42% male) Mexican Americans attending a Hispanic-serving institution (86% Hispanic) near the Texas–México border. Admission requirements at this institution in the Fall of 2009 required minimum scores of 17 or 810 on the ACT and SAT (math and verbal), respectively. Students ranged in age from 17 to 25 years ($M = 20.24$, $SD = 1.77$). College standing consisted of 23% first-year students, 40% sophomores, 21% juniors, and 15% seniors. Students’ self-reported GPA ranged from 0.5 to 4.0 ($M = 2.91$, $SD = 0.51$) based on a 4.0 scale. Generation status consisted of 20% first generation (México born), 38% second generation (U.S. born), 20% third generation (parents U.S. born), 15% fourth generation (grandparents U.S. born), and 8% fifth generation (great grandparents U.S. born). Most participants reported their perceived SES as middle class (47%), followed by working
class (37%), upper-middle class (15%), and upper class (1%).

Instruments

Demographic questionnaire. A demographic questionnaire was included for participants to indicate race/ethnicity, gender, age, generation status, year in college, GPA, and SES.

Acculturation and enculturation. The 30-item Acculturation Rating Scale for Mexican Americans–II (ARSMA-II; Cuéllar et al., 1995) measures orientation to the Mexican (enculturation) and White (acculturation) cultures. It contains two subscales, the Mexican Orientation Subscale (MOS; 17 items) and the Anglo Orientation Subscale (AOS; 13 items). A bilinear model was used so that orientation to both cultures can be measured independent of each other. Sample MOS items include, “I speak Spanish,” and “I like to identify myself as a Mexican American.” Sample AOS items include, “I associate with Anglos.” and “My thinking is done in the English language.” Participants respond to items on a 5-point Likert scale, ranging from 1 (not at all) to 5 (extremely often or almost always). Item responses were averaged to obtain a subscale mean. High scores on the MOS or AOS subscales represent a strong orientation toward the Mexican or Anglo cultures, respectively. Concurrent validity has been supported by correlations with a different acculturation measure (Stephenson, 2000) and by correlations between the ARSMA-II and the original ARSMA scale (Cuéllar et al., 1995). Studies have reported coefficient alphas ranging from .87 to .91 for the MOS, and .69 to .83 for the AOS (Bettendorf & Fisher, 2009; Cuéllar et al., 1995; Cuéllar & Roberts, 1997; Lessenger, 1997). The alpha score for the current study was .89 for the MOS and .65 for the AOS.

College self-efficacy. The 20-item College Self-Efficacy Inventory (Solberg, O’Brien, Villareal, Kennel, & Davis, 1993) assesses student’s perceived ability to perform college-related tasks. Questions begin with “How confident are you that you could successfully complete the following tasks...” In this study, responses were measured on a 9-point Likert scale ranging from 0 (not at all confident) to 8 (very confident). Mean scores are obtained to determine level of college self-efficacy. High scores indicate high levels of college self-efficacy. Construct validity has been determined using principal components analysis for all items (Solberg et al., 1993). Concurrent validity has been demonstrated through correlations with academic performance and persistence (Gore et al., 2006). Research has reported a coefficient alpha of .92 (DeWitz & Walsh, 2002). The alpha coefficient for the current study was .90.

College performance. Participants reported their college GPA on a 4.0 scale.

Procedure

Faculty in the College of Social and Behavioral Sciences were solicited via e-mail to provide the researchers with permission to distribute surveys to their students during class time. During the first week of the Spring semester, a researcher attended eight classes to introduce the study to students and review the informed consent form. All students regardless of race/ethnicity consented to participate in the study and completed the survey within 30 minutes. For the purposes of this study, only participants who self-identified as Mexican American were included. Students were given snacks as a reward for participation.

Result

The means, standard deviations, and bivariate correlations among the study variables are depicted in Table 1.

Regression Analyses

We conducted two hierarchical multiple regression analyses to test the main effects of demographic variables (e.g., age, SES, gender) and cultural variables (e.g., generation status, acculturation, enculturation) on two academic outcomes, college self-efficacy and college performance (GPA). We also tested for interaction effects to determine if the interaction between (a) generation status and acculturation and (b) generation status and enculturation would predict the academic outcomes. Following guidelines on testing moderator models outlined by Jaccard, Teitel, and Turrisi (2003), the predictor variables were entered in the following order: (1) main ef-
effects for demographic variables (e.g., age, gender, SES) and cultural variables (e.g., generation status, enculturation, acculturation); and (2) the 2-way interaction terms (i.e., generation status × enculturation, generation status × acculturation). To minimize potential collinearity effects and to test moderation effects with continuous variables, enculturation and acculturation scores were standardized, and generation status was treated as two categorical variables (i.e., first generation vs. others, second generation vs. others) with third generation or higher serving as the “others” comparison group prior to the creation of cross-product terms (Aiken & West, 1991).

Table 2 provides results from the regression analyses predicting GPA (college performance). In Step 1, only SES emerged as a positive significant predictor of GPA ($\beta = .23$). In Step 2, there was a significant increase in $R^2$. The interaction between first generation status and enculturation was significant but not between first generation status and acculturation or between second generation and either enculturation or acculturation. Using guidelines recommended by Aiken and West (1991), we graphed the interaction effect using the unstandardized regression coefficients for the predictor, moderator, and interaction terms. Encul-

Table 1
Correlations Among Independent and Dependent Variables

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Generation status</td>
<td>2.53</td>
<td>1.19</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Enculturation</td>
<td>3.68</td>
<td>.75</td>
<td>-0.59**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Acculturation</td>
<td>3.78</td>
<td>.41</td>
<td>.15**</td>
<td>-0.01</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. GPA</td>
<td>2.91</td>
<td>.51</td>
<td>-0.01</td>
<td>-0.04</td>
<td>-0.03</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. College self-efficacy</td>
<td>6.17</td>
<td>1.04</td>
<td>0.11*</td>
<td>0.31*</td>
<td>0.24***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. SES</td>
<td>1.79</td>
<td>.72</td>
<td>0.13**</td>
<td>-0.04</td>
<td>0.03</td>
<td>0.24***</td>
<td>0.20**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Age</td>
<td>20.24</td>
<td>1.77</td>
<td>-0.00</td>
<td>-0.03</td>
<td>-0.04</td>
<td>-0.13*</td>
<td>0.02</td>
<td>-0.07</td>
<td></td>
</tr>
<tr>
<td>8. Gender</td>
<td>1.58</td>
<td>.49</td>
<td>-0.00</td>
<td>0.11*</td>
<td>0.03</td>
<td>0.07</td>
<td>0.02</td>
<td>0.02</td>
<td>0.02</td>
</tr>
</tbody>
</table>

Note. GPA = grade point average; SES = socioeconomic status.
* $p > .05$. ** $p > .01$. 

Table 2
Hierarchical Multiple Regression Model Predicting College Performance

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>College performance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$R^2$</td>
</tr>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>.071***</td>
</tr>
<tr>
<td>Age</td>
<td>- .01</td>
</tr>
<tr>
<td>SES</td>
<td>.17</td>
</tr>
<tr>
<td>First generation</td>
<td>.04</td>
</tr>
<tr>
<td>Second generation</td>
<td>.05</td>
</tr>
<tr>
<td>Enculturation</td>
<td>.04</td>
</tr>
<tr>
<td>Acculturation</td>
<td>.01</td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td>.094***</td>
</tr>
<tr>
<td>First generation × enculturation</td>
<td>.023*</td>
</tr>
<tr>
<td>First generation × acculturation</td>
<td>-</td>
</tr>
<tr>
<td>Second generation × enculturation</td>
<td>-0.03</td>
</tr>
<tr>
<td>Second generation × acculturation</td>
<td>-.06</td>
</tr>
</tbody>
</table>

Note. Weights are derived from each step of the model. Main effects were sustained following inclusion of all interaction terms and therefore not further delineated. For Generation Status, third and higher generation is the comparison condition. * $p < .05$. ** $p < .01$. *** $p < .001$. 

CULTURE AND COLLEGE OUTCOMES
turation was positively associated with GPA for immigrant (first generation) students, but not students from other generational statuses (see Figure 1).

Next, we repeated the regression analyses using college self-efficacy as the criterion (see Table 3). In Step 1, SES again emerged as a significant positive predictor of college self-efficacy. Unlike the analyses for GPA, however, several other main effects were found when predicting college self-efficacy. First generation status, enculturation, and acculturation were all positively related to college self-efficacy indicating that higher generation status, higher enculturation orientation, and higher acculturation orientation were associated with higher levels of college self-efficacy. In Step 2, we did not find any significant interactions between generation status and either enculturation or acculturation in predicting college self-efficacy.

Post-Hoc Analysis

Typically, academic-related self-efficacy is strongly associated with positive academic outcomes. However, because we noted a main effect of generation status on self-efficacy and not GPA, we wondered if the college self-efficacy and performance link might be different across generation groups. Therefore, we conducted a post-hoc analysis to determine whether the relation between college self-efficacy and college performance (GPA) differed between first generation and later generation groups. To test this post-hoc hypothesis, we ran univariate analyses to assess the correlation between college performance separately for immigrant (first generation) students and then for students of all other generation statuses. As expected, we found that college self-efficacy was not significantly related to GPA for immigrants ($r = .13; p = .26$) but was significantly related to GPA for second generation and beyond students ($r = .29; p < .001$).

Discussion

The present study investigated the effects of demographic and cultural variables on academic outcomes among Mexican-American college students. Correlational analyses concluded higher generation status was significantly related to higher acculturation and lower enculturation, indicating time spent in the U.S. and level of adherence to the mainstream and Mexican cultures were related. Higher college

![Figure 1. Two-way interaction enculturation \times generation status predicting college performance. Note. Low Mexican Orientation indicates low enculturation. High Mexican Orientation indicates high enculturation. First-generation students are immigrants. Second- through fifth-generation students are U.S. born. College performance was measured by GPA.](image)
self-efficacy was related to higher enculturation, acculturation, and college GPA. This demonstrates the importance of considering culture in Mexican-American students’ belief that they can succeed in college as well as the important link between self-efficacy and academic outcomes. College self-efficacy and GPA were also positively related to perceived SES, demonstrating that when Mexican-American students perceive having more financial resources they also have more confidence in their college performance and perform better academically. We also concluded higher generation status correlated with higher GPA. This particular finding contributes to the contradictory literature on the role of generation status on academic outcomes. Rather, we found that only enculturation was associated with college performance and only for immigrant students. The interaction of acculturation and generation status had no significant effects on participants’ college performance. Thus, the findings from this study provide support for the notion that immigrant students may benefit from identifying with their Mexican identity to succeed in the new environment (Berry, Phinney, Kwak, & Sam, 2006).

A different trend was noted when predicting college self-efficacy. We found evidence to support our prediction that biculturalism would benefit all students. Both enculturation and acculturation significantly predicted college self-efficacy, indicating students with high levels of identification with both the mainstream and Mexican culture reported greater confidence in succeeding in college. However, we did not find any differential benefit of enculturation and acculturation by generation status in predicting college self-efficacy. Because college self-efficacy in this and other studies predicts the

<table>
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<tr>
<th></th>
<th>Variable</th>
<th>(R^2)</th>
<th>(\Delta R^2)</th>
<th>(B)</th>
<th>(SE)</th>
<th>(\beta)</th>
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<tr>
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<td>.01</td>
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<tr>
<td></td>
<td>Age</td>
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<td>.07</td>
<td>.28</td>
<td>.07</td>
<td>.20***</td>
</tr>
<tr>
<td></td>
<td>SES</td>
<td>.38</td>
<td>.16</td>
<td>.11</td>
<td>.13</td>
<td>.05</td>
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<tr>
<td></td>
<td>First generation acculturation</td>
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<td>.06</td>
<td>.20**</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Second generation enculturation</td>
<td>.30</td>
<td>.05</td>
<td>.30***</td>
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<table>
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<th>Variable</th>
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<th>(\Delta R^2)</th>
<th>(B)</th>
<th>(SE)</th>
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<td></td>
<td>First generation \times acculturation</td>
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<td>—</td>
<td>.09</td>
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<td>.12</td>
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<tr>
<td></td>
<td>Second generation \times enculturation</td>
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<td>.12</td>
<td>.16</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Second generation \times acculturation</td>
<td>—</td>
<td>—</td>
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</tbody>
</table>

Note. Weights are derived from each step of the model. Main effects were sustained following inclusion of all interaction terms and therefore not further delineated. For Generation Status, third and higher generation is the comparison condition. * \(p < .05\). ** \(p < .01\). *** \(p < .001\).
likelihood of attaining important academic outcomes (i.e., GPA and graduation; Gloria et al., 2005), this finding suggests a potential benefit to adopting a bicultural orientation for Mexican-American students. However, this benefit may not be accrued through a direct and immediate link to academic performance as indicated by the analyses showing no main effects of acculturation or enculturation on college performance. Instead, the benefit of biculturalism may indirectly influence academic outcomes by promoting students’ self-perceptions on social–cognitive variables (i.e., self-efficacy) that have been linked to academic performance. Future research might explore the effects of acculturation, enculturation, and their interactions with generation status on other variables related to college performance, such as motivation and outcome expectations.

Contrary to our prediction, we found a main effect of generation status on college self-efficacy. First-generation students reported lower levels of college self-efficacy than second-generation and beyond students. In retrospect, this result may have been anticipated given that, by definition, first generation students are in a novel situation when entering college and thus may not be as confident as later generation peers who may have other friends and family who attended college in the U.S. (White & Glick, 2000, p. 689). The families of the second- and later-generation students may already have acquired the resources necessary to navigate the U.S. educational system, building academic competence in these students (White & Glick, 2000). On the other hand, the parents of first generation students “do not have the resources—psychological, social, or financial—to guide their children’s journey” (p. 226), which in turn may restrict the development of Mexican immigrants’ academic self-efficacy (Suárez-Orozco, Suárez-Orozco, & Todorova, 2008).

We expected first- and second-generation students would outperform their later generation peers in college based on prior research (Hurtado-Ortiz & Gauvain, 2007; Rodriguez, 2002; Rumbaut & Portes, 2001). However, we did not find any benefit or detriment to college performance associated with generation status. Given this latter finding, perhaps college self-efficacy was a less salient predictor of college performance for recent immigrants than for later-generation students. Our post-hoc analysis found that college self-efficacy was unrelated to college performance for immigrant students but significantly correlated with college performance for second-generation and beyond students. Although tentative and speculative, collectively these findings suggest the social and cognitive mechanisms believed to be important for academic success among majority groups in the U.S. may operate differently for immigrants. Other factors besides self-efficacy (i.e., attitudes toward school, emotional well-being, family structure, and support) may play a more critical role in the academic achievement of first generation students (Suárez-Orozco et al., 2008).

The results suggest biculturalism may contribute to positive academic self-beliefs for Mexican-American college students, whereas for immigrant students only a strong Mexican identity may be important in determining college performance. Previous work indicated a strong ethnic identity was related to high self-esteem for Mexican-American students (Umaña-Taylor & Updegraff, 2007). Another explanation may be that exploring and accepting one’s cultural identity may motivate immigrant students to achieve their academic goals by reflecting on the sacrifices they and/or their parents have made (Fuligni et al., 2005). Indeed, the Mexican cultural value of familismo may play a role in Mexican immigrant students’ academic success, with students working hard to fulfill their parents’ dreams for their children’s educational progress in the U.S.

The results of this study also contradict some previous studies which showed immigrant students were more likely to embrace the mainstream culture (Schwartz, Pantin, Sullivan, Prado, & Szapocznik, 2006). This contradiction may support Padilla’s (2006) contention that the impact of acculturation and ethnic identity will differ depending on the specific characteristics of each individual.

Finally, we found enculturation had a negative association with generation status. This finding supports Portes and Rumbaut’s (2001) prediction that longer contact with a host culture leads to a decline in ethnic identification and an increase in mainstream identity. Given that we focused only on academic outcomes, it is unclear from our study if lower ethnic identification for later-generation students has an erosive
effect on their psychological adjustment as some authors contend (Organista, 2007; Portes & Rumbaut, 2001; Schwartz et al., 2006).

The limitations of the present study should be noted when attempting to apply and extend the current findings. First, the study was cross-sectional and thus cannot contribute to causal explanations of the studied variables. In addition, findings related to acculturation should be considered cautiously, because the acculturation subscale used had a low coefficient alpha. Further, the study relied on self-report for students’ GPA. Thus, we cannot rule out source effects as an explanation for interrelations among variables. Subsequent studies should include objective measures of achievement.

Concurrently, there are other factors that may contribute to the academic performance of students other than acculturation and generation status, and these should be considered for future research and application. The amount of work (e.g., full-time or part-time employment) that students undertake for their own sustainability may play a role in students’ level of academic engagement (Salinas & Llanes, 2003) and therefore should be considered as an impacting variable. In addition, the level of receptiveness of the institution toward these students and the students’ involvement on campus may further implicate students’ ability to participate in their academic activities fully (Castellanos & Gloria, 2007). Finally, language proficiency in Spanish and English may play a role in the students’ academic success (Kim & Chao, 2009).

The context of the institution where the participants of this study were recruited should also be noted. Although a unique strength of this study was that students attended a Hispanic-serving institution comprised of 86% Latinas/os and resided near the U.S.-México border in the Southwest, this environmental context may have played a role in students’ acculturation and enculturation process. Thus, a replication of this study with Mexican-American students attending a predominantly White institution may yield different results.

**Implications for Practice and Future Research**

Educators and practitioners should consider the relation of biculturalism and generation status as contenders for academic performance among Mexican-American students. Primarily, immigrant students may have closer ties to their cultural community. This cultural enclave serves as a buffer to overcome the transitional stress an immigrant student may undergo when moving to a new environment. In this manner, the success of these newcomer students does not only rely on maintaining their ethnic identity, but also on the support system provided by parents, older siblings, and mentors (Suárez-Orozco et al., 2008). Additionally, the findings in this study converge with others maintaining that identification with one’s ethnic group may not only assist immigrant students in their academic performance (Fuligni et al., 2005; Kim & Chao, 2009), but also help them cope with different societal stressors (e.g., racism, discrimination; Quintana, Herrara, & Nelson, 2010). U.S.-born students, in contrast, may benefit from professional assistance in helping them develop a strong college self-efficacy, which may prove beneficial for their academic performance. Nevertheless, we need to be aware that each immigrant and non-immigrant individual will differ in their acculturation process (Padilla, 2006).

There are many opportunities for future research to examine the academic outcomes of Mexican-American college students. Given the noted discrepancy between Mexican-American men and women in college (Saenz & Ponjuan, 2009), future research should assess the influence of gender roles on academic outcomes. Current anti-immigrant sentiments may increase minority stress and discrimination experienced by Mexican-American college students, particularly immigrant students. Thus, constructs of ethnicity-related stress such as stereotype threat and perceived discrimination may play a role on students’ academic outcomes. Other dimensions of cultural orientation aside from acculturation and enculturation should be considered in examining Mexican Americans’ college experience. For instance, the Latino/a Values Scale taps into Latina/o cultural beliefs (Kim, Soliz, Orellana, & Alamilla, 2009) and could help researchers understand how adherence to Latino cultural values plays a role on Mexican-American students’ education.
References


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