

The Experience of College Challenges Among Chinese Americans: Variation by Migration Status

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ABSTRACT. The current investigation examined the experience of college challenges in 112 American-born, 121 early immigrant, and 110 late immigrant Chinese American students. Due to differential acculturation, it was hypothesized that late immigrants would encounter the most difficulties and American-born Chinese the least. Using the 13-domain Inventory of College Challenges for Ethnic Minority Students, we found that late immigrants reported more problems than American-born Chinese on six academic, social, and general living domains and experienced more problems than early immigrants on two academic and social domains. Additionally, early immigrants fared worse than American-born Chinese on two social and general living domains. Service implications, particularly for late immigrants, are discussed. *[Article copies available for a fee from The Haworth Document Delivery Service: 1-800-HAWORTH. E-mail address:*

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The American population is highly diverse today; as one-third is, non-white (U.S. Bureau of Census, 2000) and more than 11% are immigrants (U.S. Bureau of Census, 2003). Although Asians comprise only 4% of the American population, they are the fastest growing group whose size increased by 72% between 1990 and 2000 (US Census Bureau, 2002). A major contributor to their growth is migration, as more than one-quarter of immigrants coming to the United States originate from Asia (US Census Bureau, 2003), and two-thirds of Asian Americans are immigrants (US Census Bureau, 2002).

Asian Americans also comprise the most educated group in the United States, as 44% hold a bachelor's degree compared to 28% of Whites, 13.4% of African Americans, and 8.1% of Latinos (US Census Bureau, 2002). Scholars have argued that education is a culturally sanctioned method for Asian Americans to achieve financial security (Sue & Okazaki, 1990), and to bring honor to their parents (Fulgini, Tseng, & Lam, 1999). In 1998, among 18 to 21 year olds, 70% of Asian Americans were attending college as compared to only half of Whites (U.S. Census Bureau, 2002). At the site of the current investigation, a large public university in California, Asians represented the largest group at the time of the study (39.4%), surpassing the number of White students (32.4%, Office of Student Research, 1999). However, empirical studies have shown that Asian Americans suffer from tremendous parental pressure to succeed (Lee & Ying, 2001; Liu, 1998) that leads to depression (Castro & Rice, 2003). In a recent study of Chinese Americans, the largest Asian group in the United States, we reported a range of academic, social, and general college life challenges they face (Ying, Lee, & Tsai, 2004). The current study extends this work by examining intra-group variation, i.e., whether early immigrants (those arriving by age 12), late immigrants (those arriving after age 12), and American-born Chinese differ on the level of college challenges.

SIGNIFICANCE

The study is important for several reasons. Given Chinese Americans' significant presence on American campuses and its diversity (i.e.,

two-thirds are immigrants, U.S. Census Bureau, 2002), research is needed to better understand the experiences of Chinese American college students of varying migration statuses. Furthermore, documenting their college challenges is important because, consistent with the theory of stress and coping (Lazarus, 1976), research has shown that these stressors result in decline in well-being (Smith & Betz, 2002; Vredenburg, O'Brien, & Krames, 1988; Wong & Whitaker, 1994). Finally, identification of subgroup(s) that experience the greatest stressors paves the way for the implementation of interventions that effectively target their needs (Atkinson & Gim, Yeh & Wang, 2000).

Migration Status and College Challenges

Migration status has been associated with acculturation level. In an earlier study with the current sample of Chinese American college students, we found immigrants who arrived by the age of 12 (early immigrants) embraced American culture significantly more than those who arrived after age of 12 (late immigrants), and both were less acculturated than American-born Chinese in the domains of language, ethnicity of social network, recreational activities, and self identification (Tsai, Ying, & Lee, 2000). Research has shown that unfamiliarity with American culture is a significant stressor among minority college students (Zea, Reisen, Beil, & Caplan, 1997), and more acculturated Asian American students enjoy a stronger connection to campus life (Lee & Davis, 2000). Furthermore, Chinese American college students who immigrated within the last six years have been found to report poorer adjustment, greater unhappiness and anxiety than their American-born peers and those immigrants who arrived more than six years ago (Sue & Zane, 1985).

In a previous study, we identified three major areas of college challenges faced by Chinese Americans (Ying et al., 2004). These were academic challenges (including academic demands, unclear career direction, difficulty with academic expression, inability to study, and unfamiliarity with campus), social challenges (including racism and cross-cultural communication, social isolation, romantic difficulties, homesickness, and pressure to use substances), and general living challenges (including counseling needs, financial worry, and housing (Ying et al., 2004)). The severity of these challenges is likely to vary by migration status.

With regard to academic challenges, English fluency is an important resource for success. Because immigrants are less fluent in English than American-born Chinese, and late immigrants are also less competent in

the English language than early immigrants (Tsai et al., 2000), we hypothesized that late immigrants would have the most academic difficulties, followed by early immigrants, with American-born Chinese reporting the least.

In the social realm, Abe and Zane (1990) found that non-native born Asian American college students experience more interpersonal distress than American-born Asian students. In addition, immigrant Chinese Americans encounters more racism than American-born Chinese students (Ying, Lee, & Tsai, 2000). Furthermore, late immigrants are less acculturated in the social realm than early immigrants and American-born Chinese (Tsai et al., 2000). Thus, we hypothesized that late immigrants would experience the most social challenges, followed by early immigrants, and American-born Chinese.

With regard to general living challenges, such as housing and counseling needs, because of their relative unfamiliarity with the United States in general and the American campus life in particular (Tsai et al., 2000), we postulated that late immigrants would encounter more difficulties than the other two groups, and early immigrants would experience more problems than American-born Chinese. Altogether, it is likely that late immigrants would have the most difficulties, American-born Chinese the least, and early immigrants would occupy an intermediate position.

Social Desirability, Gender, Year in School, Socioeconomic Status and College Challenges

Several other factors may also contribute to the experience of college challenges. Research has shown that the desire for social approval affects the subjective reporting of problems (Crown-Marlow, 1960, 1964). Among college students, those who score higher on social desirability report lower levels of depression and anxiety (Tanaka-Matsumi, & Kameoka, 1986). Similarly, the desire for social approval and psychological defensiveness are likely to affect the reporting of college challenges in our study. Thus, we hypothesized that students with a greater need to deny undesirable social traits would report fewer problems.

Additionally, scholars have found that compared to men, women experience more stress, ruminate over problems more, and feel less able to control their lives, resulting in higher levels of depression (Nolen-Hoeksema, Larson, & Grayons, 1999). Compared to their male peers, college women view themselves more negatively (Holmbeck & Hill, 1988), report higher levels of stress in general (Hamilton & Fagot,

1988; Hudd, Dumlao, Erdmann-Sager, Murray, Phan, Soukas, & Yokozuka, 2000), and in the social realm in particular (Ostrow, Paul, Dark, & Behrman, 1986). Little research has specifically studied gender differences and college stress among Chinese American students. However, the literature has documented that Chinese American families prefer sons and accord the former more privileges and responsibilities than daughters (Bond & Hwang, 1986; Shon & Ja, 1982). In addition, Chinese American male college students have been found to enjoy a higher level of self-esteem than their female peers (Tsai, Ying, & Lee, 2001). Thus, we hypothesized that Chinese American women may feel more vulnerable to college challenges than men.

Furthermore, more advanced students have had more opportunities to familiarize themselves with and adapt to campus life than lowerclassmen/women and thus generally experience fewer problems (Ying et al., 2004). However, upperclassmen/women may have more difficulty with a career direction than the younger cohort because they were closer to graduation (Ying et al., 2004). It was hypothesized that, in general, more years in school would be associated with fewer college challenges.

Finally, students with a higher socioeconomic status are likely to have family members who are college graduates and in a position to prepare and support them for that experience (Antrobus & Dobbelaer, 1988; Ying et al., 2004). Thus, we hypothesized that higher socioeconomic status would be a protective factor against college challenges.

Study Hypotheses

In sum, we hypothesized that American-born Chinese students would report the least number of college challenges, and early immigrants would report fewer problems than late immigrants. In addition, we controlled for the contribution of denial of undesirable social traits, gender, year in school, and socioeconomic status.

METHODS

Sample

The sample consisted of 353 Chinese American college students at a major public university in the western United States. As Table 1 shows, 122 were born in the United States, 121 were early immigrants who arrived before or at age 12, and 110 were late immigrants who arrived after

the age of 12. Variation on demographic characteristics by migration status was tested using analyses of variance with Scheffe posthoc test and chi-square tests. The three groups did not vary by gender or year in college. However, based on Hollingshead's (1957) method of calculating socioeconomic status (SES) using father's education and occupation (where the possible range of scores is from 11 to 77, with 11 being the highest socioeconomic level), American-born Chinese were significantly better off economically (mean = 23.38, SD = 13.74) than the early and late immigrants (mean = 31.23, SD = 15.40 and mean = 31.38, SD = 15.31, respectively, $p < .05$). Additionally, late immigrants were older than American-born Chinese and early immigrant students (mean = 21.14, SD = 2.14 versus mean = 19.71, SD = 1.48 and mean = 19.93, SD = 1.31, respectively). The overwhelming majority of the sample was single, regardless of migration status. In terms of academic major, late immigrants were more likely to major in engineering and computer science (40%) than American-born Chinese and early immigrants (13.9% and 24.8%, respectively, $p < .05$), and early immigrants were also more likely to be in these majors than American-born Chinese ($p < .05$). In contrast, American-born Chinese students were more likely to be studying the physical sciences (25.4%) than late immigrants (10.9%, $p = .05$). Finally, American-born students also reported a lower grade point average than late immigrants (mean = 3.11, SD = .47 versus mean = 3.28, SD = .52, $p < .05$, where 4 = A, 3 = B, 2 = C, and 1 = D).

MEASURES

College Challenges were measured by the 52 item Inventory of College Challenges for Ethnic Minority Students (ICCEMS, Ying et al., 2004). Participants were asked to indicate the degree to which each ICCEMS item happened to them in the last six months. The responses were coded as 0-not at all, 1-a little, 2-somewhat, 3-often, and 4-all the time. A previous study identified 13 domains of challenges (Ying et al., 2004). Five were academic challenges: Academic Demands (sample item: "You felt you could not keep up with the academic demands," Unclear Career Direction (sample item: "You felt pressure to make a career choice"), Academic Expression (sample item: "You felt you could not express yourself adequately in writing papers"), Inability to Study (sample item: "You have been unable to study when you wanted to for as long as you wanted to"), and Unfamiliarity with Campus (sample item: "You worried about enrolling in classes you want/need"). Five

TABLE 1. Descriptives of Demographic Variables by Migration Status

| | American-Born | Early | Late | Significant |
|----------------------------------|---------------|--------------|--------------|----------------------------|
| | Chinese (ABC) | Immigrants | Immigrants | Differences* |
| | (N = 122) | (N = 121) | (N = 110) | |
| % Male | 48.4 | 46.3 | 53.4 | |
| Year in College | 2.60(1.20) | 2.59(1.14) | 2.87(1.18) | |
| Socioeconomic Status | 23.38(13.74) | 31.23(15.40) | 31.38(15.31) | ABC < Others |
| Age | 19.71(1.48) | 19.93(1.31) | 21.14(2.14) | Late > Others |
| % Single | 98.4 | 97.5 | 92.9 | |
| Academic Major (%) | | | | |
| Social Sciences and Humanities | 29.5% | 30.6% | 20.0% | |
| Engineering and Computer Science | 13.9% | 24.8% | 40.0% | Late > Others, Early > ABC |
| Physical Sciences | 25.4% | 15.7% | 10.9% | ABC > Late |
| Business/Economics/Mathematics | 13.9% | 10.7% | 16.4% | |
| Undeclared | 17.2% | 18.2% | 12.7% | |
| Grade Point Average | 3.11(.47) | 3.14(.49) | 3.28(.52) | ABC < Late |

* $p \leq .05$, two tailed tests

were social challenges: Racism and Cross-Cultural Communication (sample item: “You felt you were subject to racial discrimination,” and “You had trouble communicating with faculty of another cultural background”), Social Isolation (sample item: “You felt isolated from the college community”), Romantic Difficulties (sample item: “You broke up a romantic relationship”), Homesickness (sample item: “You felt lonely because you missed your family”), and Pressure to Use Substances (sample item: “You felt pressure to drink when you didn’t want to”). The remaining three were general living challenges: Counseling Needs (sample item: “You had difficulty finding a counselor”), Financial Worry (sample item: “You felt financial pressures regarding how to pay for tuition, books, etc.”), and Housing Problem (sample item: “You had trouble finding housing you liked”). As the ICCEMS domain subscales were based on varying numbers of items, mean subscales score were used in further analyses. The range of possible scores was from 0 to 4. The overall ICCEMS sum score was created by summing the 13 mean subscale scores. Thus the scores ranged from 0 to 52. Internal and test-retest reliability, and criterion and construct validity of the domain subscales and the overall ICCEMS scale were adequate and have been reported previously (Ying et al., 2004).

Denial of Undesirable Social Traits was measured by seven items on the Crowne-Marlowe Social Desirability Scale (Crowne & Marlowe, 1960, 1964). Students were asked whether these statements concerning their personal attitudes and traits were true (coded as 0) or false (coded as 1): "On occasion I have had doubts about my ability to succeed in life;" "I sometimes feel resentful when I don't get my way;" "I sometimes try to get even, rather than forgive and forget;" "At times I have really insisted on having things my own way;" "There have been occasions when I felt like smashing things;" "There have been times when I was quite jealous of the good fortune of others;" and "I am sometimes irritated by people who ask favors of me." The responses were summed, yielding a range of possible scores from 0 to 7, with higher scores indicating a stronger motive to deny socially undesirable traits. In the current study, the internal alpha reliability was .57, and one month test-retest reliability on a subsample was .74 ($n = 55$).

Demographics. The Demographic Questionnaire assessed migration status (American-born, early or late immigrant), gender, years in school, socioeconomic status (SES, as calculated using Hollingshead's method, 1957, see *Sample* for discussion), age, marital status, academic major, and grade point average.

PROCEDURE

Participants were recruited for a study on the adjustment of Chinese American students. Recruitment occurred through the psychology subject pool, announcement made at classes and Asian American student organization meetings, and flyers posted throughout campus, and by word of mouth. Participants signed a consent form and completed the paper-pencil questionnaires, including Inventory of College Challenges for Ethnic Minority Students, the Denial of Undesirable Social Traits subscale of the Crowne-Marlowe Social Desirability Scale, and the Demographics questionnaire.

RESULTS

Variation by Migration Type Using Bivariate Tests. Before using multivariate analyses, The hypothesized variation of the challenge variables by migration status was first tested using analysis of variance with Scheffe posthoc tests (two-tailed tests). As Table 2 shows, late immigrants

reported more difficulties with academic expression (mean = 2.09, SD = 1.18) than American-born Chinese (mean = 1.68, SD = 1.04) and early immigrant Chinese Americans (mean = 1.69, SD = 1.24, $p = .03$, in both cases). They also reported more difficulties with racism and cross-cultural communication (mean = 1.16, SD = .88) than the others (mean = .55, SD = .64 for American-born Chinese and mean = .75, SD = .78 for early immigrants, $p < .001$ in both cases). Additionally, late immigrants were more isolated socially (mean = 1.48, SD = .99) than American-born Chinese (mean = 1.11, SD = .79, $p = .005$) and early immigrant students (mean = 1.21, SD = .78, $p = .06$). They were also significantly more homesick (mean = 1.52, SD = 1.01) than their American-born Chinese (mean = 1.13, SD = .82, $p = .005$) and early immigrant peers (mean = 1.24, SD = .86, $p = .05$). Furthermore, American-born students reported fewer counseling needs (mean = 1.12, SD = 1.03) than early and late immigrants (mean = 1.51, SD = 1.18, $p = .03$, and mean = 1.66, SD = 1.12, $p = .001$, respectively). They also experienced fewer challenges overall than late immigrants (mean = 15.59, SD = 5.58 and mean = 18.16, SD = 7.23, $p = .01$). Finally, the three groups did not vary on denial of socially undesirable traits.

Academic Challenge Models. Next, we conducted multiple regressions to test the effect of migration status on college challenges, with type of challenge serving as the criterion variable, and migration status and the control variables as the predictor variables. We also conducted exhaustive comparisons of the three migration statuses (American-born Chinese versus early immigrants, American-born Chinese versus late immigrants, and early immigrants versus late immigrants). Tables 3 to 5 present, respectively, the results of the Academic, Social, and General Living Challenge models. One-tailed tests were used to test the hypothesized relationships, unless otherwise noted. The *Academic Demands Challenge* model was significant (Adjusted R-Squared = .06, $F[6,346] = 4.87$, $p < .001$). Contrary to expectation, American-born Chinese reported more difficulty with academic demands than early immigrants (standardized beta = .14, $p = .02$, two-tailed test). Among the control variables, a lower denial of undesirable social traits and fewer years in school were associated with more academic problems (standardized beta = $-.20$, $p < .001$, and standardized beta = $-.14$, $p = .005$, respectively). The *Career Direction* model was also significant (Adjusted R-Squared = .09, $F[6,346] = 6.69$, $p < .001$). No difference was found by migration status. Among the control variables, those with a stronger denial of undesirable social traits, males, and lowerclassmen/women reported fewer problems (standardized beta = $-.15$, $p = .002$, stan-

TABLE 2. Descriptives of Study Variables by Migration Status

| | American-Born Chinese (ABC) (N = 122) | Early Immigrants (N = 121) | Late Immigrants (N = 110) | Significant Differences* |
|---|---|----------------------------------|---------------------------------|-----------------------------|
| Mean (SD) for | | | | |
| <u>Academic Challenges</u> | | | | |
| Academic Demands | 2.16 (.92) | 1.90 (.88) | 1.96 (1.03) | |
| Unclear Career Direction | 2.29 (1.02) | 2.04 (.98) | 2.07 (.97) | |
| Academic Expression | 1.68 (1.04) | 1.69 (1.24) | 2.09 (1.18) | Late > Others* |
| Inability to Study | 1.65 (.91) | 1.64 (1.04) | 1.40 (1.01) | |
| Unfamiliarity with Campus | .95 (.68) | 1.02 (.74) | 1.09 (.74) | |
| <u>Social Challenges</u> | | | | |
| Racism and Cross-Cultural Communication Difficulty | .55 (.64) | .75 (.78) | 1.16 (.88) | Late > Others* |
| Social Isolation | 1.11 (.79) | 1.21 (.78) | 1.48 (.99) | Late > Others* |
| Romantic Difficulties | .76 (.90) | .88 (1.13) | .94 (.98) | |
| Homesickness | 1.13 (.82) | 1.24 (.86) | 1.52 (1.01) | Late > Others* |
| Pressure to Use Substances | .14 (.29) | .15 (.38) | .18 (.57) | |
| <u>General Life Challenges</u> | | | | |
| Counseling Needs | 1.12 (1.03) | 1.51 (1.18) | 1.66 (1.12) | ABC < Others* |
| Financial Worry | 1.12 (.85) | 1.32 (.92) | 1.38 (.94) | |
| Housing Problem | .99 (.90) | 1.07 (.95) | 1.13 (.97) | |
| <u>Overall Challenges</u> | 15.59 (5.58) | 16.39 (6.49) | 18.16 (7.23) | ABC < Late** |
| <u>Control Variables</u> | | | | |
| Denial of | | | | |
| Undesirable Traits | 1.91 (1.55) | 2.10 (1.67) | 1.92 (1.64) | |

* $p \leq .05$, $p \leq .01$, two tailed tests

standardized beta = $-.13$, $p = .007$, and standardized beta = $.21$, $p < .001$, respectively). The *Academic Expression* model was significant, with Adjusted R-Squared = $.07$, $F[6,346] = 5.36$, $p < .001$. As expected, American-born Chinese and early immigrants reported fewer problems than late immigrants (standardized beta = $-.17$, $p = .004$, and standardized beta = $-.19$, $p = .001$, respectively). Additionally, males and upperclassmen/women reported fewer problems (standardized beta = $-.21$, $p < .001$, and standardized beta = $-.11$, $p = .02$, respectively). The *Inability to Study* model was significant (Adjusted R-Squared = $.05$, $F[6,346] = 4.11$, $p = .001$). As hypothesized, American-born Chinese had less difficulty than late immigrants (standardized beta = $-.12$, $p = .03$). Also, those with a higher tendency to deny undesirable social traits and males reported fewer problems (standardized beta = $-.18$, $p <$

TABLE 3. The Prediction of Academic Challenges

| | Academic Demands | Career Direction | Academic Expression | Inability to Study | Unfamiliar Campus |
|-------------------------------------|------------------|------------------|---------------------|--------------------|-------------------|
| Adjusted R-Square | .06 | .09 | .07 | .05 | .09 |
| F (6, 346) | 4.87, p < .001 | 6.69, p < .001 | 5.36, p < .001 | 4.11, p = .001 | 6.87, p < .001 |
| <u>Standardized Beta for</u> | | | | | |
| American-borns vs. Early Immigrants | .14* | .11 | .02 | .02 | -.04 |
| American-borns vs. Late Immigrants | .10 | .11 | -.17** | -.12* | -.11* |
| Early vs. Late Immigrants | -.04 | .01 | -.19*** | .11 | -.07 |
| Denial of Undesirable Traits | -.20*** | -.15** | -.03 | -.18*** | -.23*** |
| Male vs. Female | -.08 | -.13** | -.21*** | -.12* | -.08 |
| Socioeconomic Status | .08 | -.03 | .08 | .08 | .04 |
| Year in College | -.14** | .21*** | -.11* | -.08 | -.22*** |

*p ≤ .05, **p ≤ .001, ***p ≤ .001 one-tailed tests; †p ≤ .05, two-tailed tests

.001 and standardized beta = $-.12$, $p = .02$, respectively). Finally, the *Unfamiliarity with the Campus* was significant, with Adjusted R-Squared = $.09$, $F[6,346] = 6.87$, $p < .001$. As hypothesized, American-born Chinese reported fewer problems than late immigrants in this area (standardized beta = $-.11$, $p = .04$). Among the control variables, those with a greater tendency to deny socially undesirable traits and lowerclassmen/women also reported fewer problems (standardized beta = $-.23$ and standardized beta = $-.22$, respectively, $p < .001$ in both cases).

Social Challenge Models. Table 4 presents the results of the Social Challenge models. As before, one-tailed tests were used. The *Racism and Cross-Cultural Communication* model was significant (Adjusted R-Squared = $.10$, $F[6,346] = 7.37$, $p < .001$). As hypothesized, all three migration status groups varied from one another. American-born Chinese reported fewer problems with racism and cross-cultural communication than early and late immigrants (standardized beta = $-.11$, $p = .03$ and standardized beta = $-.34$, $p < .001$, respectively), and early immigrants experienced less difficulty than late immigrants (standardized beta = $-.24$, $p < .001$). Among the control variables, those with a stronger tendency to deny undesirable social traits also reported fewer problems with racism and cross-cultural communication (standardized beta = $-.12$, $p = .01$). The *Social*

TABLE 4. The Prediction of Social Challenges

| | Racism and Cross-Cultural Communication | Social Isolation | Romantic Difficulties | Homesickness | Pressure to use Substances |
|--|---|---------------------|--------------------------|----------------|----------------------------------|
| Adjusted R-Square: | .10 | .05 | .04 | .10 | .01 |
| F (6, 346) | 7.37, p < .001 | 4.05, p = .001 | 3.46, p = .002 | 7.14, p < .001 | 1.55, n.s. |
| Standardized Beta for | | | | | |
| American-borns vs. Early Immigrants | -.11* | -.04 | -.07 | -.07 | -.02 |
| American-borns vs. Late Immigrants | -.34*** | -.18**-.09 | -.23*** | -.04 | |
| Early vs. Late Immigrants | -.24*** | -.14** | -.02 | -.17** | -.02 |
| Denial of Undesirable Traits | -.12* | -.17*** | .14** | -.19*** | -.13** |
| Male vs. Female | .01 | -.04 | -.15** | -.09* | .05 |
| Socioeconomic Status | .05 | .08 | -.05 | -.02 | .01 |
| Year in College | -.02 | -.01 | .09 | -.20*** | .08 |

*p ≤ .05, **p ≤ .01, ***p ≤ .001, one-tailed tests

Isolation model was also significant (Adjusted R-Squared = .05, F[6,346] = 4.05, p = .001). As hypothesized, American-born Chinese and early immigrants were less isolated than late immigrants (standardized beta = -.18, p = .002 and standardized beta = -.14, p = .01, respectively). Those with a greater denial of undesirable social traits reported fewer problems (standardized beta = -.17, p = .001). The *Romantic Difficulties* model was significant, with Adjusted R-Squared = .04, F[6,346] = 3.46, p = .002. As expected, those with a lower tendency to deny undesirable social traits and females reported more difficulties in this area (standardized beta = -.14 and standardized beta = -.15, respectively, p = .004 in both cases). The *Homesickness* model was significant (Adjusted R-Squared = .10, F[6,346] = 7.14, p < .001). As hypothesized, American-born Chinese and early immigrants had less difficulty than late immigrants (standardized beta = -.23, p < .001 and standardized beta = -.17, p = .003, respectively). Among the control variables, those with a lower tendency to deny undesirable social traits, females, and lowerclassmen/women also reported more problems with homesickness (standardized beta = -.19, p < .001, standardized beta = -.09, p = .04, and standardized beta = -.20, p < .001, respectively). Finally, the *Pressure to Use Substances* model was not significant. Only de-

TABLE 5. The Prediction of General Living Challenges and Overall Challenges

| | Counseling Needs | Financial Worry | Housing | Overall |
|--|---------------------|--------------------|---------------|----------------|
| Adjusted R-Square: | .07 | .05 | .05 | .13 |
| F (6, 346) | 5.06, p < .001 | .16, p < .001 | .75, p = .001 | 9.23, p < .001 |
| <u>Standardized Beta for</u> | | | | |
| American-borns vs. Early Immigrants | -.14** | -.07 | -.04 | -.04 |
| American-borns vs. Late Immigrants | -.20*** | -.10* | -.09 | -.18** |
| Early vs. Late Immigrants | -.06 | -.03 | -.06 | -.14** |
| Denial of Undesirable Traits | -.14** | -.08 | -.12** | -.27*** |
| Male vs. Female | -.08 | -.13** | -.09* | -.17*** |
| Socioeconomic Status | .12* | .16** | .02 | .10* |
| Year in College | -.01 | .05 | -.20*** | -.08* |

*p ≤ .05, ** p ≤ .01, p ≤ .001, one-tailed tests

nial of socially undesirable traits was significantly predictive (standardized beta = $-.13$, $p = .01$) of fewer problems in this area.

General Living Challenge and Overall Challenge Models. Table 5 presents the results of the General Living Challenge models. Again, one-tailed tests were used. The *Counseling Needs* model was significant (Adjusted R-Squared = $.07$, $F[6,346] = 5.06$, $p < .001$). As hypothesized, American-born Chinese and early immigrants reported fewer counseling needs than late immigrants (standardized beta = $-.14$, $p = .01$ and standardized beta = $-.20$, $p < .001$). Among the control variables, a lower tendency to deny socially undesirable traits and a higher socioeconomic background were predictive of fewer counseling needs (standardized beta = $-.14$, $p = .003$ and standardized beta = $.12$, $p = .01$ respectively). The *Financial Worry* model was also significant (Adjusted R-Squared = $.05$, $F[6,346] = 4.16$, $p < .001$). As hypothesized, American-born Chinese had less financial worry than late immigrants (standardized beta = $-.10$, $p = .05$). Females and those from a poorer socioeconomic background reported more financial worry (standardized beta = $-.13$, $p = .01$ and standardized beta = $.16$, $p = .002$). The *Housing Problem* model was significant, with Adjusted R-Squared = $.05$, $F[6,346] = 3.75$, $p = .001$. American-born Chinese reported margin-

ally less difficulties than late immigrants (standardized beta = $-.09$, $p = .06$). Also as expected, those with a lower tendency to deny undesirable social traits, females, and lowerclassmen/women reported more difficulties in this area (standardized beta = $-.12$, $p = .01$, standardized beta = $-.09$, $p = .04$, and standardized beta = $-.20$, $p < .001$, respectively). Finally, the *Overall Challenges Model* was significant (Adjusted R-Squared = $.13$, $F[6,346] = 9.23$, $p < .001$). As hypothesized, American-born Chinese and early immigrants had less difficulty than late immigrants (standardized beta = $-.18$, $p = .002$ and standardized beta = $-.14$, $p = .01$, respectively). Among the control variables, those with a lower tendency to deny socially desirable traits, females, those from a lower socioeconomic background, and the lowerclassmen/women reported more challenges (standardized beta = $-.27$, $p < .001$; standardized beta = $-.17$, $p < .001$; standardized beta = $.10$, $p = .02$; and standardized beta = $-.08$, $p = .05$, respectively).

DISCUSSION

Variation on College Challenges by Migration Status

The amount of challenges encountered by the three groups of students generally ranged between 1-a little and 2-somewhat, suggesting a modest level of problems (see Table 1). Supporting our hypothesis, the most prominent difference in college challenges occurred between late arriving immigrants and American-born Chinese. The regression models showed that late immigrants fared worse than American-born Chinese on six academic, social, and general life challenge domains: academic expression, racism and cross-cultural communication, social isolation, homesickness, counseling needs, housing, and overall challenges. They also reported more problems than early immigrants in four academic and social areas: academic expression, racism and cross-cultural communication, social isolation and homesickness, and the overall level of difficulties. Thus, late immigrants constitute the group most in need of assistance. In contrast, early immigrants fared worse than American-born Chinese in only two areas: racism and cross-cultural communication and counseling needs, suggesting that migration by age 12 held few disadvantages over being native-born with regard to the challenges one might face at college.

In spite of their encountering many more difficulties, late immigrants achieved a better grade point average than American-born students (see

Table 1). This is consistent with previous research that showed immigrants to be more academically motivated than their American-born peers (Tseng, 2004), persevering to compensate for their limited acculturation in general, and lower language skills in particular (Stevensen & Lee, 1990; Sue & Zane, 1985). Similarly, the finding that early immigrants reported fewer academic demands than American-born students was likely to be due to the latter's greater motivation (Tseng, 2004). This suggests that with increasing acculturation to majority American culture, Chinese Americans will adhere less to the traditional values of perseverance and hard work (Liu, 1998; Tseng, 2004), which deserves further study.

Service Implications

While it is laudable that late immigrant students are academically succeeding in spite of fewer objective resources, they constitute the group most in need of assistance. However, due to cultural values of stigma and privacy, they are also very unlikely to utilize existing campus mental health services (Atkinson & Gim, 1989; Yeh & Wang, 2000). Thus, non-traditional interventions should be considered. Recently, Yeh and Wang (2000) found that 95% Chinese American college students would turn to their friends for support. Since the overwhelming majority of late immigrants (87.3%) have a social network that comprises entirely of co-ethnics (Ying, Lee, Tsai, Lee, & Tsang, 2001), other Chinese students may be in the best position to offer assistance. We concur with Yeh and Wang's (2000) suggestion that Chinese American student groups should collaborate with university counseling centers to offer peer support. While many campuses offer such peer counseling programs, we are not aware of any that target specific ethnic groups nor any that take into account migration status. Based on our study findings, we further recommend that returning American-born Chinese and early immigrant students be recruited to serve as big brothers/sisters to late immigrant freshmen. Such an intervention would be culturally more acceptable to late immigrants in reducing their social isolation and facilitating their adjustment to campus life.

Control Variables

Among the control variables, denial of undesirable social traits significantly predicted fewer problems in 11 of the 13 challenge domains,

and also on amount of overall challenges. Recent research has suggested that denial of undesirable social traits is an Asian cultural value, as Asian American students endorse it more than White students (Middleton & Jones, 2000). However, in the present study, we failed to find variation in endorsement across the three groups who varied on acculturation level. Future research should assess the meaning of denial of undesirable social traits in Chinese Americans.

Women reported more problems than men on 7 of the 13 challenge domains and on overall challenges, supporting the literature showing greater distress in college women than their male peers (Hamilton & Fagot, 1988; Hudd et al., 2000). This suggests the importance of reaching out to women. Our earlier recommendation that returning students be recruited to assist newcomers is especially likely to be welcome by women who are more socially-oriented than men (Gilligan, 1982).

Consistent with our hypothesis, more advanced students reported fewer problems on 6 out of the 13 challenge domains, mostly in the academic area. This also supports our recommendation to involve them to orient and assist newly arrived Chinese American students. As expected, more advanced students reported greater uncertainty with career direction, probably because they were closer to graduation. Socioeconomic status did not influence challenges in the academic and social realms, but students with fewer financial resources had greater counseling needs, financial worry, and overall challenges. This suggests the need for financial aid and loans.

Study Limitations and Directions for Future Research

Several study limitations deserve mention. First, the study was conducted at a campus where the size of the Asian student population surpassed that of Whites (39.4% versus 32.4%, Office of Student Research, 1999). Such a setting may reduce feelings of alienation and confusion that minority students are more likely to experience at less diverse campuses (Zea et al., 1997). Thus, the level of challenges reported here may not be generalizable to other universities, and deserves study. Second, the study utilized a sample of convenience. As such, it is possible that Chinese Americans students who had the most difficulty and/or the greatest reluctance to reveal them may have declined participation. Future research should recruit a more representative sample. Third, the experience of academic challenges is likely to vary by the time of the semester, with midterm and finals representing the most stressful periods. This should be addressed in future research. Fourth, while the cur-

rent study assessed variation in college challenges across three groups of Chinese Americans, it did not examine their mental health consequences. For instance, it is possible that, due to traditional Confucian emphasis on academic excellence (Bond & Hwang, 1986), college challenges may pose the greatest threat to the self-concept and well-being in the least acculturated late arriving immigrant Chinese Americans. This deserves empirical study. Finally, as noted above, outreach efforts are needed to assist this group who, in spite of their strong academic performance, face the greatest number of problems among Chinese American college students. These programs should also be empirically evaluated for effectiveness.

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