

ABSTRACT

Title of Document: PARENTAL INVOLVEMENT OF ASIAN AMERICAN IMMIGRANT MOTHERS: INVESTIGATING SOCIAL CAPITAL, ENGLISH PROFICIENCY, LENGTH OF U.S. RESIDENCY, AND SOCIAL CLASS

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The major purpose of the present study was to examine how the parent social and cultural contexts are related to Asian American immigrant mothers' educational involvement. This study investigated four parents' socio-cultural background variables: a) parent's social capital, b) parent's self-perceived English proficiency, c) parent's length of residence in the United States, and d) parent's social class status. In addition, the current study sought to determine the underlying dimensions of Asian American immigrant mothers' parental involvement in order to examine how parent social and cultural background factors influence each of the dimensions differently. The subjects for the current study were 597 nationally representative Asian American immigrant mothers who completed the parent questionnaire of the base-year Educational Longitudinal Study of 2002 (ELS: 2002). Five dimensions of parental

involvement were identified in the current study sample of Asian American immigrant mothers. These include parent's engagement in social activities with her child, parent's positive school contact, parent's monitoring, parent's school contact for problems, and parent's participation at school functions. A series of multiple regression and logistic regression analyses were conducted to assess the relationships between parent's social and cultural backgrounds and each of five dimensions of the Asian American parental involvement. The results showed that Asian American immigrant mothers' social capital, English proficiency, and social class were significantly related to parent's engagement in social activities with her child. Further, mother's social capital, English proficiency, and social class status were significantly positively related to parent's monitoring. Of the various parent's social and cultural background variables, only parent's social capital significantly predicted Asian American immigrant mothers' positive school contact and participation at school functions. No relationship was found between parent social and cultural background variables and Asian American immigrant mothers' school contact for problems.

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Dedication

In memory of my beloved father, Dongshik Shin,
my true inspiration for this whole journey.

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Table of Contents

Dedication	ii
Acknowledgement	iii
Table of Contents	v
List of Tables	vii
List of Figures	viii
Chapter I: Introduction.....	1
Significance of Parental Involvement.....	2
Socio-cultural Contexts and Parental Involvement.....	4
Social Capital Theory and Parental Involvement	6
Parent Involvement in Asian American Families	8
Socio-cultural Contexts and Asian American Parent Involvement	13
Purpose and Design of the Study	16
Definition of Operational Terms	18
Summary	19
Chapter II: Literature Review	20
Parental Involvement	20
Defining Parental Involvement	20
Significance of Parental Involvement	25
Parental Involvement in Non-dominant Socio-cultural Groups.....	27
Asian American Families and Education.....	29
Asian American Parental Involvement	33
Factors Affecting Asian American Parent Involvement	38
Asian Cultural Beliefs	38
Immigration	40
Family Socioeconomic Status	41
Social Capital Theory and Parental Involvement	42
Parents' Migration Status and Social Capital.....	44
Family Socioeconomic Status and Social Capital	44
Social Capital and Asian American Parental Involvement	45
Social Capital Theory Applied to the Current Study	47
Summary	48
Chapter III: Methodology	49
Data and Sample	49
Data	49
Analytical Sample.....	51
Weights and Design Effect	53
Weights	53
Design Effect	54
Missing Value	54
Missing Data Analysis	54
Variables	59
Independent Variables	59
Dependent Variable	63

Control Variables	68
Data Analysis	70
Descriptive Analysis	70
Factor Analysis	71
Multiple Regression Analysis	72
Logistic Regression Analysis	73
Summary	74
Chapter IV: Results	76
Demographic Characteristics of the Sample	76
Dimensions of Asian American Parental Involvement	79
Principal-Components Analysis	79
Reliability Analysis	84
Descriptive Statistics	86
Descriptive Information of Study Measures	86
Descriptive Data on Study Measures across Ethnic/cultural Subgroups ..	88
Relationships between parents' socio-cultural backgrounds and Asian American Parental Involvement	90
Bivariate Analysis	90
Multiple Regression Analyses	92
Multiple Regression Analysis 1	93
Multiple Regression Analysis 2	96
Logistic Regression Analyses	100
Logistic Regression Analysis 1	102
Logistic Regression Analysis 2	104
Logistic Regression Analysis 3	106
Chapter V: Discussion	108
Dimensions of Asian American Immigrant Parental Involvement	108
Relationships between Parents' Socio-cultural Backgrounds and Parental Involvement in Asian American Immigrant Mothers	111
Parent's Social Capital	112
Parent's English Proficiency	113
Parent's Length of Residence in the United States	114
Parent's Social Class	115
Descriptive Data across Ethnic/cultural Subgroups	117
Limitations	117
Implications	119
Implications for Practice and Policy	119
Implications for Future Research	124
Conclusion	126
Appendix A: Proportion of Missing Data	128
References	132

List of Tables

Table 1	Descriptions of Independent Variables.....	61
Table 2	Descriptions of Dependent Variable.....	65
Table 3	Descriptions of Control Variables	70
Table 4	Demographic Characteristics of Asian American Immigrant Mothers	77
Table 5	Summary of Principal-Components Analysis for Asian American Parental Involvement	81
Table 6	List of Dimensions of Asian American Parental Involvement with Subscale Items	83
Table 7	Correlations among Subscales.....	85
Table 8	Descriptive Information of Study Measures	87
Table 9	Means and Standard Deviations of Study Measures for Ethnic/cultural Subgroups	89
Table 10	Bivariate Relationships between Variables	91
Table 11	Multiple Regression Analysis Results for Predicting Parent's Engagement in Social Activities with Her Child.....	94
Table 12	Multiple Regression Analysis Results for Predicting Parent's Monitoring.....	97
Table 13	Logistic Regression Analysis Results for Predicting Parent's Positive School Contact	103
Table 14	Logistic Regression Analysis Results for Predicting Parent's School Contact for Problems.....	105
Table 15	Logistic Regression Analysis Results for Predicting Parent's Participation at School Functions.....	107

List of Figures

Figure 1 Scree Plot for the Principal Components Analysis of Asian American Parental Involvement 82

CHAPTER 1

INTRODUCTION

Home and school represent two of the most important contexts that influence a child's development (Bronfenbrenner, 1986). One primary vehicle for the child's optimal development is parental involvement, which can foster "connections" and "congruence" across home and school (Chavkin, 1993; Lee & Bowen, 2006). Parental involvement generally refers to parents' participation in their children's school education by communicating with school personnel, attending school activities, and cultivating child behaviors that promote educational success (Jenkins, 1997; Epstein, 1986).

Although conceptualized in various ways across the literature, the dimensions of parental involvement have been broadly classified into home-based and school-based activities (Hoover-Dempsey & Sandler, 1997; Hill & Tyson, 2009). More specifically, the former includes such activities as monitoring a child's progress, helping with homework, and discussing schooling and the latter involves parental volunteering, participating in parent-teacher conferences, and serving on parent advisory councils. While school-based parental involvement promotes direct communication and partnership between home and school, home-based parental involvement may indirectly support a child's school success by forming home learning environments congruent with schools' educational missions (Lee & Bowen, 2006).

Earlier studies on parental involvement have mainly focused on school-based involvement, viewing parents as mere supporters for school-set activities, such as

attending parent-teacher conferences. However, more recent studies have extended its focus to outside of school, examining various forms of parental involvement practices across multiple contexts, including home and community. These studies redefine parents as active agents who possess resources and develop strategies for the benefit of both their children and the school community (Greenwood & Hickman, 1991; Li, 2006). For instance, researchers point out that parents adjust their involvement practices according to their children's educational needs, such as academic achievement (Muller, 1998). Parents of academically struggling students may be more likely to be engaged in parental involvement because parents perceive more need to monitor their children's academic progress and to contact schools, compared to those of high achieving students (Crosnoe, 2001; McNeal, 1999).

Significance of Parental Involvement

Research has consistently suggested a positive association between parental involvement and students' academic achievement, as well as social and emotional development (Fan & Chen, 2001; Jeynes, 2003). Empirical evidence shows that greater parental involvement contributes to students' obtaining higher test scores and grades, increased self-esteem, and lower drop-out rates (Aronson, 1996; Barton & Coley, 2007; Berger, 1995; Bernard, 2004; Cai, Moyer, & Wang, 1997; Downey, 2002; Fan & Chen, 2001; Greenwood & Hickman, 1991; Henderson & Mapp, 2002; Hoover-Dempsey & Sandler, 1995; Jeynes, 2003). Furthermore, the effects of parental involvement in their children's school education are overall significant across all ethnic groups (Jeynes, 2003) and at all grade levels (Fan & Chen, 2001; Hill et al., 2004).

It is known that successful parental involvement benefits not only students, but also parents and teachers (Pena, 2000; Swap, 1993). Increased parental involvement enables parents to develop a better understanding of their children's school education, including curriculum, programs, and activities. Accordingly, parents are more likely to have extended opportunities to work jointly with schools (Swap, 1993). Schools gain advantages in that parents bring valuable human and cultural resources to schools by providing information about their children and volunteering efforts. In addition, parental involvement facilitates school personnel's understandings of parents' viewpoints, and thus, increases their awareness of potential stereotypic assumptions about students and their families (Beger, 1995; Dwyer & Hecht, 1992; Pena, 2000; Sohn, 2007; Swap, 1993).

Recognizing parents as full educational partners, the recent No Child Left Behind Act (2002) emphasized a shared responsibility between schools and families in their children's educational success. In particular, the Title 1 policy of the No Child Left Behind Act (2002) presents specific guidelines regarding how schools can maximize active parental participation in their children's school education. For instance, schools funded by Title 1 programs must help parents act as informed advocates for their child's school success. Parents are encouraged to participate in every aspect of their child's school education, which ranges from parents gaining information about their children's school performance, to developing and implementing activities and policies related to parental involvement in collaboration with school personnel (Title 1, No Child Left Behind Act, 2002). To ensure that every student benefits from parental involvement, schools are also required

to incorporate “voices of all parents” in the decision-making process. To be specific, schools in Title 1 programs must conduct ongoing evaluation and identify barriers encountered by non-dominant groups of parents, especially ethnic minorities, immigrants, people with disabilities, and/or those who have limited English proficiency (Title 1, No Child Left Behind Act, 2002). These initiatives manifest the urgent need for school personnel including school counselors to develop knowledge and practice to improve involvement of families from diverse backgrounds (Hidalgo, Epstein, & Siu, 2005).

While the significance of parental involvement has been increasingly emphasized, low-income, ethnic minority and immigrant parents seem constantly disadvantaged when engaging in their children’s educational experiences (Chavkin, 1993; Moles, 1993; Vazquez-Nuttall, Li, & Kaplan, 2006). Traditional family involvement practices are mostly based on “upper-middle class, suburban community schooling with a family structure comprised of a two-parent, economically self-sufficient nuclear family with a working father and a homemaker mother” (Vazquez-Nuttall, Li, & Kaplan, 2006, pp 86). This model does not necessarily fit many low-income ethnic minority parents, especially immigrants, who may lack the resources and have culturally different ideas about the appropriate role of parents in their children’s education (Garcia-Coll & Patcher, 2002; Valdes, 1996; Vazquez-Nuttall et al., 2005).

Socio-cultural Contexts and Parental Involvement

A substantial body of literature has examined the mismatches between low-income, ethnic minority and immigrant parents’ social and cultural dispositions with

those promoted in the mainstream school culture (García Coll & Patcher, 2002). For example, it has been generally assumed that most American schools are more likely to be accessible to middle-class European American parents whose parenting skills, language, lifestyles, and social networks are congruent with those promoted in the mainstream American culture (Lee & Bowen, 2006; Lreau, 2003). Research findings provide some support for this phenomenon by showing that White middle-class parents tend to have larger social networks, as well as more positive experiences with their children's schools than their low income, ethnic minority counterparts. In addition, the relationship between parental involvement and students' academic achievement was stronger in White middle-class parents, as compared to parents from low-income ethnic minority backgrounds (Desimone, 1999; McNeal, 1999; Lee & Bowen, 2006).

However, research evidence also indicates that despite multiple constraints, disadvantaged ethnic minority immigrant parents still get involved in their children's education, by generating strategies that they find comfortable and competent (Hidalgo, Epstein, & Siu, 2005; Ho Sui-Chu, 1995). Many researchers caution the notion that attributes the lack of or distinctive educational involvement practices among parents from non-dominant groups to their social and cultural differences (Delgado-Gaitan, 1991; García Coll & Patcher, 2002; López et al., 2001). Such a *deficit perspective* presumes parents from non-dominant groups are powerless and incapable of helping their children. Furthermore, it fails to illuminate resources that parents from non-dominant groups may use when they navigate and negotiate with

the dominant educational institutions (e.g., school) (Delgado-Gaitan, 1991; García Coll & Patcher, 2002; Lee & Bowen, 2006; Valencia, 1997).

Shifting from the deficit perspective, researchers increasingly emphasize the balanced approach, where both parents' social and cultural strengths, as well as structural barriers are considered, in understanding involvement practices among parents from non-dominant groups (López et al., 2001; Valdes, 1996). For example, López, Scribner, and Mahitivanichcha (2001), in their qualitative study on schools with immigrant families, found that in order to effectively involve immigrant parents, their social, cultural, and financial needs had to be recognized and met first (López et al., 2001). In this view, social and cultural backgrounds that non-dominant groups of parents possess are not seen as deficit dispositions but as a reflection of larger socio-cultural contexts wherein parents construct their involvement strategies (García Coll & Patcher, 2002; Sy, 2006).

Social Capital Theory and Parental Involvement

Social Capital theory (Coleman, 1988, 1990) has been extensively adopted as a useful conceptual framework to examine parent educational involvement (Hwang, 2002; Kao & Turney, 2009; Kao & Rutherford, 2007; Lew, 2006; 2007; Lee & Bowen, 2006; Li et al., 2008). *Social capital* is defined as actual and potential information, resources, and power to which one can access through his or her social networks (Bourdieu, 1986; Coleman, 1988; Lareau, 2001). In linking social capital theory to parental involvement, educational researchers focus on how parents generate resources through their social networks in order to promote their children's educational success (Coleman, 1988; Li et al., 2008; Wang, 2008).

Under the framework of Social Capital theory (Coleman, 1988, 1990), parental involvement can be broadly conceptualized across three domains of social relations: parent-child, parent-school, and parent-community and/or other parents (Kao & Rutherford, 2007; Sun, 1998; McNeal, 1999; Wang, 2008). For example, parent-child interaction through discussion about schoolwork belongs to home-based involvement, whereas parent participation at school functions is a form of school-based involvement. In addition, parents can enhance their children's educational success through social networking with other parents and community members, through which parents not only share information and support, but also enhance values conducive to educational success (Kao & Rutherford, 2007).

Social Capital theory also provides valuable insights into understanding social networking and educational involvement in non-dominant groups of parents. According to Social Capital theory, a parent's "non-mainstream" social and cultural background may become a source of unequal access to social relations and resources, and thus, affect his or her participation in dominant social institutions such as school (Bourdieu, 1986; Lee & Bowen, 2006; Wang, 2008). In particular, Bourdieu (1986) presents the terms *habitus* and *field* to explain the fit between an individual's socio-cultural dispositions and those of a larger society or institution. While *habitus* indicates "a system of dispositions" cultivated from one's prior education and experiences (Brubaker, 2004; Lareau, 2001), *field* is a "structured system of social relations" (Grenfell & James, 1998; Lareau & Horvat, 1999). The educational system can be regarded as a field with its own regulations. An individual parent participates in the field of their children's education, using strategies based on his or her habitus

(Grenfell & James, 1998). When a parent's habitus is inconsistent with the field of education, he or she is more likely to confront barriers to becoming a competent player in that field (Lee & Bowen, 2006; Wang, 2008). For instance, immigrant parents are more likely to have difficulties communicating with schools or assisting with their children's schoolwork due to their habitus such as limited English proficiency, which is divergent from mainstream school culture (Wang, 2008).

However, individuals are not merely constrained by rules in the field (Grenfell & James, 1998). Rather, participants constantly appraise their own habitus and develop strategies to advance their positions in the field. Parents shape their relations with their children, schools, and other parents, depending on their evaluation of educational system and available resources (Wang, 2008). Such a perspective suggests that parents' social and cultural backgrounds need to be understood as important contextual influences underpinning involvement process in non-dominant groups of parents (Grenfell & James, 1998; Wang, 2008). In sum, it is the dynamic interactions of the educational field and parents' habitus that characterize their involvement practices (Grenfell & James, 1998).

Parent Involvement in Asian American Families

Involvement of Asian American parents has been a particular challenge for educators and researchers (Sy, 2007). Unlike parents from other ethnic and cultural groups, Asian American parents have been found to be inactive especially in their participation at their children's school. Yet, Asian American students generally show higher academic achievement than their counterparts from other ethnic groups. Furthermore, studies examining the effects of Asian American parental involvement

on school performance report inconsistent results, depending on the types of parental involvement measured (Chao & Tseng, 2002). For example, several studies using the National Educational Longitudinal Study from 1988 (NELS: 88) indicate that certain types of parental involvement such as discussions about school, helping with homework, and school participation were unrelated or negatively related with an Asian American student's academic achievement, contrary to their European American counterparts (Chao & Tseng, 2002; Kao, 1995).

Asian Americans are one of the fastest growing cultural groups in U.S. schools (Lew, 2006). In 2005, the number of Asian American students enrolled in K-12 schools reached approximately 2.4 million, comprising 4% of the total U.S. public school enrollment (U.S. Bureau of the Census, 2005). This is a noticeable increase compared to the 1970s, when Asian American children comprised only 1% of the total U.S. student population (Lew). The majority of Asian American students are from first- and second-generation immigrant families, and they are influenced greatly by the ethnic culture of origin of their communities and parents (Lee & Zhou, 2004). In fact, 88% of all Asian American school-age children have a foreign-born parent. Additionally, almost 70% of Asian Americans live in households, where family members speak a language other than English (U.S. Bureau of the Census, 2003).

Asian American students have drawn much attention because of their academic success, giving them the reputations of "model minority students" (Lew, 2006; Tseng, Chao, & Padmawidjaja, 2007; Yeh, 2002; Yee et al., 2007). Asian American children, as a whole, are gaining higher scores on various standardized tests, such as the SAT, and report higher GPAs than their counterparts from other

ethnic groups (Lew, 2006). Several studies based on the National Education Longitudinal Study data indicate that Asian American students have lower drop-out rates and are more likely to graduate from college, when compared to their White, Black, and Latino counterparts (Kao & Thomson, 2003).

However, such aggregate data masks a great disparity in educational outcome and socioeconomic status among Asian American student subgroups. For example, although a larger percentage (51%) of Asian American high school students were placed in college preparatory track than other racial counterparts (Kao & Thomson, 2003), almost 60% of Hmong and half of Cambodian and Laotian populations over 25 years of age, completed their education at lower than high school level (Reeves & Bennett, 2004). Similarly, while the median income of Asian American families is higher (\$59,324) than the overall population, those of Hmong and Cambodian families are much lower than average (\$32,400 and \$35,600).

Furthermore, research findings consistently report that many Asian American children struggle with psychosocial stresses and developmental concerns (Farver et al., 2002; Yeh, 2002). Some of the common difficulties include pressure from unrealistic parental expectations as to academic and career achievements, possible cultural conflicts between their Asian norms and the American mainstream values, and identity development in the milieu of multiple cultural and social contexts (Chae, 2001; Lew, 2006; Rhee, Chang, & Rhee, 2003; Uba, 1994; Yeh, 2002). Yet, the popular model minority stereotype, which portrays Asian American students as academically successful and financially well-supported, often misleads school

personnel and other helping professionals to overlook Asian American students who need support (Yeh, 2002).

In addition to the problem of overusing the “model minority” stereotype, many Asian American parents, especially those from recent immigrant families, have difficulty collaborating with or working with schools and school personnel (Shin, 2004; Siu et al., 2005). The migration status of Asian American parents leads them to experience greater cultural and linguistic barriers with school personnel and schools, in general (Lew, 2006). Becoming involved in their children’s education is often very different for Asian American parents (Li, 2006; Nguyen, You, & Ho, 2009). Literature suggests that many Asian American parents tend to be more active in providing a nurturing home environment rather than frequently participating in school activities (Siu, 1996). These patterns, however, may not be beneficial for Asian American students because parents are more likely to be misinterpreted as “uncaring” by school personnel, as well as miss important information and opportunities to advocate for their children’s educational needs (Siu, 1996). While mutually disconnected school and parents impose culturally different expectations for learning and appropriate behaviors, Asian American children are often expected to resolve developmental tasks, to establish identity, and to serve as cultural brokers by bridging the gap between home and school (Kim, Gonzales, Strah, & Wong, 2006).

One of the most widely accepted explanations for the distinctive patterns of involvement in Asian American parents is the Asian cultural belief about home-school relation and education (Coll et al., 2002; Hwa-Froelick & Westby, 2003; Julian, McKenry, & McKelvey, 1994). The literature suggests that Asian American

parents tend to consider home and school as separate educational sectors and view school personnel as authority figures, whose instructional and educational decisions may not be challenged. In addition, Confucian-oriented Asian traditional values, such as emphasis on cognitive attainment and hard work, may lead Asian American parents to focus on socializing children for academic achievement, and thus, to become more involved in teaching and monitoring children at home rather than directly interacting with schools (Asakawa & Csikszentmihalyi, 1998; Chao, 1996; Goyette & Xie, 1999; Ho, Peng, & Lai, 2001; Okagaki & Frensch, 1998; Sy, 2006).

However, these conceptualizations are mostly based on information from anecdotal ethnographic studies using small sample sizes of interviews and observations (Hidalgo, Epstein & Siu, 2005). There is also increasing criticism that existing research defines parental involvement too narrowly (Sui-Chu & Wills, 1996) and may not capture diverse ways in which Asian American parents facilitate their child's educational success (Epstein & Dauber, 1991; McKay & Stone, 2000; Hidalgo, Epstein & Siu, 2005; Sy, 2007).

Recently, several researchers made efforts to examine the educational involvement of Asian American parents by constructing a comprehensive classification (Chao, 2000; Huntsinger et al., 2000; Nguyen, You, & Ho, 2009; Sohn, 2007; Sy, 2007). For example, Chao (2000) categorized parental involvement as *managerial* and *structural*, according to the directness of parenting behaviors. Managerial involvement includes direct practices such as parents attending school functions, while structural involvement indicates forming home environments, such as setting up the rules for a child's after-school time (Chao). Nguyen and her

colleagues (2009) exclusively focused on the home-based involvement of Asian American parents, yet built a relatively comprehensive model, using a nationally representative sample of Asian American parents. The authors conducted a confirmatory factor analysis and validated their hypothesized substructure of Asian American home-based involvement: *monitoring, communications, expectations, and parent-child participation* (Nguyen et al.).

Other researchers (Sohn, 2007; Sun, 1998; Sy, 2007) also used data from a nationally representative sample and explored Asian American parental involvement in the broader contexts across home and school. In addition to traditional types of involvement, such as parent-school contact and home-based monitoring, these studies (Sohn, 2007; Sun, 1998; Sy, 2007) examined how Asian American parents promote their children's education, by utilizing community resources. Findings from these studies indicate Asian American parents, in general, strongly focus on academic socialization and facilitate cognitive learning by exposing their children to extracurricular learning activities in community (Sohn; Sun; Sy). These studies suggest that Asian American parental involvement needs to be understood within an inclusive model, which overarches parental involvement practices across contexts and forms of activities simultaneously (McNeal, 1999; Sy, 2007).

Socio-cultural Contexts and Asian American Parent Involvement

Much less is known about subgroup differences in Asian American parental involvement. Literature suggests that several factors may affect variations in Asian American parental involvement practices, including levels of acculturation, language proficiency, and socioeconomic status (Chao & Tseng, 2002; Lew, 2006; Sy, 2006).

Immigration typically involves learning new cultural codes and establishing new social networks. In studies that examined the experiences of Asian immigrant parents, the participants perceived that their lack of English proficiency and unfamiliarity with American educational systems frequently limited their opportunities for collaboration with their children's schools (Lew, 2006; McCaleb, 1997; Trumbull, Rothstein-Fisch, & Greenfield, 2000). For example, Turney and Kao (2009), in their recent study, found that Asian foreign-born parents reported more barriers to their participation at their children's school than parents from other ethnic and cultural groups. Further, Asian foreign-born parents were almost ten times more likely to report their English proficiency as a barrier to their involvement than native White parents (Turney & Kao).

Researchers also point to family income, parents' educational attainment, and occupations, as important factors influencing variability in Asian American parental involvement (Lew, 2006; Louie, 2001; Shin, 2004; Sohn, 2007; Sy, 2006). With limited financial resources, parents from lower socioeconomic status are less able to be actively involved in their children's education at home and in school in spite of their educational aspiration for their children. For example, Louie (2001) found that working-class first generation immigrant Chinese parents were less likely to provide educational guidance and support than their middle-class counterparts. Additionally, parents with lower levels of education are less able to assist their children with schooling (Sy, 2006). For instance, research found that many refugee parents from Southeast Asian countries lack formal educational experiences and English proficiency to participate in the school or to help their children with homework (Hwa-

Froelich & Westby, 2003; Rumbaut, 1990; Sim, 1992; Siu, 1996). However, little attention has been paid to the factors contributing to within-group differences in Asian American parental involvement practices.

To develop a more comprehensive understanding of Asian American parental involvement, it is important to understand the effects of parents' social and cultural contexts, including migration status, English proficiency, familiarity with the American educational system, socioeconomic backgrounds, and social networks on Asian American parental involvement practices (Turney & Kao, 2009; Sy, 2006). Nevertheless, few studies systemically investigate the relationship between parents' backgrounds and their educational involvement practices (Siu, 1996; Sy). It should be also noted that while various socio-cultural factors collectively affect parental involvement with children's education, most studies on Asian American parental involvement did not consider these variables simultaneously, failing to examine within-group differences.

Social capital theory is particularly relevant as a conceptual framework to examine Asian American parental involvement in that it focuses on parenting resources transmitted through social relations (Sun, 1998; Hwang, 2002). Studies suggest Asian American parents, in general, hold high academic expectations for their children and emphasize the importance of education through family socialization process, which, in turn, shapes their educational involvement with their children (Chen & Stevenson, 1995; Steinberg, Dornbusch, & Brwon, 1992). Research also shows that Asian American parents' co-ethnic social networks play a key role in their educational involvement. For example, Asian American immigrant parents tend to

rely on members in their ethnic community for important educational information and opportunities rather than to directly collaborate with schools (Diamond, Wang, & Gomez, 2006; Lew, 2007). In addition, the notion of *habitus* and *field* provides conceptual lens to explore Asian American parents' involvement practices in the interactions between their social and cultural backgrounds and U.S. schools.

Purpose and Design of the Study

Given the proceeding discussions and lack of empirical and nationally representative research on educational involvement of Asian American parents, the purpose of the current study is to examine the relationships between parents' social and cultural backgrounds and Asian American parental involvement. More specifically, the study will investigate the role of parents' length of residence in U.S., English proficiency, social class, and social capital, as measured by the characteristics of parents' social networks with other parents of the child's friends, in predicting the specific dimensions that capture the ways in which Asian American immigrant mothers are involved in their children's education.

This study particularly focused on Asian American immigrant mothers' educational involvement. Despite the majority of Asian American parents are foreign-born immigrants; there is little research on educational involvement of Asian American immigrant parents. Mothers, instead of fathers were selected as subjects for the current study. Research on parental involvement indicates that mothers, in general, are more involved in all the aspects of their children's education than fathers by providing care for their child's physical and emotional needs, monitoring their child's behaviors, helping with schoolwork, and volunteering (Gronlinck & Slowiaczek,

1994; Hoover-Dempsey & Sandler, 1997; Sheldon, 2002). In particular, mothers usually are responsible for their children's care and education, while fathers are breadwinners in traditional Confucian-based Asian cultures (Uba, 1994). Studies on Asian American parenting identify mothers rather than fathers, as primary caretakers who have more influence on their behaviors and daily activities (Kim & Wong, 2002).

The current study used the parent data from the base-year, restricted version of the Educational Longitudinal Study of 2002 (ELS: 2002). The ELS: 2002 dataset is composed of a nationally representative sample of 15,326 tenth grade students in 752 public and private schools. The data set also includes information from students' parents, teachers, and school administrators. All of the data regarding parents in this study were collected in the year of 2002 when their children were tenth graders. Multiple regression and Logistic regression analyses were performed to examine the effects of designated parents' social and cultural backgrounds and the dimensions of Asian American parental involvement of adolescents.

The overarching research question for this study is as follows:

To what extent do Asian American immigrant mothers' social capital, length of residence in the United States, degree of English proficiency, and social class, relate to each of the dimensions of Asian American parental involvement?

(In this study, five dimensions of Asian American parental involvement were identified. The five dimensions include parent engagement in social activities with her child, parent positive school contact, parent monitoring, parent school contact for problems, and parent participation at school functions.)

Definition of Operational Terms

Asian Americans: refers to people who originated from a variety of countries in Asia, regardless of their immigration or citizenship status (Revees & Bennett, 2004). Asia encompasses regions of East Asia (China, Japan, and Korea), South Asia (India, Pakistan, Nepal, Bangladesh, and Sri Lanka), and Southeast Asia (Vietnam, Laos, and Cambodia) (Chao & Tseng, 2002).

Parental Involvement: refers to parents' participation in their children's school education by communicating with school personnel, attending school activities, and cultivating behaviors that are promoting educational success (Jenkins, 1997; Epstein, 1986).

Social Capital: refers to actual and potential information, resources, and power to which one can access through his or her social networks (Bourdieu, 1987; Lareau, 2001). In this study, the status of parents' social capital is framed as the characteristics of parents' social interactions and locations in their child's school and larger community. To be specific, parents' social capital was measured by whether parents know about their children's close friends and their parents, how frequently parents exchange information and supports with other parents of their children's friends, and whether parents belong to any neighborhood or religious organizations with parents from their children's schools.

Social Class: refers to "a large category of people within a system of social stratification who have a similar socioeconomic status (SES) in relation to other segments of their community or society" (Theodorson & Theodorson, 1972, p. 384).

In this study, parents' social class was measured by a composite variable of family income, parents' levels of education, and parents' occupational statuses.

Summary

This chapter included an introduction to this study that will examine the roles of parents' social and cultural contexts in the specific dimensions of Asian American parental involvement of adolescents. The rationale and purpose were delineated and the research questions were posed.

CHAPTER 2: LITERATURE REVIEW

This chapter will review the literature pertaining to parental involvement in general and, more specifically, Asian American parental involvement, along with social capital theory. First, parental involvement will be defined based on the review of previous research. In addition, research findings on dimensions of parental involvement, as well as relationships between parental involvement and students' educational outcomes will be introduced. Second, the experiences of Asian American families in U.S. education will be discussed, along with research findings pertaining to Asian American parental involvement. Factors contributing to Asian American parental involvement will be also examined. Lastly, social capital theory will be introduced as a guiding conceptual framework for the current research. Key topics and research will be described and critically analyzed.

Parental Involvement

Defining Parental Involvement

The term parental involvement has been defined in various ways. Most definitions include a wide range of activities that describe parents' investment of resources to facilitate their child's positive development (Fan & Chen, 2001; Jeynes, 2003; Kohl et al., 2000; Lee & Bowen, 2006). In general, parental involvement refers to parents' participation in their children's school education by communicating with school personnel, attending school activities, and cultivating behaviors that promote educational success (Jenkins, 1997; Hill & Tyson, 2009).

While earlier research has primarily defined parental involvement as parents' participation in school-based activities (Morrow, 1989), more recent studies (Reynolds, 1992; Epstein, 2002; Sohn, 2007; Sy, 2007) have extended its focus to outside of school, embracing a variety of parental involvement practices not only in schools but also in the home and the community. For example, Epstein (2002) defines parental involvement, as a variety of ways through which parents can support their children's educational success in collaboration with school and community. In particular, Davis (1993) underscores that the definition of parental involvement should go beyond the "agenda of schools" and include diverse activities constructed based on the "needs and priorities of families." With broader conceptualization, studies redefine parents as active agents who possess resources and develop strategies for the benefits of both their children and school community (Greenwood & Hickman, 1991; Li, 2006).

Parental involvement is a multidimensional concept (Epstein & Sanders, 2002; Jaynes, 2007; Kohl et al., 2000). The literature review suggests that there are three major approaches to conceptualize different aspects of parental involvement. Grolnick and Slowiaczek (1994) grouped parental involvement into three categories according to how parents activate their resources to promote children's schooling and motivation. *Behavioral involvement* indicates parents' actions such as volunteering and attending an open house. *Cognitive/intellectual involvement* refers to exposing children to development of cognitive skills and knowledge, including reading books and going to the library. *Personal involvement* designates conveying positive attitudes and values about education and learning to the child (Grolnick & Slowiaczek, 1994).

Epstein (1995, 1997, and 2002) developed six types of involvement across schools, home, and community. The typology includes parenting, communication, volunteering, learning at home, collaboration with the community, and decision-making. Epstein's taxonomy is unique in that it emphasizes the overlapping scopes of school, home, and community (Cristenson & Sheridan, 2001). The first type, *parenting*, indicates providing children a positive home environment particularly by ensuring basic levels of support such as health, nutrition, and discipline. Parents are also expected to instill the importance of learning and education. The second type, *home-school communication*, takes place in various forms, including parent-teacher conferences, school newsletters, report cards, and phone contact. For example, parent-teacher conferences allow parents and teachers to discuss student's progress and problems. Parents may also gain information about school programs through school newsletters. The third type, *volunteering*, indicates parents' support and assistance of school programs through volunteering in classrooms and attending school events. Parents' participation in school activities not only enhances school programs, but also promotes communications between parents and school personnel, as to students' progress and schooling information (Epstein, 1995, 1997, 2002). The fourth type, *learning at home*, involves parents' providing supervision and helping with their child's schoolwork in the home environment. For instance, parents stimulate children's academic achievement at home by assisting with their homework, having conversations about their school learning, and giving reinforcement on their school performance. The fifth type, *decision-making*, refers to a collaborative process where parents share their views and ideas about school programs with school

personnel by joining various school governing organizations, such as parent advisory councils and the Parent Teacher Association (PTA). Parents' involvement in these organizations encourages parents to learn about school policies and programs. Further, parents can develop their skills as advocates and leaders by sharing their opinions and making joint decisions with school personnel. The sixth type, *collaboration with the community*, highlights that schools and parents work together with community organizations in order to identify and allocate resources necessary to facilitate students' educational success. For instance, parents benefit from services such as after-school programs, childcare, and summer tutoring programs to support their child's learning (Epstein, 1995, 1997, 2002).

Lastly, Hoover-Dempsey and Sandler (1995, 1997) argue that involvement practices are shaped by parental beliefs about parenting roles in a child's school education, as well as opportunities for involvement provided by schools. According to Hoover-Dempsey and Sandler (1995, 1997), the forms of parental involvement are greatly influenced by a) parents' construction of parenting roles in their child's life, b) parents' sense of efficacy to facilitate child's educational success, and c) general expectations and occasions for parental involvement that are ensured by the child and the child's school (Hoover-Dempsey & Sandler, 1995, 1997). Similarly, Kohl and her colleagues (2001) suggested six dimensions of parental involvement by considering factors such as parents' perceptions toward school and teachers' attitudes toward parents. Factors were drawn from questionnaires completed by parents and teachers of 387 children in low- to middle-income neighborhoods. Six "conceptually distinct factors" (p. 518) include Parent-Teacher Contact, Parent Involvement at

School, Quality of Parent-Teacher Relationship, Teacher's Perception of the Parent, Parent Involvement at Home, and Parent Endorsement of School (Kohl et al., 2001).

Examining these three approaches indicates that dimensions of parental involvement encompass school-initiated, parent-initiated, and parent-school relation components. Further, Seginer (2006), Hill and Tyson (2009) and Vazquez-Nuttall and his colleagues (2005), after extensive review in the field of parental involvement research, suggested that the home-based and school-based scheme is a widely-accepted and useful framework for conceptualizing the aspects of parental involvement (Hill & Tyson; Kohl et al., 2001; Seginer; Vazquez-Nuttall, Li, & Kaplan, 2005). Consistent with the extant approaches, the current study adopts a broad conceptualization of the dimensions of parental involvement: home-based and school-based parenting behaviors with the intention to promote their children's educational success.

To be specific, the home-based involvement includes such activities as providing behavioral supervision, communicating educational expectations, monitoring a child's progress, helping with homework, and discussing schooling. The school-based dimension involves parent-school contacts, parental volunteering, participating in parent-teacher conferences, and serving on parent advisory councils. While school-based parental involvement promotes direct communication and partnership between home and school, home-based parental involvement may indirectly support a child's school success by forming home learning environments congruent with schools' educational missions (Hoover-Dempsey & Sandler 1997; Lee & Bowen, 2006).

Significance of Parental Involvement

For the last two decades, research evidence has consistently suggested that parents' involvement in education makes important contributions to a child's academic achievement, as well as social and emotional development (Fan & Chen, 2001; Jeynes, 2003). Greater parental involvement is associated with students' improved academic achievement, higher self-esteem, positive attitudes toward learning, better peer relations, and lower drop-out rates (Aronson, 1996; Barton & Coley, 2007; Berger, 1995; Bernard, 2004; Cai, Moyer, & Wang, 1997; Downey, 2002; Fan & Chen, 2001; Greenwood & Hickman, 1991; Henderson & Mapp, 2002; Hill et al., 2004; Hoover-Dempsey & Sandler, 1995; Jeynes, 2005).

In particular, several studies using meta-analysis confirmed that parental involvement has overall positive effects on students' academic achievement (Fan & Chen, 2001; Jeynes, 2005, 2007). After examining twenty five studies, Fan and Chen (2001) found the average correlation coefficient of .25 between academic achievement and parental involvement, which was defined as parent-child communication, parental home supervision, educational expectations for children, and school contact and participation. The results indicate a medium-sized effect and positive relations between parental involvement and students' academic achievement. The parents' academic aspirations had the strongest relationship with students' academic achievements ($r = .40$). In addition, students' general grade point average (GPA) was most highly correlated with parental involvement, when compared to other achievement indicators, such as test scores on reading or math.

Jeynes (2005) conducted a meta-analysis, reviewing forty-one qualitative studies on parental involvement in urban elementary school settings. In this study, parental involvement was assessed at both the general and specific levels. Specific dimensions of parental involvement include parental assistance of homework, parental academic expectations, attending school meetings, and supportive parenting styles. The results suggested that, on the whole, parental involvement has positive relationships with urban elementary school students' academic achievement. General parental involvement indicates a medium effect size of .74. Among specific dimensions of parental involvement, parental expectations showed the largest effect size of .58

Conducting another meta-analysis using 52 studies, Jeynes (2007) also demonstrated positive relationships between parental involvement and academic achievement in urban secondary school students. In particular, Jeynes (2007) examined the influence of parental involvement on four different educational outcomes, including a composite measure of overall academic achievement, grades, standardized test scores, and other achievement indicators such as teacher rating scales or attitudes toward learning (Jeynes). The results of the meta-analysis suggest that the effect size for overall parental involvement ranges from .38 to .53 depending on whether the examined study used sophisticated control or not (Jeynes). Positive relations between the two variables were also found among studies on minority secondary school students, showing effect size of .46 to .53 (Jeynes, 2007).

Researchers have also pointed out that parental involvement is beneficial not only for students, but also for parents and teachers (Desimone, Finn-Stevenson, &

Henrich, 2000; Epstein, 1995; Pena, 2000; Swap, 1993). Increased involvement in education provides parents with greater opportunities to develop understandings of their children's schooling as well as how to collaborate with school personnel (Desimone et al., 2000; Mapp, 2003; Swap, 1993). Parental involvement can be an important means for fostering home-school collaboration. When parents become more engaged in their children's education, home and school are more likely to increase mutual communications (Becker & Epstein, 1982; Chavkin, 1989; Pena, 2001). Parents and schools can share goals, resources, and practices so that children's educational success can be consistently fostered across home and school (Epstein, 1986, 1990; Scott-Jones, 1995). Moreover, with increased parental involvement, teachers tend to feel more comfortable asking parents to participate in a variety of school-related programs (Collins et al., 1982; Desimone et al., 2000)

Parental Involvement in Non-dominant Socio-cultural Groups

Despite the increasing emphasis on the importance of parental involvement, low-income, ethnic minority and immigrant parents are disengaged in their children's educational experiences (Chavkin, 1993; Moles, 1993; Vazquez-Nuttal, Li, & Kaplan, 2006). In particular, Moles (1993) pointed out that parents from non-dominant backgrounds, including low-income, less educated, immigrant, limited-English proficient, and ethnic minority parents are more likely to encounter obstacles to their educational involvement due to "the limited skills and knowledge, restricted opportunities for interaction, and psychological and cultural barriers (Moles, pp. 32-33)." For example, immigrant parents' lack of English proficiency and little information about American school culture impedes their effective educational

involvement (Fuligni & Fuligni, 2007; Moles, 1993; Pena, 2000). Similarly, Li (2006), in her qualitative research on the involvement of 26 middle-class Chinese immigrant parents, found that most participating parents reported their desire to learn more about school materials and instructions. Further, Chinese immigrant parents who were unfamiliar with school's reading instructions were less able to implement home-literacy practice consistent with reading education in school (Li).

In addition, time constraints and lack of transportation often make it difficult for low-income immigrant parents to attend school events or to provide their children intensive home-supervision (Moles, 1993; Pena, 2000; Turney & Kao, 2009). Many ethnic minority immigrant parents work long hours at low wage because of their limited English and little formal education in the United States (Moles, 1993).

Differences in cultural beliefs about education and parenting roles lead immigrant parents to hesitate to actively interact with school personnel (Fuligni & Fuligni, 2006; García-Coll & Patcher, 2002; Moles, 1993; Pena, 2000; Sy, 2006). For instance, many Mexican American parents believe that they should not interfere with the school's agenda and instructions (Chavkin & Gonzales, 1995). Asian immigrant parents often readily agree with school personnel out of respect for authority rather than in collaboration as equal partners (Lee & Manning, 2001; Moles, 1993; Sy, 2006). In particular, low-income, ethnic minority immigrant parents often feel unwelcome in the educational settings, re-experiencing isolation and discrimination that they experienced in the larger society (García-Coll & Patcher, 2002; Moles, 1993; Lopez et al., 2001).

Despite the increasing number of culturally and linguistically diverse and economically disadvantaged students in the U.S. schools, there is limited information about the needs and challenges that the parents of these students experience in their educational involvement (Hidalgo et al., 2005; Vazquez-Nuttall et al., 2006). Similarly, Asian American and Asian immigrant students and their parents are one of the fastest growing ethnic minority groups in U.S. schools, yet few studies have examined the types of Asian American parental involvement (Nguyen, You, & Ho, 2009), as well as what socio-cultural factors may affect the development of Asian American parents' strategies to support their children's educational success (Sy, 2006). The following section introduces a literature review on Asian American families in educational settings and Asian American parental involvement.

Asian American Families and Education

Broadly defined, Asian Americans refer to people who originated from a variety of countries in Asia, regardless of their immigration or citizenship status (Revees & Bennett, 2004). In 2000, Asian Americans numbered 11.9 million, comprising 4.2 % of the U.S. population (Revees & Bennett). Compared to other racial groups, Asian Americans have a higher proportion of recent immigrants. Sixty-nine percent of Asians were foreign-born according to the 2000 U.S. Census Bureau. Among these, 43% entered the United States between 1990 and 2000 (Revees & Bennett). The majority of Asian Americans live in urban or metropolitan areas, including California and New York. Five subgroups of Chinese, Filipino, Asian Indian, Vietnamese, and Korean make up 80% of the Asian American population (Revees & Bennett).

Geographically, Asia encompasses regions of East Asia (China, Japan, and Korea), South Asia (India, Pakistan, Nepal, Bangladesh, and Sri Lanka), and Southeast Asia (Vietnam, Laos, and Cambodia) (Chao & Tseng, 2002). Individuals with Asian ancestry often identify themselves with their country of origin or ethnic classifications (e.g., Chinese American) (Ho, Rasheed, & Rasheed, 2004). Consequently, there is vast diversity within this group as to language, ethnicity, religion, history, socioeconomic status, acculturation levels, and educational attainment (Ho, Rasheed, & Rasheed; Lew, 2006). For example, at least 32 different languages are spoken across Asian American groups (Revees & Bennett, 2004). The median income of Asian families are higher (\$59,324) than the overall population, yet those of Hmong and Cambodian families are much lower than average (\$32,400 and \$35,600). Almost 44% of total Asian Americans hold at least a college degree, while 60% of Hmong and half of Cambodians and Laotians have a less than a high school education (Revees & Bennett).

According to the collectivistic Asian familism, children's academic achievement and upward mobility are considered a major family matter, which is often equated to successful parenting (Chou & Leonard, 2006; Nguyen, You, & Ho, 2009). Keenly recognizing their parents' sacrifice, Asian American students experience a great deal of pressure to succeed in school. With little knowledge of English and the American mainstream culture, Asian immigrant parents also tend to adapt to the dominant American culture at a slower rate in comparison to their children (Buki, Ma, & Strom 2003; Farver & Lee-Shin, 2000; Nah, 1993; Yagi & Oh, 1995). It is not unusual for Asian American high school and college students to report

feelings of confusion, alienation, and frustration stemming from relationship difficulties with their more traditional parents (Kao & Thompson, 2003). Ironically, Asian American parents tend to apply dual cultural standards in disciplining their children: be successful in the United States without becoming too Americanized (Uba, 1994). For instance, immigrant Asian parents tend to emphasize obedience with parental expectations, but, at the same time, encourage their children to master English and American ways such as self-assertion that will increase the possibility of success in the host society (Yang & Rettig, 2003).

In school, Asian American students experience a sense of isolation and racial discrimination (Tseng, Chao, & Padmawidjaja, 2007). For example, Kao (1999), in her analyses of National Educational Longitudinal Study (NELS: 88), found that students from Asian immigrant families felt more alienated from their peers in school than their White counterparts. Similarly, Portes and Rumbaut (2001) examined experiences of students from multiple ethnic groups in San Diego schools and found that Laotian and Cambodian refugee students tended to view their schools as less safe, as well as reported more fights around racial issues than their Mexican and Central American peers.

The “model minority” myth has contributed to educators’ perception that Asian-American children, in general, are more academically achieving and emotionally stable (Yeh, 2001). However, researchers (Sodowsky & Lai, 1997; Kim, 2006; Lew, 2006) suggest that such stereotypes mislead school personnel and other helping professionals to overlook Asian American students who need support. Furthermore, it negatively affects overall peer relationships of Asian American

students especially in public schools, where students with diverse racial and or ethnic backgrounds are mixed (Rosenbloom & Way, 2004; Tseng et al., 2007; Yeh, 2001). Teachers' preferences and high academic expectations for Asian American students in the classroom often lead students from other ethnic groups to feel resentment, resulting in bullying and harassment toward Asian American students outside the classroom (Rosenbloom & Way, 2004).

In a recent study examining urban high school climate, Rosenbloom and Way (2004) conducted two-year in-depth interviews with 20 Asian American, 20 Latinos, and 20 African American ninth-graders from mainstream English classes. The school was characterized as one of the least academically achieving, predominantly attended by immigrants, and located in poor, urban neighborhood. The results from interviews suggest that Asian American students reported more discrimination by peers than their African American and Latino/a counterparts whereas, African American and Latino/a students reported more discrimination by adults in schools, including school personnel and police. In particular, Asian American students experienced verbal and physical harassment and typically portrayed themselves as "weaker" and "smaller" than their peers from different ethnic groups (Rosenbloom & Way).

In addition, researchers point out that Asian American students especially from recent immigrant and or refugee families encounter unique challenges in their school adjustment. Many of these students attend large inner city schools that are often characterized as having a great number of ethnic minority students from low-income families, overcrowded classrooms, and unqualified instruction (Tseng et al, 2007; Portes & Rumbaut, 2000). These students are often left to deal with English

acquisition tasks and unfamiliar U.S. school expectations without proper support either from their parents or school personnel. For instance, Lew (2006) found that, in her interview with Korean American high school drop-out students, the participants were marginalized both from their parents and the schools. Further, the interviewees described their relationship with teachers and school counselors with words such as “mistrust” (Lew).

Lack of parental involvement often hinders the positive development of Asian American students (Lew, 2006; Louie, 2004). School-family partnership is a foreign concept for many Asian American parents (Sy, 2006). Researchers have found that traditional Asian American parents tend to view school personnel as authority figures whose instructional and educational decisions should not be challenged. Limited English proficiency and unfamiliarity with American mainstream school culture also have been found as significant barriers to Asian immigrant and refugee parents’ school involvement (Lew, 2006; Ochoa & Rhodes, 2005; Tarver Behring & Gelinas, 1996).

Asian American Parent Involvement

Asian American parents’ involvement practices have been a particular challenge for educators and researchers (Sy, 2007). Despite the high academic achievement of Asian American students overall, Asian American parents are often seen as “inactive” in traditional parental activities. For example, Asian American parents typically show low rates of direct school involvement, such as participating in parent-teacher conferences and volunteering activities (Cho, 2000; Li, 2006; Siu, 1996; Sy, 2007). It has been suggested that the traditional definition of parental

involvement mainly focuses on the parents' participation in school-related events and activities, which may not exactly describe the multiple ways in which Asian American parents become engaged in their child's education (Epstein & Dauber, 1991; Nguyen et al., 2009; McKay & Stone, 2000; Hidalgo, Epstein & Siu, 2005; Sy, 2007).

Research findings report that parents from Asian cultures tend to show higher rates in indirect parent involvement than in direct home-school partnerships (Sy, 2006; Wu, 2006). A recent study on Vietnamese American immigrant parents, for example, indicated that they believe their primary roles in their children's school success are to schedule after-school time and to ensure homework completion. Furthermore, participating parents reported that they are unfamiliar with the concept of the school-family partnership (Hwa-Froelich & Westby, 2003). Similarly, Davis and McDaid (1992), in their survey with more than 300 Vietnamese students, found that while students perceived that their parents hold high academic aspirations, almost 72% of the participating students' parents had never contacted their teachers. Ho and Williams (1996), using data from the National Educational Longitudinal Study (NELS: 88) examined the relationships between academic achievement of multi-ethnic eighth graders and their parental involvement. The authors found that Asian American parents tended to provide more home-based supervision compared to White parents, yet become less engaged in school-based activities such as communicating with school personnel, volunteering, and attending school meetings (Ho & Williams).

However, Asian American parents' lower levels of participation at school activities do not indicate the parents' lack of interest in their child's education. In

effect, numerous studies pointed out that Asian American parents, in general, greatly emphasize the importance of education for their children's future success (Chen & Stevenson, 1995; Steinberg, Dornbusch, & Brown, 1992) and attempt to enhance their child's learning by providing monitoring, reducing household chores, and arranging additional academic opportunities, such as private tutoring (Chao & Tseng, 2002; Schneider & Lee, 1990; Siu, 1996; Sy, 2006).

Chao (2000) confirmed the distinct patterns of Asian American parental involvement through her cross-cultural study. Chao (2000) compared parenting practices between Asian American parents, composed of 123 immigrant Chinese parents and 64 European American parents of the children from first- to third-graders. Participants completed a combined survey on parenting styles, parental socialization goals, and parental involvement in their children's schooling. In particular, Chao (2000) categorized parental involvement practices as *Structural Involvement* and *Managerial Involvement*. *Managerial involvement* includes direct parental practices, such as assisting and discussing a child's schoolwork as well as participating in school events. In contrast, *structural involvement* includes indirect parental practices, where parents promote home-based learning environments by structuring children's after-school activities and assigning additional academic practice opportunities (Chao; Sy, 2006). While Asian American parents were engaged in both types of parental involvement, Asian American parents demonstrated higher rates in structural involvement, whereas European American parents showed higher participation rates in managerial involvement (Chao, 2000). In the case of managerial involvement,

Asian American parents tend to be engaged into instructing academic skills at home for their primary school-age children (Huntsinger et al., 2000; Sy, 2006)

Findings from quantitative research examining the effects of Asian American parental involvement on children's academic achievement are inconsistent, particularly depending on the types of parental involvement measured (Chao & Tseng, 2002). Studies using National Educational Longitudinal Study from 1988 (NELS: 88) have found that the relationship between parental involvement and Asian American children's academic achievement has overall weak or negative effects (Chao & Tseng, 2002; Kao, 1995; Peng & Wright, 1994). For example, Kao (1995) found that specific types of parental involvement such as discussions about school, helping with homework, and enrolling children in outside classes were unrelated or negatively related to Asian American student's academic achievement, contrary to the cases of their European American counterparts. However, Asian American parents tended to hold higher academic expectations than parents from other ethnic groups and to ensure education-related material resources, such as a study room and a computer (Kao). Similarly, Peng and Wright (1994), in their research on nationally representative eighth grade students, found that Asian American parents set higher educational expectations for their children, as compared to Hispanic, African American, and White American parents, which was a strong predictor of students' academic achievement. In contrast, Asian American parents spent less time discussing schooling and directly helping with homework than both African American and White American parents. In particular, parent-child discussion about schooling was unrelated to students' academic achievement in Asian American

students, whereas it had positive associations in White American counterparts (Peng & Wright).

Mau (1998) examined how parental involvement has differing influences on Asian immigrant, Asian American and White American tenth graders' academic achievement. Using student responses from NELS: 88, Mau (1998) clustered four types of parental involvement, including helping (e.g., helping with homework), controlling (e.g., limit time watching TV), supporting (e.g., selecting courses), and participating (e.g., attending school meetings). Results show that while Asian American parents were less likely to attend school activities than White American parents, Asian American parents had higher educational expectations, and their children spent more time on homework. In particular, parents participation in volunteering and school events were negatively related to Asian American students' academic achievement, whereas they were positively associated with White Americans' academic performance (Mau, 1998). In addition, both Asian immigrant and Asian American students perceived a greater controlling type of parental involvement than their White American counterparts (Mau, 1998). On the contrary, helping, supporting, and participating types of parental involvement were most frequently reported in White American students (Mau).

Similarly, Jeynes (2003), in his meta-analysis investigating the effects of parental involvement on ethnic minority students' academic achievement, found that the relations in Asian American students are complex. Parental involvement clearly contributes to the academic success of Asian American students, yet when examining specific dimensions, including parent-child discussion about schooling, parental

expectations for their children's academic achievement, parental participation at school meetings, and parenting style, the effects of most of parental involvement were no more statistically significant (Jeynes).

Factors Affecting Asian American Parent Involvement

In addition to the lack of consensus in structures of Asian American parental involvement, much less is known about factors affecting Asian American parental involvement. In particular, the literature identifies levels of acculturation, language proficiency, and socioeconomic status as contributors to variations in Asian American parental involvement (Chao & Tseng, 2002; Lew, 2006; Sy, 2006). These factors have also been seen as barriers, especially when parental involvement is narrowly defined as parents' participation in school events (Sy, 2006; Turney and Kao, 2009). However, given that many non-dominant groups of parents have become involved in their children's education in ways consistent with their cultural beliefs and socio-cultural resources (García Coll & Patcher, 2002; Hidalgo, Epstein & Siu, 2005), factors such as immigration status, English proficiency, and socioeconomic status should be examined as important indicators for developing a greater understanding of Asian American parental involvement (Sy, 2006).

Asian Cultural Belief: Studies indicate that traditional Asian cultural beliefs about home-school relation and education may significantly account for Asian American parents' distinctive patterns of involvement (Coll et al., 2002; Hwa-Froelick & Westby, 2003; Julian, McKenry, & McKelvey, 1994; Sy, 2006). Asian American parents tend to consider home and school as separate educational sectors

and view school personnel as authority figures, whose instructional and educational decisions may not be challenged (Lee & Manning, 2001).

For example, Hwa-Froelich and Westby (2003) conducted qualitative interviews with Vietnamese American parents, examining participants' perceptions toward parenting roles and beliefs. The authors found that Vietnamese American parents did not include parent-school contacts as involvement practice. Further, when parent-school contacts were introduced, parents had difficulties in understanding how this type of involvement could contribute to child's educational success and why school promoted the practice (Hwa-Froelich & Westby, 2003)

Literature suggests that Confucian-oriented Asian traditional values, including emphasis on cognitive attainment and hard work, may lead Asian American parents to focus on socializing children for academic achievement, and thus, to become more involved in teaching and monitoring children at home rather than directly interact with schools (Asakawa & Csikszentmihalyi, 1998; Chao, 1996; Goyette & Xie, 1999; Ho, Peng, & Lai, 2001; Okagaki & Frensch, 1998; Sy, 2006). In particular, Asian American parents communicate the importance of academic achievement by structuring their child's after-school time and ensuring that child's daily engagement in academic study (Asakawa & Csikszentmihalyi, 1998; Schneider & Lee, 1990; Yao, 1985).

For instance, many Chinese American immigrant parents attempt to enhance their child's academic achievement by using complementary involvement strategies, such as creating extra homework, as well as enrolling their children in "cram schools" and Chinese language schools (Hidalgo, Epstein & Siu, 2005; Wu, 2001).

Immigration: The migration process has greatly affected child-rearing and parental involvement practices (Chiu, Feldman, & Rosenthal, 1992). For example, Lin and Fu (1990) found that immigrant Chinese mothers fell between Chinese and European American mothers in their rates of exerting parental control. Similarly, Mau (1998) found that Asian immigrant parents showed the lowest levels of involvement followed by U.S.-born Asian American parents. White American parents showed the highest levels of school-based parental involvement. According to the Siu and Feldman's studies (1995, 1996), American-born Chinese American parents were different from immigrant Chinese American parents in their school involvement. Whenever available, U.S.-born Chinese American parents actively participated in school committee meetings (Siu and Feldman, 1995, 1996). These findings suggest that immigration related factors such as limited English and unfamiliarity with dominant cultures need to be considered in examining Asian American parental involvement.

Studies suggest that Asian American immigrant parents perceive their limited English proficiency and unfamiliarity with American educational systems frequently present great challenges to their involvement with children's schooling (Lew, 2006; McCaleb, 1997; Trumbull, Rothstein-Fisch, & Greenfield, 2000). Lack of English proficiency, along with reluctance to challenge school personnel, may aggravate Asian American parents' unwillingness to speak out and advocate for their children in school settings (Siu, 1996). Similarly, Turney and Kao (2009), in their recent study, found that Asian immigrant parents reported greater barriers to participation at their children's schools than the parents from other ethnic groups. Further, the length of

parents' residence in the United States and English proficiency were positively related to their participation in their children's school (Turney & Kao). In particular, controlling for English proficiency and length of residence in the United States decreased the differences between Asian and White foreign-born parents in their school involvement rates (Turney & Kao, 2009).

Family Socioeconomic Status: Another important factor impacting Asian American parental involvement practice is family socioeconomic status, including family income, parents' educational attainment, and occupations (Sy, 2006; Sohn, 2007). With limited financial resources, parents from lower socioeconomic status are less able to be actively involved in their children's education at home and in school, in spite of their educational aspiration for their children (Astone and McLanahan, 1991; Epstein, 1990; Lareau, 2003; Louie, 2001, Lew, 2007; Sy, 2006). For example, Louie (2001) found that working-class first generation immigrant Chinese parents were less likely to provide educational guidance and support than their middle-class counterparts. Similarly, Lew (2007) in her comparative research on both middle-class and working-class Korean American students, found that middle-class parents were able to compensate their cultural and linguistic barriers by providing private tutoring, which was not the case with their working-class counterparts (Lew, 2007).

Along with financial status, parents' levels of education may also greatly affect parental involvement practices (Sy, 2006). In particular, parents with lower levels of education are less able to assist their children with schooling. For instance, many Southeast Asian parents, who immigrated as refugees, lack formal educational experiences and English skills to participate in the school or to help their children

with homework (Hill & Tylor, 2004). Additionally, parents' occupational status influences parents' capacity to become involved in their children's education. Many Asian American immigrant parents, who are self-employed in ethnic enclaves, not only have limited interactions with mainstream culture, but also have little time to visit school or provide their children home-supervision due to their extended work schedule (Sohn, 2007; Rhee, 2009). These parents are more likely to have greater difficulties in their educational involvement either at home or in school.

Social Capital Theory and Parental Involvement

Social Capital Theory can provide a conceptual foundation for examining how Asian American parents' social and cultural contexts, including migration status, family socioeconomic status, and social networks, influences their involvement in the schooling of their children. Over the last two decades, Social Capital Theory has emerged as an important topic when examining how social contexts influence student outcomes (Lin, 2001). Social capital is generally defined as various forms of actual and potential resources transmitted through one's social relations (Bourdieu, 1986; Coleman, 1988; Lin 2001). Portes (1998) distinguishes social capital from other forms of capital, stating that "whereas economic capital is in people's bank accounts and human capital is inside their heads; social capital inheres in the structure of their relationships" (Portes 1998, p. 7).

The majority of educational research on social capital has been guided by the pioneering works of Bourdieu (1986) and Coleman (1988, 1990). Both theorists emphasize the role of social relationships in one's achievement and educational attainment. In particular, Coleman (1988) introduced two examples of the mechanism

where social capital can promote the educational success of students: intergenerational closure and parent-child interactions. According to Coleman (1988), social capital within the family context focuses on transmission of affections and norms that promote a child's school success through "parent-child relations." Parents exert intellectual, emotional and normative influences on their child while directly helping with learning, providing encouragement and conveying academic aspiration for their children (Coleman, 1988, 1990; Hovart, Weininger, & Lareau, 2003; Dika & Singh, 2002).

In contrast, the term "intergenerational closure" denotes social capital outside the family context (Coleman, 1988, 1990; Hovart, Weininger, & Lareau, 2003; Dika & Singh, 2002). For instance, parents' social ties to other parents in their child's schools can create social environments that are conducive to educational success. Social connections among the parents of school peers enable exchange of valuable information and joint supervision of children by parents, and thus, reinforce norms and expectations that facilitate students' academic achievements and positive behaviors (Coleman, 1988; Portes, 1998; Stanton-Salazar, 1997). Social capital embedded in intergenerational closure has been a most widely used indicator of social capital as applied to educational issues (Carbonaro, 1998; McNeal, 1999; Muller, 1993; Sheldon, 2007).

Research findings provide empirical evidence that parents' social networks are positively related to the levels of parental involvement (Sheldon, 2002, 2007). For example, parents who maintained social networking with parents from their children's schools obtained more access to and exchanged more school-related

information including school policies (Lareau & Shumar, 1996; Useem, 1992). In addition, Sheldon (2002) found that even after controlling for parental beliefs and demographic backgrounds, the number of social connections among elementary school parents significantly affects the levels of parental involvement both at home and in school. Further, parents reporting more social interactions with other parents from their children's schools demonstrated higher levels of involvement at home and in school (Sheldon, 2002).

Parents' Migration Status and Social Capital

Kao and Rourtherford (2007) examined the relationship between parents' ethnic minority and migration status and their social capital, measured by the size of parents' social ties to other parents in schools and the levels of parental school involvement. Research findings suggest that Asian and Hispanic first-generation immigrant parents showed lower levels in both forms of social capital, as compared to native-born White parents. Kao and Rourtherford (2007) argued that ethnic minority immigrant parents are more likely to have difficulties in forming relationships with other parents and engaging themselves in school due to their limited English proficiency and unfamiliarity with the American mainstream culture. This may disadvantage first-generation Asian and Hispanic immigrant parents in their access to education-related social capital (Kao & Rourtherford, 2007).

Family Socioeconomic Status and Social Capital

Researchers have also suggested that racial and class differences influence the construction of parental social networks, and thus, may reproduce "inequality" in parental social capital and parental involvement (Bourdieu, 1977; Lin, 2001; Stanton-

Salazar, 1997). Hovart, Weninger, and Lareau (2003), in their ethnographic research, compared the nature of social networks across parents from different social classes. The authors found that middle-class parents had larger social networks in their children's schools, as well as used their social ties far more often to intervene in schools than their working-class counterparts. In addition, middle-class parents were able to actively include key professionals such as teachers into their social networks, whereas working-class parents' social ties were primarily limited to their extended families. With greater access to professionals, middle-class parents were more likely to become effectively involved in their children's schooling and to serve as successful advocates for their children (Hovart, Weninger & Lareau 2003).

Social Capital and Asian American Parental Involvement

With respect to Asian American immigrant groups, social capital has been largely investigated within the context of parent-child interactions. For example, studies point to Asian American parents' high academic expectations for their children as an important form of social capital (Sun, 1998; Hwang, 2002). Educational attainment is highly appreciated according to Asian Confucian-oriented cultural values. The main reason why many Asian families immigrate to the United States is to provide better educational opportunity for their children (Yagi & Oh, 1995; Ying, 1999). Asian American parents, who adhere to these values, may constantly emphasize the importance of education for their children's future success through the family socialization process (Chen & Stevenson, 1995; Steinberg, Dornbusch, & Brwon, 1992). Studies point out that these norms and expectations lead Asian

American students to have a strong sense of family obligation to excel in schools, which, in turn, contributes to their academic success (Liu, 2006).

Several studies also examined Asian American parents' social capital outside of family context, by looking into the characteristics of their social networks and community memberships. Sun (1998), for instance, found that, compared to other forms of capitals, East-Asian American parents invested much less in outside family social capital, which was measured by the number of other parents known and whether the parent belongs to organizations with other parents at schools. Interestingly, despite the overall low levels, adding the effect of parents' outside family social capital raised the academic advantage of Asian students. The research finding suggests that East Asian American parents may make greater contributions to their children's academic achievement with their increased investment in outside family social capital (Sun, 1998).

Research shows that ethnic community social ties, such as ethnic entrepreneurship, churches, and community organizations provide trust and reinforce values and norms that are conducive to students' educational success (Diamond, Wang, & Gomez, 2006; Hwang, 2002; Kao, 2007; Sun, 1998). For example, Zhou and Bankston (1998) observed a Vietnamese community in New Orleans and found that strong social ties among parents served as a sanction for the traditional ethnic cultural values and norms that promoted their children's academic achievement. In addition, parents' co-ethnic social ties affect their parenting strategies, including involvement practice in their children's education. Immigrant parents often rely on members in their ethnic community to compensate for their lack of human and

material resources (Diamond, Wang, & Gomez, 2006; Hwang, 2002; Kao, 2007; Sun, 1998). Lew (2006), for example, showed that memberships to strong co-ethnic community organizations allowed Korean American immigrant parents to gain access to important schooling information, as well as to overcome their cultural and linguistic barriers to their educational involvement (Lew, 2006).

Social Capital Theory Applied to the Current Study

According to the social capital theory (Coleman, 1988, 1990), social relations through which parents can promote their children's educational success can be divided into at least three domains: parent-child, parent-school, and parent-community and/or other parents. First, parental involvement practices entailing parent-child interactions, such as discussing schoolwork and structuring after-school time, can be conceptualized as a form of social capital to promote a child's educational success. Second, parental involvement practices through parent-school interactions, including volunteering and participating in school meetings can be understood as another form of social capital, which can enable parents to be informed advocates by increasing their knowledge about the school's educational expectations and policies. Lastly, parent-community and/or other parents' interaction domains can be viewed as important social channels, through which parents share information and support, as well as transmit norms embedded in the community and enhance values conducive to educational success (Kao & Rutherford, 2007).

The current study, guided by the social capital theory, will examine Asian American parental involvement within both parent-child and parent-school social relation dyads. In addition, the present study particularly examines the effects of

parental social capital, as parents' social networks with other parents from a child's school on their educational involvement. A variety of education-related resources that exist among parents in different households, such as information exchanging and norm-reinforcement, have been a most widely used indicator of social capital as to educational issues (Carbonaro, 1998; McNeal, 1999; Muller, 1993; Sheldon, 2007). Drawing upon the literature review, social capital measures in the current study include parents' engagement in any neighborhood or religious organizations with parents from their child's school and parents' knowledge about their child's close friends and their parents, along with frequency of exchanging information and supports with those parents.

Summary

This chapter provided a literature review of parental involvement in general and Asian American parental involvement, along with social capital theory, in particular. Research findings regarding the parents' socio-cultural factors that may affect Asian American parental involvement were examined. The factors include parents' social capital as social networks, length of residence in the United States, English proficiency, and social class. In addition, social capital theory was introduced as a guiding conceptual framework for the current research.

CHAPTER 3

METHODOLOGY

This chapter will introduce the methodology and design that will be used to examine the following question:

To what extent do Asian American immigrant mothers' social capital, length of residence in the United States, degree of English proficiency, and social class, relate to each of the dimensions of Asian American parental involvement?

In this study, five dimensions of Asian American parental involvement were identified. The five dimensions include parent engagement in social activities with her child, parent positive school contact, parent monitoring, parent school contact for problems, and parent participation at school functions.

Data and Sample

Data

To explore the proposed research questions, the current study used the restricted version data drawn from the base-year parent questionnaire of the Educational Longitudinal study of 2002 (ELS: 2002). ELS: 2002 dataset is especially relevant to the present study for several reasons. First, the ELS: 2002 data contain a range of variables that examine parental educational involvement practices and parents' backgrounds, such as family socioeconomic status, the length of residence in the United States, English proficiency, and social networks. Second, the dataset provides a nationally representative sample and information about the latest trends of high school students and their parents. Lastly, oversampling of Asian American

students and their parents allows the researcher to have a large enough sample size in order to make the analyses statistically robust.

The ELS: 2002 base-year data were collected during the spring term 2002, when high school students were in their sophomore year. The sampling procedure was stratified and conducted in two-stages. In the first stage, 752 public, private, and Catholic schools representing about 23,000 schools were selected using probability proportional to size. In the second stage, approximately 26 sophomore students per school were randomly selected to participate in the survey (U.S. Department of Education, NCES, 2004). As a result, 15,326 tenth graders, representing 3.6 million tenth graders were sampled for the ELS: 2002 base-year survey. Some subgroups were oversampled to provide sufficient power for analyses of smaller population groups such as Asians and Hispanics. In particular, Asian American students were over-sampled by including two or three more Asian American students per school in order to ensure a large enough sample size (U.S. Department of Education, NCES, 2004).

The data also includes survey results from students' parents, teachers, school administrators, and librarians. In particular, the parent questionnaire examines a variety of information related to parental educational expectations, family background, parents' involvement with their children's home and school lives, and parents' views about their children's schools. The ELS: 2002 base-year parent questionnaire was provided only in English and Spanish. The parent questionnaire was mailed to all the participating students' homes with written instructions, explaining the purpose of the research. The parent who was most frequently engaged in the student's school

education was asked to complete the questionnaire. Parents who had not responded within four weeks after the initial mailing were contacted and asked to complete either a written survey or computer-assisted telephone interviews. For the parents who were reluctant to participate in the survey, a shortened phone interview was conducted to collect important demographic information only. The total weighted number of parent respondents was 13,488 (87.4% of the total student participants) (U.S. Department of Education, NCES, 2004).

Analytical Sample

The analytical sample for the present study consists of 597 Asian American immigrant biological mothers of tenth graders, who completed the base-year ELS: 2002 parent questionnaire and identified themselves as Asian Americans based on the parent's race ethnicity composite variable (BYPARACE). For the purpose of the present study, Hawaiian and Pacific Island mothers as well as Asian American mothers who are biracial were excluded.

Biological mothers were selected as the target sample for two reasons: one, the majority of respondents, who completed the questionnaire as major caregivers for their children were biological mothers rather than fathers or other types of guardians (678 out of 1,190 Asian American parents) and two, ELS: 2002 includes information regarding the time parents spent in the United States only for the tenth grader's biological mother and father. The mother's relationship to the tenth grader was measured by one item, "What is your relationship to the tenth grader?" (BYP 01)

The present study included Asian American mothers who were born in another country/area only. Mothers' immigrant status was measured by the item that

asks whether the tenth grader's biological mother was born in the United States or in another country/area (BYP 17). One of the primary purposes of the study was to examine how the length of the mother's residence in the United States, a proxy for her familiarity with American mainstream culture, predicts her parental involvement. When examining the effect of the length of residence in the United States, it is important to separate immigrant and non-immigrant mothers and compare the two groups. The length of residence in the United States is more likely to play a different role between immigrant and non-immigrant mothers. However, it was not feasible due to the small sample size of Asian American biological mothers who were born in United States. The frequency analysis result indicates that the number of Asian American biological mothers who were born outside the United States was 603, while the number of Asian American biological mothers who were born in the United States was only 61. Alternatively, only 603 mothers who were born outside of the United States were included as a "base sample." This solution made the current research more specific.

Six cases were deleted from the "base sample" because the cases had missing data on socioeconomic status (BYSES) and tenth grader academic achievement (BYTXCSTD) variables. Missing value analysis and imputation were conducted with the final base sample (n=597) (See "Missing Values" section below).

Subgroup differences were examined to consider cultural heterogeneity among Asian American mothers. The restricted version of the ELS: 2002 dataset consists of six Asian American parent subgroups, including Chinese, Filipino,

Japanese, Korean, Southeast Asian (Vietnamese, Laotian, Cambodian/Kampuchean, Thai, and Burmese), and South Asian (Asian Indian, Bangladeshi, and Sri Lankan).

Weights and Design Effect

Weights

Because Asian American students were over-sampled in the ELS: 2002 dataset, weights were applied to all the analyses in the current study. Weights bring subgroups back to the right proportions relative to the population. In the ELS: 2002 data, weights are assigned to schools and students according to their probabilities of selection. Values of the weights for each student are inversely proportional to their probabilities of selection (2009 July ELS: 2002-NELS Database Training).

The ELS: 2002 data set provides a *Base year student weight* (BYSTUWT) for every individual in the sample corresponding to the number of individuals in the population that person represents. Because Asian students were selected with a somewhat higher probability of selection, their student weights would be accordingly lowered to a smaller amount. Using BYSTUWT, weight for each of Asian students was adjusted appropriately (2009 July ELS: 2002-NELS Database Training).

Although BYSTUWT is a weight for students, it can be equally used for parents because the ELS: 2002 survey responses were collected from one parent per student. In other words, the current study analyzed data from “parents of Asian American students” in the ELS: 2002 dataset (2009 July ELS: 2002-NELS Database Training).

The final normalized weight was calculated as follows:

$$\begin{aligned} \text{Newt} &= \text{BYSTUWT} / \text{mean of the BYSTUWT} \\ &= \text{BYSTUWT} / 96.785618 \end{aligned}$$

Design Effect

To consider the complex sample design of the ELS: 2002, a design effect equation was applied to the current research analysis. The 95% confidence interval was calculated in two ways. First, standard error was calculated by assuming that the current data were collected through simple random sampling. Next, the variance error obtained when assuming random sampling was multiplied by an average design effect of 2.25. The ELS: 2002 User's manual provides the average of parent-level design effect for data from parent respondents (U.S. Department of Education, NCES, 2004).

Below is the equation for the design effect that will be applied for the current study

$$\pm 1.96 \left\{ \sqrt{(\text{Variance error by assuming simple sampling} \times 2.25)} \right\} \quad (1)$$

Missing Values

Missing Data Analysis

Participants' responses that were coded as, simply missing, do not know, non-response, multiple responses, refused, out of range, partial interview break-off, and legitimate skip/not available were all regarded as missing data in the sample. The problem with missing data is that they may result in loss of information about the sample. In particular, missing data can cause a sample to be non-representative of the population (Schafer & Graham, 2002). A missing data analysis was conducted to estimate the amount and pattern of missing data in the current study.

The Amount of Missing Data: The scope of missing data for the variables in the current research was examined through frequency analysis. Appendix A shows the proportion of missing data for each variable. The result of frequency analysis reveals that missing data were scattered over all the survey questions, primarily because of respondents' partial interview break-off (approximately 18% of each question). Partial break-off coding was used when the respondents could not be reached during the interview or terminated the interview before completion (U.S. Department of Education, NCES, 2004). Overall, the percentage of missing data per survey question ranged from 0% to 37%. In particular, question 31 a, b, c, and d, showed higher rate of missing data (e.g., around 31%). However, 13% out of 31% missing data stemmed from non-responses of 74 Asian American immigrant mothers whose native language is English. Question 28 asks mothers whether English is their native language (the first language they learned to speak when they were children). The ELS: 2002 survey requested mothers who checked yes on the question 28 to skip question 31 a, b, c, and d. The amount of missing data for questions that ask whether the mother knows about the second and third friends of her child as well as the friends' mothers and fathers, are greater than the amount of missing data for those asking about the child's first friend and their parents (e.g., the percentage of missing data for knowledge about the first friend is 27.4% while that of missing data for third friend is 37.4%). Several variables, including SES, child's academic achievement, and school urbanicity had no missing data.

The Pattern of Missing Data: The SPSS Missing Value Analysis (MVA) was conducted to identify whether missing data occurs *completely at random* (MCAR) or

not. First, MVA divides the respondents for each question into those with and without missing data. Second, t-tests of mean differences on key categorical variables such as mother's highest level of education and marital status are conducted to examine whether the two groups differ significantly. The SPSS Missing Value Analysis also provides Roderick J.A. Little's chi-square statistic. The statistic confirms whether the overall missing data patterns for the current study are *missing completely at random* (MCAR) or not. In this test, the chi-square examines significant differences between expected and observed missing patterns. If the Little's p-value is less than 0.05, the data is not missing completely at random (Hair et al., 2008). The result of the SPSS Missing Value Analysis for 48 survey questions from the current research indicates p-value of .004. This confirms that the missing data did not occur in a random fashion.

** Little's MCAR test: Chi-Square =5684.288, DF =5400, Sig. = .004

The mean differences were examined in the distribution of “missing” and “non-missing” groups for each of survey questions on the socioeconomic status variable, which has no missing data. The results of individual sample t-tests suggest that there are statistically significant differences in “mean” SES between cases with “missing” data and cases with “non-missing data” for the each survey question. The results confirmed that there is statistically significant SES mean difference between cases with missing data and cases with non-missing data for all the 48 survey questions at the 0.05 level.

Lastly, the SES mean differences were compared between cases without missing data ($N=242$) and cases with missing data ($N=354$) on all the 48 survey questions. There was a significant difference in SES mean score between cases

without missing data ($M=.24$, $SD=.87$) and cases with missing data ($M=-.13$, $SD=.88$); $t(595) = 5.27$, $p = .000$. The actual mean difference was .38, almost half of a standard deviation on SES. These results suggest that mothers of higher SES groups are more likely to answer the survey questions. Therefore, the missing pattern is not *missing completely at random* (MCAR).

In sum, missing data for the current study is not ignorable, considering both the amount (about 20~37%) and the pattern (e.g., missing completely at random cannot be confirmed). As a result, simple case deletion such as a listwise method is not appropriate. A listwise deletion may further reduce sample size as well as yield the estimation bias especially when missing pattern is not missing completely at random (MCAR) (Croninger & Douglas, 2005).

Treatment of Missing Data: For the current research, missing data were treated in three ways: recoding, item-deletion, and imputation. First, the values for the question “How well parents understand, speak, read, and write English?” (BYP 31a, BYP31b, BYP31c, and BYP31d) were recoded, including a new value 4, which indicates the highest level of English proficiency (e.g., 0= not at all, 1=not well, 2= well, 3=very well, 4=native). Around 13% of missing data for questions regarding parents’ English proficiency resulted from the ELS: 2002 survey design. Mothers, who identified themselves as native speakers, were asked to skip the question BYP 31a, BYP31b, BYP 31 c, and BYP31d. The number of native-speaking mothers was 74. After recoding, the rate of missing data for English proficiency questions decreases from 32% to around 19%.

Secondly, items pertaining to parents' knowledge about child's second and third friends and their parents were excluded from the present study. In the current research, the social capital scale was developed by incorporating "respondents' knowledge about their children's friends and their parents" component. The amount of missing data for questions that ask whether the mother knows about the second and third friends of her child as well as their friends' mothers and fathers, is greater than the amount of missing data for those asking about the children's first friends and their parents. For example, the percentage of missing data for mother's knowledge about the first friend is 27.4%, whereas that of missing data for a third friend is 37.4%. By including items regarding a child's first close friend and their parents only, the rate for missing data of social capital scale decreases up to 10%.

Lastly, model-based imputation methods were applied because the missing pattern was non-random. Imputation estimates the missing value based on the valid values of other variables in the sample (Hair et al., 2006). One of the most common approaches is the imputation with the "Expectation-Maximization" (EM) Algorithm (Croninger & Douglas, 2005). The EM approach is an interactive two-stage process where the E stage makes the best possible estimates of the missing data and the M stage makes an estimate of the parameters such as mean, standard deviation, and correlations, given the missing data that were substituted. The E and M stages are interchanged until the changes in estimated values are negligible (Hair et al., 2006; Croninger & Douglas, 2005). The original data from 42 survey questions was imputed, using the EM imputation function provided by SPSS for Windows, version 17.0 missing value analysis module.

Parent's Asian subgroup variable was excluded from imputation procedure. The E-step of the EM algorithm imputation substitutes missing data with its expected values based on the observed values and the current parameter values (Schafer & Graham, 2002). In this study, EM method may allow imputation of missing Asian subgroup data given the observed values, including mother's level of education, occupational status, and total family income. However, there is possibility of inaccuracy in that it simply estimates one's expected subgroup membership based on several demographic information of the individual. Further, with the application of EM method, the number of the specific subgroups, such as Japanese increased disproportionately.

Variables

Independent Variables

Parent's social capital: Social capital was measured by developing a scale that captures parents' interactions with other parents in their child's school, as well as parents' connections to the child's school organizations and community. A total of eight items were included to construct the scale. First, one item from the parent questionnaire was drawn to estimate whether the parent belonged to any neighborhood or religious organization with parents from their child's school (BYP 54e). Parents responded in a dichotomous format (0= "no", 1= "yes"). Another three items were drawn to assess whether parents knew about their child's first close friend, the friend's mother, and father (BYP 59 Ca, BYP 59Da, and BYP 59Ea). Three dichotomous answers (0= "no", 1= "yes") were summed up. The scale also included four items that ask how often the respondents received advice about child's schooling

from the parent of their child's friend (BYP 60a), and exchanged favors with child's friend's parent (BYP 60b and BYP 60c), as well as how often the parent of a child's friend provided supervision of the respondent's child in an educational outing or field trip (BYP 60d). Parents responded on a 4-point Likert scales from 1 = "none," 2 = "once or twice," 3 = "three or four times," and 4 = "more than four times." All these items were recoded as 0= "none", 1= "once or twice," 2 = "three or four times," and 3 = "more than four times."

A standardized composite scale was constructed based on the sum of three, equally weighted, standardized components: whether parents belong to any neighborhood or religious organizations with parents from their child's school, parent's knowledge about her child's first friend and the friend's parents, parent's exchanging favors and support with parents of her child's friend. First, one binary response for whether parent belonged to any neighborhood or religious organizations with parents from their child's school was standardized. Next, three dichotomous responses for parent's knowledge about her child's first friend and the friend's parents were summed up and standardized. Lastly, four responses of the extent to which the parent exchanged favors and support with the parents of her child's friends were summed up and standardized. A total score of the parent's social capital composite variable was created by summing up all three standardized scores. Cronbach's alpha coefficient score was calculated to examine the internal reliability among eight items. The Cronbach's alpha score for the summated social capital scale is .73 (See Table 1).

Table 1 *Descriptions of Independent Variables*

Variable	Descriptions
Independent Variables	
Parent's social capital	<p>Continuous variable</p> <p>A social capital composite variable was created by summing up three standardized scores for parent's participation in school organizations with other parents, knowledge about child's friends and their parents, and frequency of parent's exchanging support and information with other parents</p> <ul style="list-style-type: none"> • BYP54-e Parent's membership in any organization with several parents from her tenth grader's school (0 = "no"; 1 = "yes") • BYP 59-ca, 59-da, and 59-ea Parent's knowledge about child's first close friend as well as the first friend's mother and father (0 = "no"; 1 = "yes") • BYP 60a~d Frequency of parent's exchange advice about teachers or courses of tenth grader's school, favors, and supervision (0 = "none," 1 = "once or twice," 2 = "three or four times," and 3 = "more than four times.")
Length of parent's residence in the United States	<p>Continuous variable</p> <p>One item measures years that parent lived in the United States</p> <ul style="list-style-type: none"> • BYP 18 How many years ago did biological mother come to the United States?
Parent's English proficiency	<p>Continuous variable</p> <p>A summated scale was created by summing up the following four items related to level of parent's English fluency</p> <ul style="list-style-type: none"> • BYP 31-a~d. The degree to which parent's doing well understanding, speaking, reading, writing English (0= "not at all", 1="not well", 2="well", 3="very well", and 4= "native")
Parent's social class	<p>Continuous variable</p> <p>A standardized composite index was constructed based on the sum of standardized components: Both parents' education, occupations, and family income.</p> <ul style="list-style-type: none"> • BYSES

Parent's Length of Residence in the United States: Parents' time spent in the United States was measured by the years of the tenth grader's biological mother's living in the United States. The current study defines mothers who were born outside of the United States as immigrants. For these mothers, the length of residence in the United States was measured by the item asking "How many years ago did the tenth grader's biological mother come to the United States to stay?" (BYP 18)

Parent's English Proficiency: Parents' English proficiency was measured by four items that ask parents how well they do in understanding spoken English (BYP 31a), speaking English (BYP 31b), reading English (BYP 31c), and writing English (BYP 31d) with ratings from very well to not at all (1 = "very well," 2 = "well," 3 = "not well," 4 = "not at all"). In the current study, items were reverse recoded (0 = "not at all," 1 = "not well," 2 = "well," and 3 = "very well") so that the higher score represent higher proficiency of English. Also, the ELS: 2002 survey asked mothers whether English is their native language (the first language they learned to speak when they were children) (BYP 28). 74 Asian American immigrant mothers identified English as their native language. English proficiency of these mothers was recoded with new value 4, which indicates the highest level of English proficiency. While adult non-native speakers may acquire certain levels of proficiency of a second language (e.g., English), they still experience difficulties in obtaining the relevant speed and intuitions for grammatical judgment (Davies, 2003). Thus, it is reasonable to assume that Asian American native-speaking mothers' English proficiency across understanding, speaking, reading, and writing is higher than that of non-native mothers. In sum, the values for question BYP 31 a, b, c, and d were recoded as

follows: 0 = “not at all,” 1 = “not well,” 2 = “well,” 3 = “very well,” and 4 = “native-speaking.” All of the four responses were summed up to create the total score on the parent’s English proficiency scale for the current study. Cronbach’s alpha coefficient score was calculated to examine the internal reliability among four items. The Cronbach’s alpha score for the summated English Proficiency scale is .98.

Parent’s Social Class: Family social class was measured by a composite variable derived from the base-year parent questionnaire. The base-year ELS: 2002 dataset provides a standardized composite Z score index for SES (BYSES) (U.S. Department of Education, NCES, 2004). A standardized composite index was constructed based on the sum of five equally weighted standardized components: father’s education, mother’s education, father’s occupation, mother’s occupation, and family income. From the imputed sample of 597 Asian American immigrant mothers, Z score for SES ranges -2.11 to 1.80. The mean score of SES is .021 and the standard deviation is .89.

Dependent Variable

Asian American Parental Involvement: In the current study, the dependent variable is Asian American parental involvement. Parental involvement was assessed by five subscales. Table 2 explains how the subscales were constructed. Four factors were extracted from an explanatory factor analysis and one additional subscale was constructed by summing up four binary items. Initially, a total of twenty-four items were selected from the ELS: 2002 base-year Parent Questionnaire to create subscales reflecting the construct of Asian American parental involvement.

Next, a principal components factor analysis, using varimax rotation was conducted for twenty items. First, ten items pertaining to the frequency of parent's contacts with child's school about a variety of topics (e.g., good behavior, poor attendance, helping with homework, and plans after high school) were identified. Sample items include "Since your tenth grader's school opened last fall, how many times have you contacted the school about your tenth grader's poor performance in school?" (BYP 53a) "How many times have you contacted the school about your tenth grader's school program for this year?" (BYP 53b) These items were measured on a 4-point Likert scale, ranging from "1 = none," "2= once or twice," "3 = three or four times," and "4 = more than four times." Second, four items related to parents' educational involvement at home were selected. Sample items included "How often do you check that your tenth grader has completed all homework?" (BYP 55a)

Items that fall into the second category were measured on a 4-point Likert scale, ranging from "1 = never," "2 = seldom," "3 = usually," and "4 = always." Third, six items assessing the frequency of parent engagement in activities with her child were included. Sample items involve "Looking back over the past year, how frequently did you and your tenth grader participate in attending sporting events outside of school?" (BYP 57d) Items that fell into the third category were measured on a 4-point Likert scale, ranging from "1 =never," "2 = rarely," "3 = sometimes," and "4 = frequently." A total of five items were eliminated out of twenty items. Three items had cross-loadings greater than .40 and had similar factor loadings between .4 and .5 on more than one factor. Another two items were deleted due to the lack of conceptual meaningfulness.

Table 2 *Descriptions of Dependent Variable*

Variable	Descriptions
Dependent Variables	Asian American Parental Involvement
<p>Dimension 1: Parent engagement in social activities with her child</p>	<p>Continuous variable The summated subscale score was calculated by summing up and averaging the following four items</p> <ul style="list-style-type: none"> • BYP 57-a, c, d, and e <p>How frequently did the parent attend school activities, concerts, sporting events outside of school, and religious services with her tenth grader? (1 = “never,” 2 = “rarely,” 3 = “sometimes,” and 4 = “frequently.”)</p>
<p>Dimension 2: Parent positive school contact</p>	<p>Dichotomous variable The summated subscale score was calculated by summing up and averaging the following four items</p> <ul style="list-style-type: none"> • BYP 53-b, c, d, and g <p>How frequently has the parent contacted school for course work selection, post high school plans, and tenth grader’s positive behavior in school, and school programs since last fall? (1 = “none,” 2 = “once or twice,” 3 = “three or four times,” and 4 = “more than four times.”)</p> <p>The responses were divided into two groups according to the subscale score (0 = “did not contact school at all,” otherwise, 1= “contacted school at least one time”)</p>
<p>Dimension 3: Parent monitoring</p>	<p>Continuous variable The summated subscale score was calculated by summing up and averaging the following four items</p> <ul style="list-style-type: none"> • BYP 55-a, b, c, and d <p>How frequently does the parent check homework completion, discuss report card, enforce curfews on school nights, and know where her tenth grader is? (1= “never”, 2= “seldom”, 3= “usually”, and 4= “always.”)</p>

(Table 2 continued)

Variable	Descriptions
Dependent Variables	Asian American Parental Involvement
Dimension 4: Parent school contact for problems	<p>Dichotomous variable</p> <p>The summated subscale score was calculated by summing up and averaging the following three items</p> <ul style="list-style-type: none"> • BYP 53-a, e, and f <p>How frequently has the parent contacted school for her tenth grader's poor performance, poor attendance record, and problem behavior in school since last fall? (1 = "none," 2 = "once or twice," 3 = "three or four times," and 4 = "more than four times.")</p> <p>The responses were divided into two groups according to the subscale score (0 = "did not contact school at all," otherwise, 1 = "contacted school at least one time")</p>
Dimension 5: Parent participation in school functions	<p>Dichotomous variable</p> <p>The summated subscale score was calculated by summing up the following four items</p> <ul style="list-style-type: none"> • BYP 54-a~d <p>Does the parent belong to school's parent-teacher organization, attend meetings of the parent-teacher organization, and participate in activities of the parent-teacher organization?</p> <p>Does the parent act as a volunteer at the school? (1 = "none," 2 = "once or twice," 3 = "three or four times," and 4 = "more than four times.")</p> <p>The responses were divided into two groups according to the subscale score (0 = "did not participate at all," otherwise, 1 = "participated in school functions")</p>

A principal components factor analysis of the remaining 15 items, using varimax rotation, was conducted with the four factors explaining 61.9 % of the variance. All items had primary loadings over .40. The final factor loading matrix and other detailed information about factor analysis are presented in chapter four.

An additional subscale was extracted from four binary questions measuring parents' participation at school functions. The four items are pertaining to whether parents participated in activities related to parent-teacher organization (PTO) (BYP 54a, BYP 54b, and BYP 54c) and volunteering (BYP 54d). These items were excluded from principal components factor analysis due to their differences in metrics (e.g., binary responses, 0 = "no" and 1 = "yes"). Instead, a subscale was constructed by summing up four dichotomous responses.

The final five subscales of parent involvement include (a) parent-child engagement in social activities (four items, Cronbach's alpha = .77), (b) parent positive school contact (five items, Cronbach's alpha = .78), (c) parent monitoring (four items, Cronbach's alpha = .67), (d) parent school contact for problems (three items, Cronbach's alpha = .70), and (e) parent participation in school functions (four items, Cronbach's alpha = .76).

Summated subscale scores were created for four dimensions of Asian American parental involvement by taking the mean of the items, which had their primary loadings on each factor. For the parent participation in school functions dimension, the subscale score was calculated by summing up the four binary responses (0 = "no" and 1 = "yes"). Higher scores indicated greater use of the parental involvement strategy.

Parent positive school contact and parent school contact for problem dimensions, as well as the parent participation in school functions dimension had significantly positively skewed distributions. The transformation method was not adopted because it did not modify the skewness of the distribution. Instead, the three subscales were recoded in dichotomous forms (e.g., “Contacted or did not contact at all” and “Participated or did not participate at all”) for the purpose of logistic regression.

Control Variables

In addition, the current study included two control variables: child’s current academic achievement and school urbanicity. These control variables were selected based on the literature review (See Table 3).

First, tenth grader’s current academic achievement was included. Previous research suggests that parents are more likely to modify their involvement practices according to their child’s academic achievement (Crosnoe, 2001; Turney & Kao, 2009; Muller, 1998). For example, Crosnoe (2001) compared the levels of parental involvement between the college-preparatory track and the remedial track of high school students. The college-preparatory track group entered high school with higher levels of parental involvement yet showed greater decrease in involvement over time than the remedial track group. Furthermore, the decline in parental involvement was greatest among the most academically successful students from the college preparatory group (Crosnoe, 2001). When students are doing well in school, parents may perceive less need to monitor their children’s academic progress, and thus, allow their children more autonomy (Csikszentmihalyi & Schneider, 2000). Conversely,

parents may become more involved when their children are underachieving since parents view additional assistance and supervision are needed.

The ELS: 2002 base-year data provides a standardized composite score on reading and math (BYTXCSTD). This composite score is an average of tenth grader's math and reading standardized T scores. The standardized T scores provide norm-referenced measurement of students' achievement. In other words, students' reading and math achievement was assessed, compared to the entire spring 2002 tenth grader population (U.S. Department of Education, NCES, 2004).

Second, school urbanicity (BYURBAN) variable indicates locations of the tenth grader's school. The literature suggests that parental involvement differs across urban, suburban, and rural settings (Prater, Bermúdez, & Owens, 1997). For example, Prater and her colleagues (1997), in their research on 18,000 eighth grade students of the National Educational Longitudinal survey of 1988 (NELS:88), found that parents from urban and rural schools checked their children's homework completion and after-school activities more frequently than those from suburban schools (Prater et al., 1997). However, parents of urban students from the NELS:88 survey were less likely to discuss schooling with their children, compared to parents of rural and suburban students (Lippman, Burns, & McArthur, 1996).

The base year ELS: 2002 data provides information about school urbanicity of three categories: (1) urban: the school is in a large or mid-size central city; (2) suburban: the school is in a large or small town or is on the urban fringe of a large or mid-size city; and (3) rural: the school is in a rural area. The classification is based on Common Core of Data (CCD) for public schools and the Private School Survey (PSS)

for private schools (U.S. Department of Education, NCES, 2004). The frequency of school locale in the current study was urban ($n = 275$), suburban ($n = 293$), and rural ($n = 30$). The categories of suburban and rural areas were clustered together due to the small sample size for Asian American immigrant mothers in rural areas. As a result, the school urbanicity variable was recoded into a dichotomous form (1 = “urban” and 0 = “otherwise”).

Table 3 *Descriptions of Control Variables*

Variable	Descriptions
Control Variables	
Tenth grader's current academic achievement	<p>Continuous variable A standardized composite variable of reading and math T-score</p> <ul style="list-style-type: none"> • BYTXCSTD
School urbanicity	<p>Dichotomous variable 1 = Urban; 0 = Otherwise</p> <ul style="list-style-type: none"> • BYURBAN

Data Analysis

Descriptive Analysis

Descriptive analysis was conducted to summarize key demographic characteristics of all mothers in the study sample. Descriptive statistics were also reported for all measures in the current study, including means, standard deviations,

and score ranges. In addition, Cronbach's alpha coefficients were calculated to estimate internal consistency of each of the multi-item scale.

Factor Analysis

A factor analysis, using principal components analysis with varimax rotation, was conducted to examine the underlying dimensions of Asian American parental involvement. Principal components analysis was chosen because it is the most widely utilized method for data reduction and exploration of underlying factor structures (Hair et al., 2006; Field, 2009). The current study adopted varimax rotation, which is the most frequently applied method of orthogonal rotation. Orthogonal solutions tend to promote interpretability of factors by maximizing dispersions between rotated factors (Hair et al., 2006; Field, 2009). The Kaiser-Meyer-Olkin test for sampling adequacy was examined in order to assess whether or not the data were adequate for principal components factor analysis. Bartlett's test of sphericity was also examined. A significant ($p < .001$) result indicated that there was a sufficient correlation between the variables to conduct factor analysis.

The number of factors was determined by considering several criteria: Kaiser's criterion of eigenvalues greater than 1.0, scree-plot test, and conceptual meaningfulness of factors (Hair et al., 2006; Field, 2009). Items that had cross-loadings greater than .40 or had similar factor loadings between .4 and .5 on more than one factor were deleted and re-factor analyzed. Only factor loadings greater than .40 were considered "practically significant" (Stevens, 2002). Reliability of each subscale was tested by calculating Cronbach's alpha coefficients. Items were excluded if Cronbach's alpha coefficient for the scale increases when the specific

item was deleted. Item-total correlation was also examined. Item total correlation is the relationship between a specific item and the total subscale. In general, the value of item-total correlation above .30 indicates that the item is well correlated with the subscale (Hair et al., 2006).

Multiple Regression Analysis

A series of multiple regression analyses were conducted to examine the extent to which the selected independent variables predict each of two dimensions of the Asian American parental involvement: parent-child engagement in social activities and parent monitoring. The multiple regression method is used when more than one predictor predict a criterion variable (Lomax, 2007, p193). Independent variables include parent's social capital, parent's length of residence in U.S., parent's English proficiency, and parent's social class. Each of two dimensions of Asian American parental involvement was separately regressed on control and independent variables. Control variables were entered first in all regression models. All independent variables were subsequently entered in a single block.

The squared multiple correlation coefficients estimated whether all four predictors collectively explain statistically significant amount of variance in the criterion variable. In addition, partial slope coefficients were examined to assess if each individual predictor contributes statistically significantly to the variance of the criterion variable, controlling for the effects of other predictor variables.

Design effect was applied when calculating confidence intervals to properly account for the complex sample design of ELS: 2002. The significance of the regression coefficients was estimated with confidence intervals based on both simple

random sampling and complex sampling assumptions. As discussed earlier, the ELS: 2002 sample violates the assumptions of simple random sampling because the data were collected in stratified and clustered method. Student and parent participants were selected with unequal probabilities of selection and were clustered by schools (U.S. Department of Education, NCES, 2004). While clustering and unequal probabilities of selection may increase the variance of sample estimates, compared to a simple random sample, stratification may decrease the variance of estimates. Therefore, stratification is more likely to increase the accuracy of the variance estimation and clustering is more likely to decrease accuracy (U.S. Department of Education, 1996, p. 100). The ELS: 2002 provides a design effect in order to reflect these various factors stemming from complex sampling design.

The design effect is defined as the ratio of the variance, where the variance of complex design is divided by the variance obtained from simple random sampling assumption. The t statistic from a complex sampling is equivalent to the t statistics from simple random sampling (SRS) divided by the square root of the design effect (U.S. Department of Education, 1996, p. 100).

Logistic Regression Analysis

Logistic regression analyses were performed to examine how the selected independent variables predict each of three dimensions of the Asian American parental involvement: parent positive school contact, parent school contact for problems, and parent participation in school functions. The criterion for parent positive school contact and parent school contact for problem dimensions consisted of two binary responses: did not contact school at all or contacted school. The criterion

for parent participation in school functions dimension included two binary responses: did not participate or participated in school functions.

Logistic regression is considered as the most appropriate analysis for estimating the linear relationship between two or more predictor variables and a dichotomous criterion variable (Cohen & Cohen, 1983). Independent variables include parent's social capital, parent's length of residence in the United States, parent's English proficiency, and parent's social class. Each of three dimensions of Asian American parental involvement was separately regressed on control and independent variables. Control variables were entered first in all logistic regression models. All independent variables were subsequently entered in a single block.

Logistic Regression coefficients and odds ratio (OR) assessed the probability that parents are engaged into positive school contact, school contact for problems, and participation in school functions. Wald chi-square statistics were used to test whether an individual predictor contributes statistically significantly to the variance of the criterion variable. Design effect was applied when calculating confidence intervals in order to properly account for the complex sample design of the ELS: 2002 survey. The significance of the regression coefficients was estimated with the confidence intervals based on both simple random sampling and complex sampling assumptions.

Summary

This chapter outlined research methodology of the current study. The source of data and study variables were summarized. The analytical sample included 597 Asian American immigrant biological mothers of tenth-grade students from the Educational Longitudinal Study of 2002. This chapter also introduced the procedures

for missing data treatment and application of weights and design effect. Finally, plans for data analysis were presented.

CHAPTER 4

RESULTS

The present chapter consists of four sections, including results of factor analysis on parental involvement, descriptive analysis, multiple regression, and logistic regression.

Demographic Characteristics of the Sample

The current study sample consisted of nationally representative 597 Asian American immigrant biological mother of tenth graders from the Educational Longitudinal Study of 2002 (ELS:2002). The sample was composed of six ethnic/cultural subgroups. 107 mothers (18%) of the sample had the Chinese origin, 130 (21.7%) mothers had Filipino origin, 12 (2%) mothers had Japanese origin, 49 (8.2%) mothers had Korean origin, 96 (16.1%) mothers had Southeast Asian origin, and 76 (12.7%) mothers had South Asian origin. 127(21.3%) mothers did not report their ethnic/cultural origins. Approximately 82% of the mothers were married. As to mother's highest level of education, 45% of mothers received Bachelor's or higher degrees, whereas almost 38% of mothers did not receive even post-secondary education. Information about mother's occupational status indicated that almost 82% of mothers had jobs. Only 17.6% of mothers were not employed; 16.6 % mothers had no job for pay and 1% of mothers were homemakers. Approximately 33.2% mothers reported their total annual family income was less than \$25,000. 23.8% of mothers reported between \$25,000 and \$50,000, 18.9% reported between \$50,001 and \$75,000, and 24.1% reported more than \$75,001. The summary of demographic characteristics of the sample can be found in Table 4.

Table 4

*Demographic Characteristics of Asian American Immigrant Biological Mothers**(N=597)*

Characteristics	n	%
Mother's occupation status		
No job for pay	99	16.6
Clerical	57	9.6
Craftperson	14	2.4
Farmer,	1	.2
Homemaker	6	1.0
Laborer	16	2.6
Manger, administrator	56	9.4
Operative	29	4.8
Professional	141	23.5
Proprietor, owner	21	3.5
Protective service	3	.5
Sales	13	2.1
School teacher	8	1.4
Service	100	16.8
Technical	33	5.6
Mother's highest level of education		
Did not finish high school	131	22
High school or GED	93	15.5
Attended 2-year school, no degree	42	7.1
Graduated 2-year school with degree	31	5.1
Attended college, no 4-year degree	31	5.3
Bachelor's degree	207	34.6
Master's degree	44	7.4
Ph.D., M.D., and other advanced degree	18	3.0
Total family income		
\$25,000 or less	198	33.2
\$25,001 to \$50,000	142	23.8
\$50,001 to 75,000	113	18.9
\$75,001 to 10,000	65	10.8
More than \$ 10,001	79	13.3

(Table 4 continued)

Characteristics	n	%
Parent's Asian ethnic/cultural subgroups		
Chinese	107	18.0
Filipino	130	21.7
Japanese	12	2.0
Korean	49	8.2
Southeast Asian	96	16.1
South Asian	76	12.7
Unspecified	127	21.3
Current marital status		
Married	489	81.8
Living in marriage-like relationship	12	2.0
Widowed	23	3.8
Separated	22	3.7
Divorced	39	6.6
Never married	13	2.1
School urbanicity		
Urban	259	43.4
Suburban	310	51.9
Rural	28	4.7
School type		
Public	554	92.8
Catholic	26	4.3
Other private	17	2.8

Dimensions of Asian American Parental Involvement

Principal Components Analysis

Preliminary principal components analysis was conducted to explore the underlying dimensions of Asian American parental involvement. A total of 20 items were initially analyzed, using principal-components analysis with varimax rotation. The initial analysis yielded four factors: (a) parent positive school contact, (b) parent school contact for problems, (c) parent engagement in social activities with her child, and (d) parent helping/monitoring. The number of factors was determined by three criteria: (a) Kaiser's criterion of eigenvalue greater 1.0, (b) examination of the scree-plot, and c) conceptual meaningfulness of factors. Items that had cross-loadings greater than .40 or had similar factor loadings between .4 and .5 on more than one factor were deleted. In addition, reliability of each factor was tested by calculating Cronbach's alpha coefficients. Items were excluded if Cronbach's alpha coefficient for the scale increases when the specific item was deleted. The overall reliability of each scale as well as item-total correlations was examined. None of the analyzed items had item-total correlations below .30.

A total of five items were deleted from the initial factor analysis. Three items: "How many times the parent contacted the school about providing information on how to help her tenth grader at home with specific skills or homework (BYP 53I)," "How frequently the parent worked on homework on school projects with her tenth grader over the past year (BYP 57B)," and "How frequently the parent attended family social functions with her tenth grader (BYP 57F)," were excluded because they had cross-loadings between .4 and .5. In addition, the item: "How many times

the parent contacted school for participating in school fund-raising activities or doing volunteering work (BYP 53H),” was excluded since the overall alpha coefficient for the scale increased from .75 to .78 when the item was deleted. Finally, the item: “How many times the parent contacted school about providing information for school records such as her address or work phone number (BYP 53J),” was excluded from the parent positive school contact factor, due to the lack of conceptual meaningfulness.

The remaining 15 items were re-factor analyzed, using principal components method with varimax rotation. The Kaiser-Meyer-Olkin (KMO) value of .77 indicated that the selected 15 items have an adequate pattern of correlations for factor analysis. Bartlett’s test of sphericity $\chi^2 (105) = 2724.690$, $p < .001$, verified that correlations between 15 items were adequately large for principal components analysis (Field, 2009). Three criteria of Kaiser’s criterion of eigenvalue greater 1.0, scree-plot test, and conceptual meaningfulness of factors, confirmed the same factor structures. The final analysis yielded four factors: (a) parent participation in social activities with her child, (b) parent positive school contact, (c) parent monitoring, and (d) parent school contact for problems. The four factors collectively explained 60.91% of the variance in Asian American parental involvement. The factor loadings ranged from .61 to .85.

The parent participation in social activities with her child and the parent positive school contact factor accounted for 16.2% and 16.0 % of the variance in the 15 items respectively. The parent monitoring factor and the parent school contact for problems factor explained 14.5 % and 14.2% of the variance in the 15 items

respectively. Below is the summary of principal-components analysis results for Asian American Parental Involvement, with information about factor loadings, eigenvalue, and percentage of variance explained by each factor (See Table 5).

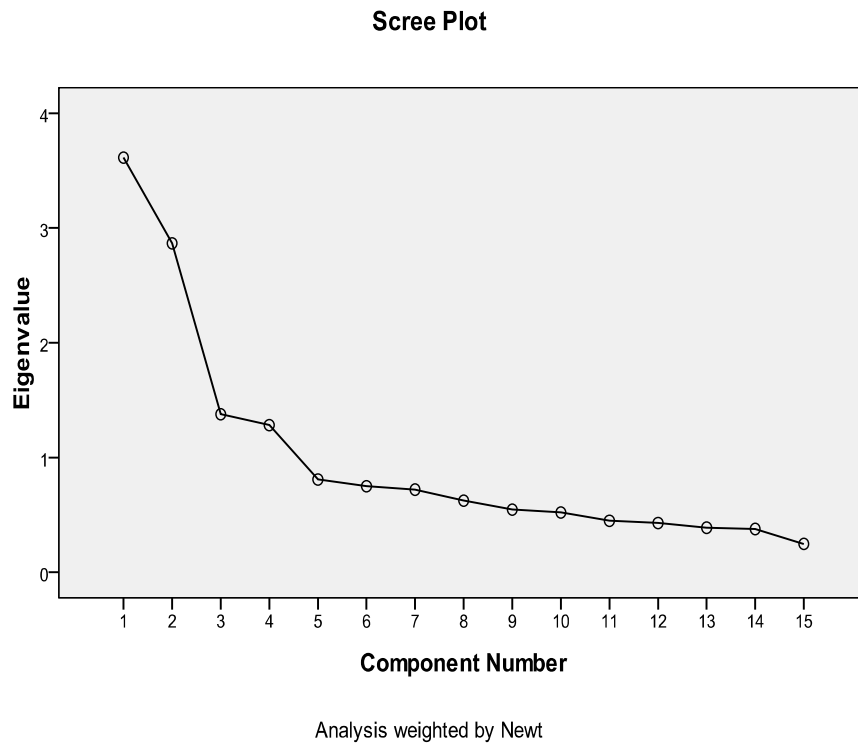
Table 5

Summary of Principal-Components Analysis Results for Asian American Parental Involvement (N=597)

Item Number	Components			
	1	2	3	4
57D	.808	.068	.118	.025
57A	.792	.094	.125	-.019
57C	.787	.011	.210	-.007
57E	.612	-.039	.263	.056
53C	1.06	.845	.028	.109
53D	-.069	.791	.033	-.056
53G	.007	.712	-.002	.322
53B	.161	.662	.048	.426
55B	.155	.059	.806	.083
55A	.219	-.015	.689	.127
55D	.174	-.077	.680	-.137
55C	.118	.117	.661	-.022
53A	.017	.161	.058	.834
53E	-.030	.034	-.020	.769
53F	.042	.223	3.069E-5	.703
α	.77	.78	.67	.70
eigenvalue	2.435	2.402	2.175	2.128
% of Variance	16.233	16.012	14.498	14.189

The number of factors to be retained was additionally examined with a scree test. Figure 1 is the scree plot for principal components analysis in the current study. The scree plot shows that four factors can be retained according to the Kaiser criterion of eigenvalues greater than 1. The scree plot also indicates that the curve on the line drops after four factors are extracted.

Figure 1 Scree Plot for the Principal Component Factor Analysis of Asian American Parental Involvement



The last dimension, parent participation at school functions was constructed by summing up four binary questions pertaining to parent's taking part in parent-teacher organizations and volunteering. As discussed earlier, these four items were excluded from principal-components factor analysis because of their dichotomous responses (yes or no). The table 6 contains information about the list of four factor-based scales with items that loaded on each factor, as well as, the summated subscale with four binary items.

Table 6 *List of Dimensions of Asian American Parental Involvement with Subscale Items*

Dimensions	No	Item
1		
Parent Engagement in Social Activities with Her Child	57D	How frequently did you attend sporting events outside of school with your tenth grader?
	57A	How frequently did you attend school activities with your tenth grader?
	57C	How frequently did you attend concerts with your tenth grader?
	57E	How frequently did you attend religious services with your tenth grader?
2		
Parent Positive School Contact	53C	How many times have you contacted school for your tenth grader's post high school plans?
	53D	How many times have you contacted school for your tenth grader's course selection for entry into post-secondary schools?
	53G	How many times have you contacted school for your tenth grader's positive behavior in school?
	53B	How many times have you contacted school for your tenth grader's school program for this year?
3		
Parent Monitoring	55B	How often do you discuss your tenth grader's report card with him or her?
	55A	How often do you check your tenth grader's homework completion?
	55D	How often do you make and enforce curfews on school nights?
	55C	How often do you know where your tenth grader is when he or she is not at home or school?
4		
Parent School Contact for Problems	53A	How many times have you contacted school for your tenth grader's poor performance in school?
	53E	How many times have you contacted school for your tenth grader's poor attendance record at school?
	53F	How many times have you contacted school for your tenth grader's problem behavior in school?
5		
Parent Participation at School Functions	54A	Do you belong to parent-teacher organization?
	54B	Do you attend meetings of the parent teacher organization?
	54C	Do you take part in activities of parent-teacher organization
	54D	Do you act as volunteer at school?

Reliability Analyses

Chronbach's alpha coefficients were computed to examine the internal consistency of each subscale. The alpha for the parent engagement in social activities with her child factor-based scale was .77. The alpha for the parent positive school contact factor-based scale was .78. The alpha for the parent monitoring scale was .67 and the alpha for the parent school contact for problem scale was .70 (See Table 5). The alpha for the parent participation at school function summated subscale was .76. Overall, all the Asian American parental involvement subscales, except the parent monitoring factor-based scale, showed relatively high reliability (Cronbach's alpha > .70). The parent monitoring factor-based scale has alpha that is slightly below the generally recommended standard of .70.

The extent to which five subscales are correlated was examined. As shown in Table 7, the correlations were small to moderate. The mean absolute value of the inter-correlations among five subscales ranged from .04 to .54. The correlation between parent engagement in social activities with her child scale and parent participation at school function scale corrected for unreliability was approximately .74. It is possible that the two scales are partially overlapping.

Table 7

Correlations among Subscales

Subscales	1	2	3	4	5
1 Parent Engagement in Social Activities with Her Child	-				
2 Parent Positive School Contact	.12	-			
3 Parent Monitoring	.44	.10	-		
4 Parent School Contact for Problems	.04	.40	.06	-	
5 Parent Participation in School Functions	.54	.24	.32	.14	-

Descriptive Statistics

Descriptive Information of Study Measures

Asian American immigrant mothers' mean scores and standard deviations on study measures are presented in Table 8. Mothers' scores on the parent's social capital scale ranged from -4.43 to 7.01, with $M=0$, $SD=2.12$. On the English proficiency scale, mothers' scores ranged from 0 to 16, with $M=9.24$, $SD=3.95$. This indicates that the average Asian American immigrant mothers in the sample reported moderately high levels of self-perceived English proficiency in understanding, listening, reading, and writing. The number of years Asian American immigrant mothers lived in the United States ranged from 0 to 47, with $M=17.16$, $SD=7.41$. This suggests that average Asian American immigrant mothers in the present study immigrated to the United States about 17 years ago. Mothers' socio-economic status composite score ranged from -2.11 to 1.80, with $M=.02$, $SD=.89$.

On the parent-child engagement in social activity subscale, mothers' scores ranged from 1 to 4, with $M=2.41$, $SD=.78$. This indicates that average Asian American immigrant mothers in this study participate in the social activities with her tenth grader from rarely to sometimes. Mothers' scores on parent positive school contact subscale ranged from 0 to 1, with $M=.49$. This suggests that approximately half of Asian American immigrant mothers in the current study practiced positive school contact at least one time. Mothers' scores on parent monitoring ranged from 1 to 4, with $M=3.32$, $SD=.58$. The average Asian American immigrant mothers in this study practiced monitoring usually. Mothers' scores on parent school contact for problems subscale ranged from 0 to 1, with $M=.43$. This indicates that about 43% of

Asian American immigrant mothers in the present study contacted school at least once for her tenth grader's academic or behavioral problems in schools. Mothers' scores on parent participation at school function subscale ranged from 0 to 1, with $M=.65$. Around 65% of Asian American immigrant mothers in the present study took part in school functions.

Table 8

Descriptive Information of Study Measures (n=597)

Measure	Mean	SD	Range	%
Parent's social capital	0	2.12	-4.43~7.01	-
Parent's English proficiency	9.24	3.95	0~16	-
Parent's length of residence in U.S.	17.16	7.42	0~47	-
Parent's social class	0.21	.89	-2.11~1.80	-
Tenth grader's academic achievement	52.77	9.65	25.52~79.02	-
School Urbanicity	-	-	0-1	46
Parent engagement with social activities with her child	2.41	.78	1~4	-
Parent positive school contact	-	-	0-1	49
Parent monitoring	3.32	.58	1~4	-
Parent school contact for problems	-	-	0-1	43
Parent participation at school functions	-	-	0-1	65

Descriptive Data on Study Measures across Ethnic/cultural Subgroups

Table 9 shows Asian American immigrant mothers' mean scores and standard deviations on study measures by ethnic/cultural subgroups. Statistical analysis was not feasible to examine within-group differences due to the small sample size for several Asian American immigrant mothers' ethnic/cultural subgroups (e.g., Japanese (n=12) and Korean (n=49)). Only descriptive comparisons made on key variables in the current study.

On the social capital measure, all other ethnic/cultural groups were not significantly different from one another except the Japanese subgroup. Southeast Asian Immigrant mothers ($M=-.22$ $SD=2.04$) showed the lowest levels of social capital among all the subgroups. Immigrant mothers of Filipino ($M=11.92$, $SD=2.36$) and Japanese ($M=11.46$, $SD=3.82$) subgroups, on average, reported significantly higher levels of English proficiency, compared to their Chinese ($M=8.04$, $SD=4.02$) and Southeast Asian ($M=6.84$, $SD=4.43$) counterparts. Southeast Asian immigrant mothers' socioeconomic status ($M=-.46$ $SD=.89$) was significantly lower than those of the other groups, while Japanese mothers had the highest socioeconomic status ($M=.74$, $SD=.43$) among all the subgroups. In addition, Southeast Asian tenth graders demonstrated the lowest level of academic achievement ($M=49.09$, $SD=8.19$) among all the subgroups, which was followed by the Filipino group ($M=52.39$, $SD=6.70$).

As to parental involvement measures, Korean ($M=2.83$, $SD=.70$) immigrant mothers, on average, practiced parent-child engagement in social activities most frequently among all the subgroups, while Southeast Asian immigrant mothers

Table 9

Means and Standard Deviations of Study Measures for Ethnic/Cultural Subgroups (N=470)

	<u>Chinese</u>		<u>Filipino</u>		<u>Japanese</u>		<u>Korean</u>		<u>Southeast Asian</u>		<u>South Asian</u>	
	(n= 107)		(n= 130)		(n= 12)		(n=49)		(n=96)		(n=76)	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Parent's social capital	.03	2.19	-.03	2.34	2.00	3.31	.79	2.30	-.22	2.04	.38	2.17
Parent's English proficiency	8.04	4.02	11.92	2.36	11.46	3.82	8.86	3.78	6.84	4.43	10.59	3.72
Parent's length of residence in U.S.	17.37	9.06	18.32	8.23	23.77	14.25	15.46	8.76	17.57	5.75	16.42	7.32
Parent's social class	.21	.90	.36	.62	.74	.43	.44	.83	-.46	.89	.18	.79
Tenth grader's academic achievement	58.90	10.11	52.39	6.70	57.70	9.64	58.02	7.61	49.09	8.19	54.11	8.78
School urbanicity	.41	-	.53	-	.35	-	.13	-	.56	-	.50	-
Parent-child social activity engagement	2.18	.84	.65	.79	2.54	.76	2.83	.70	2.19	.91	2.67	.66
Parent positive school contact	.45	-	.34	-	.62	-	.39	-	.24	-	.44	-
Parent monitoring	3.03	.64	3.57	.55	3.43	.60	3.28	.54	3.25	.65	3.56	.55
Parent school contact for problems	.21	-	.30	-	.43	-	.15	-	.39	-	.31	-
Parent participation in school functions	.59	-	.59	-	.76	-	.54	-	.47	-	.64	-

($M=2.19$, $SD=.91$), on average, used this strategy least frequently. Chinese immigrant mothers ($M=3.03$, $SD=.64$), on average, were found to practice monitoring least frequently among all the subgroups. In contrast, immigrant mothers of Filipino ($M=3.57$, $SD=.55$) and South Asian ($M=3.56$, $SD=.55$) subgroups, on average, used monitoring more frequently than the other groups. The Southeast Asian group had the lowest percentage of immigrant mothers who practiced positive school contact ($M=.24$) and participation at school functions ($M=.47$) among all the subgroups. The Korean group ($M=.15$) had the lowest percentage of immigrant mothers who contacted school for their tenth grader's problems.

Relationship between Parent's Social and Cultural Backgrounds and

Asian American Parental Involvement

Bivariate Analysis

The correlations among all study variables are presented in table 10. The correlation among variables was low to moderate, ranging from .01 to .51.

Independent variables were correlated significantly, falling between .20 and .46. However, multicollinearity was not a concern because the correlations were much below the suggested cut-off value of .70 (Tabachnick & Fidell, 2001).

Table 10

Bivariate Relationships between Variables (N=597)

Variables	1	2	3	4	5	6	7	8	9	10	11
Independent Variables											
1. Parent's social Capital	-										
2. Parent's English proficiency	.29**	-									
3. Parent's length of residence in U.S.	.22**	.34**	-								
4. Parent's social class	.36**	.46**	.20**	-							
Control Variables											
5. Tenth grader's academic achievement	.21**	.17**	.24**	.51**	-						
6. School urbanicity (Urban)	-.08	-.11**	-.05	-.24**	-.16**	-					
Dependent Variables											
7. Parent's engagement with social activities with her child	.42**	.40*	.22**	.48**	.28**	-.06	-				
8. Parent's positive school contact	.13**	.06	-.05	.03	-.11*	-.07	-.01	-			
9. Parent's monitoring	.26**	.31**	.15**	.23**	-.02	.08*	.44**	.05	-		
10. Parent's school contact for problems	.01	-.04	-.03	-.16**	-.24**	.08	.03	.47**	.03	-	
11. Parent's participation at School functions	.22**	.10**	.06	.13**	.05	.06	.34**	.27**	.22**	.29**	-

* $p < .05$. ** $p < .01$

Multiple Regression Analyses

The main purpose of the current study was to examine the relation between parent's social and cultural backgrounds and Asian American immigrant mothers' involvement. Multiple linear regression analyses were conducted to assess whether the predictors significantly contribute to mother's engagement in social activities with her child and parent monitoring respectively.

The significance was estimated in two ways: (a) by assuming simple random sampling and (b) by considering the complex sample design effect (DEFF). The usual manual of Educational Longitudinal Study of 2002 provides information about design effect for estimate variance error (U.S. Department of Education, NCES, 2004). The mean parent-level mean design effect (DEFF) was approximately 2.25. This value was taken as reasonable estimate for DEFF for assessing standard errors for correlation regression coefficients in the current research. Accordingly, a design effect was applied to compute appropriate t statistics and standard errors of each analysis. The following are the equations used to adjust design effect:

$$\text{DEFF (2.25)} = \frac{\text{Variance}_{\text{cx}}}{\text{Variance}_{\text{srs}}} \quad (2)$$

$$t \text{ statistic}_{\text{cx}} = \frac{t \text{ statistic}_{\text{srs}}}{\sqrt{\text{DEFF}}} \quad (3)$$

Multiple Regression Analysis 1: Parent engagement in social activities with her child

Table 11 shows the results of a linear regression model examining the effects of parent's social capital, English proficiency, length of residence in U.S., and social class on Asian American immigrant parent's engagement in social activities with her tenth-grade child. The result is based on both the simple random sampling and complex sampling assumptions. Values in parentheses are design-effect-based standard errors and *t* statistics.

In the initial model, tenth-grader's current academic achievement and school urbanicity explained 7.7% of the variance in parent monitoring ($R^2 = .077$, $F(2, 594) = 24.913$, $p < .001$). Adding parent's social and cultural background variables, the full model significantly improved the prediction of the dependent variable, compared to the initial model ($\Delta R^2 = .256$, $F(6, 590) = 49.159$, $p < .001$). Parent's social and cultural background variables accounted for approximately 26% of the variance in parent engagement in social activities with her tenth grader above and beyond the effects of tenth grader's current academic achievement and school urbanicity.

The result indicates that parent's social capital ($\beta = .25$, $t = 6.816$, $p < .001$), parent's English proficiency ($\beta = .19$, $t = 4.62$, $p < .001$), parent's social class ($\beta = .29$, $t = 6.29$, $p < .001$), significantly contributed to the explanation of the variance in parent engagement into social activities with her child, controlling for all other predictors. Tenth grader's current academic achievement was found to be significant in the initial model. When the other independent variables were added in the second step, it became non-significant and trivial in size.

Table 11

Multiple Regression Analysis Results for Predicting Parent's Engagement in Social Activities with Her Child (N=597)

Variable	<i>B</i>	SE <i>B</i>	β	<i>t</i>
Step 1				
Tenth grader's academic achievement	.022	.003 (.005)	.276*** ^a	6.91 (4.607)
School urbanicity (Urban)	-.020	.062 (.093)	-.013	-.323 (-.215)
Step 2				
Tenth grader's academic achievement	.004	.003 (.005)	.047	1.159 (.773)
School urbanicity (Urban)	.096	.054 (.081)	.062	1.779 (1.186)
Parent's social capital	.092	.013 (.020)	.250*** ^a	6.816 (4.544)
Parent's English Proficiency	.036	.008 (.012)	.185*** ^a	4.621 (3.081)
Parent's length of residence in U.S.	.004	.004 (.006)	.043	1.158 (0.772)
Parent's social class	.247	.039 (.059)	.285*** ^a	6.291 (4.194)

Note. $R^2 = .077$ for step 1. $R^2 = .333$, $\Delta R^2 = .256$ for step 2.

Values in parentheses show estimated standard errors and *t* coefficients corrected for approximate design effect.

^a indicates design-effect based significance

* $p < .05$. ** $p < .01$. *** $p < .001$.

The significance of the regression coefficients was also estimated, using design effect-based standard errors and t statistics in order to consider the influences of complex sampling on standard errors. Consistent with the simple random sampling-based results, parent's social capital ($\beta = .25, t=4.54, p < .001$), parent's English proficiency ($\beta = .19, t=3.08, p < .001$), parent's social class ($\beta = .29, t= 4.19, p < .001$), significantly contributed to the explanation of the parent's engagement in social activities with her child controlling for all other predictors.

The results also suggest that Asian American immigrant mothers with greater social capital were more likely to become engaged into social activities with her tenth grader than mothers with less social capital measured by parent's membership in organizations and exchanging of supports and information with other parents, as well as parent's knowledge about tenth grader's friend and their parents. Asian American immigrant mothers who perceived that they possess higher levels of English proficiency in understanding, speaking, reading, and writing participate more in social activities with her tenth-grade child than mothers with lower levels of English proficiency. Asian American immigrant mothers of higher social class status measured by parents' educational levels, occupations, and family income, showed more frequent engagement in social activities with their tenth graders. The number of years Asian American immigrant mother lived in the United States did not statistically significantly predict the probability of her becoming engaged into social activities with her tenth grader.

Multiple Regression Analysis 2: Parent monitoring

Table 12 presents the results of a linear regression model estimating the effects of parent's social capital, English proficiency, length of residence in U.S., and social class on Asian American immigrant parent's monitoring her tenth grader's daily activities and school work. The result is based on both the random sampling and complex sampling assumptions. Values in parentheses are design-effect-based standard errors and *t* statistics.

In the initial model, tenth grader's current academic achievement and school urbanicity explained only 1% of the variance in parent monitoring ($R^2 = .007$, $F(2, 594) = 2.022$, $p = .133$). The initial model was not statistically significant. Adding parent's social and cultural background variables, the full model significantly improved the prediction of the dependent variable, compared to the initial model ($\Delta R^2 = .168$, $F(6, 590) = 20.884$, $p < .001$). Parent's social and cultural background variables collectively accounted for approximately 17% of the variance in parent monitoring above and beyond the effects of tenth grader's current academic achievement and school urbanicity.

The results reveal that parent's social capital ($\beta = .17$, $t = 4.17$, $p < .001$), parent's English proficiency ($\beta = .19$, $t = 4.36$, $p < .001$), and parent's social class ($\beta = .20$, $t = 3.96$, $p < .001$) significantly contributed to the explanation of the parent's monitoring her tenth grader, controlling for all other predictors in the full model.

Table 12

Multiple Regression Analysis Results for Predicting Parent's Monitoring (N=597)

Variable	<i>B</i>	<i>SE B</i>	β	<i>t</i>
Step 1				
Tenth grader's academic achievement	.000	.002 (.003)	-.003	-.077 (-.051)
School urbanicity (Urban)	.094	.048 (.072)	.082	1.971 (1.314)
Step 2				
Tenth grader's academic achievement	-.011	.003 (.005)	-.181** ^a	-4.042 (-2.695)
School urbanicity (Urban)	.162	.045 (.068)	.140* ^a	3.625 (2.417)
Parent's social capital	.046	.011 (.017)	.170** ^a	4.171 (2.781)
Parent's English proficiency	.028	.006 (.009)	.194** ^a	4.359 (2.906)
Parent's length of residence in U.S.	.005	.003 (.005)	.063	1.547 (1.031)
Parent's social class	.129	.033 (.050)	.200** ^a	3.963 (2.642)

Note. $R^2 = .007$ for step 1. $R^2 = .175$, $\Delta R^2 = .168$ for step 2.

Values in parentheses show estimated standard errors and *t* coefficients corrected for approximate design effect.

^a indicates design-effect based significance

* $p < .05$. ** $p < .01$. *** $p < .001$.

In addition, both tenth grader's current academic achievement ($\beta = -.18, t = -4.04, p < .001$), and school urbanicity ($\beta = .14, t = 3.63, p < .001$) were found to be significant predictors of parent's monitoring, controlling for all other predictors in the model. In particular, child's current academic achievement was negatively associated with parent monitoring. Thus, Asian American immigrant mothers whose tenth-grade child obtained lower scores on reading and math were more likely to monitor her child. Asian American immigrant mothers whose children were enrolled in schools in urban area practice monitoring of their tenth graders daily activities and school work more frequently than mothers in suburban or rural areas.

The significance of the regression coefficients was also estimated, using design-effect-based standard errors and t statistics in order to consider the influences of complex sampling. Consistent with the simple random sampling-based results, parent's social capital ($\beta = .17, t = 2.78, p < .01$), parent's English proficiency ($\beta = .19, t = 2.91, p < .01$), parent's social class ($\beta = .20, t = 2.64, p < .01$), significantly contributed to the explanation of the parent's monitoring her tenth grader, controlling for all other predictors. Also, tenth grader's academic achievement ($\beta = -.18, t = -2.69, p < .01$) and school urbanicity ($\beta = .14, t = 2.42, p < .05$) were significant predictors of parent's monitoring controlling for all other predictors in the model.

The result suggested that Asian American immigrant mothers with greater social capital were more likely to monitor their tenth grader's daily activities and school work than mothers with less social capital. Asian American immigrant mothers who perceived that they have higher levels of English proficiency in understanding, speaking, reading, and writing became more involved in monitoring

practice than mothers with lower levels of English proficiency. Asian American immigrant mothers of higher social class status measured by parents' educational levels, occupations, and family income, would practice parent monitoring more frequently. Parent's length of residence in U.S. was not a significant predictor of parental monitoring. The number of years that Asian American immigrant mother lived in the United States did not statistically significantly predict monitoring practices.

Logistic Regression Analyses

A series of logistic regression analyses were performed to estimate how the parent social and cultural background variables predict parent positive school contact, parent school contact for problems, and parent participation at school functions respectively.

The Wald statistic, an analogue of t statistic in linear regression, was examined to determine whether the b coefficient for the specific predictor differs significantly from zero (Hair et al., 2006; Field, 2009). The value of odds is defined as the probability of the event occurring divided by the probability of the event not occurring (Hair et al., 2006). An odds ratio greater than 1 associated with the predictors in logistic regression indicates that there is positive relationship between the specific predictor and the probability of an event occurring. In contrast, odds ratio less than 1 indicates a negative relationship between the particular predictor and the likelihood of the event occurring.

The value of -2Log Likelihood was used to assess overall model fit. In general, smaller values of -2LL suggest better model fit (Hair et al., 2006). Changes in model chi-square were examined to estimate whether the set of added variables statistically significantly predict the odds of dependent variable better.

Consistent with the prior multiple regression analyses, the significance was estimated in two ways (a) by assuming simple random sampling and (b) by considering the complex sample design effect. The parent-level mean design effect (DEFF=2.25) was applied to compute appropriate t statistics and standard errors in every analysis. The following are the equations used to adjust design effect:

$$\text{DEFF (2.25)} = \frac{\text{Variance}_{\text{cx}}}{\text{Variance}_{\text{srs}}} \quad (4)$$

$$t \text{ statistic}_{\text{cx}} = \frac{t \text{ statistic}_{\text{srs}}}{\sqrt{\text{DEFF}}} \quad (5)$$

$$\begin{aligned} &95\% \text{ confidence level lower bound} \quad (6) \\ &= \text{Exp} (b - (1.96 \times \text{SE}_{\text{cx}})) \end{aligned}$$

$$\begin{aligned} &95\% \text{ confidence level upper bound} \quad (7) \\ &= \text{Exp} (b + (1.96 \times \text{SE}_{\text{cx}})) \end{aligned}$$

Logistic Regression Analysis 1: Parent positive school contact

Table 13 presents the results of a logistic regression model estimating the effects of parent's social capital, English proficiency, length of residence in U.S., and social class on the probability of Asian American immigrant mothers' positive school contact.

The standard errors are based on both the random sampling and complex sampling assumptions. Values in parentheses are design-effect-based standard errors and t statistics as well as the 95% confidence interval for the odds ratio.

Only parent's social capital variable among the primary predictors significantly influenced the odds of parent's positive school contact, controlling for all other predictors ($b = .15$, $OR = 1.16$, $p < .001$). One unit increase in parent's social capital increased the odds of parent's positive school contact by approximately 16%. The tenth grader's current academic achievement was a significant predictor, yet had a weak and negative association with the odds of parent's positive school contact ($b = -.34$, $OR = .97$, $p < .01$). One unit decrease in tenth grader's standardized composite score on reading and math decreased the odds of parent's positive school contact by approximately 3%. The school urbanicity variable was found to be significant in the initial model but not significant in the full model, where parent social and cultural background variables were added.

Table 13

Logistic Regression Analysis Results for Predicting Parent's Positive School Contact

(N=597)

Variable	<i>B</i>	SE <i>B</i>	Wald	95% Confidence Level Odds Ratio		
				Odds Ratio	Lower	Upper
Step 1						
Tenth Grader's Academic Achievement	-.025	.009 (.014)	8.190	.975	.958 (.950)	.992 (1.001)
School Urbanicity (Urban)	-.367	.169 (.254)	4.723	.693	.498 (.422)	.965 (1.139)
Step 2						
Tenth Grader's Academic Achievement	-.034** ^a	.011 (.017)	9.996	.967	.947 (.936)	.987 (.998)
School Urbanicity (Urban)	-.324	.174 (.261)	3.468	.723	.514 (.434)	1.017 (1.206)
Parent's Social Capital	.150*** ^a	.045 (.068)	11.281	1.162	1.065 (1.018)	1.268 (1.326)
Parent's English Proficiency	.025	.025 (.038)	.974	1.025	.976 (.953)	1.078 (1.104)
Parent's Length of Residence in U.S.	-.021	.013 (.020)	2.908	.979	.955 (.942)	1.003 (1.017)
Parent's Social Class	.065	.127 (.191)	.260	1.067	.831 (.735)	1.370 (1.550)

Note. Values in parentheses show estimated standard errors and *t* coefficients corrected for approximate design effect.

^a indicates design-effect based significance

p*<.05. *p*<.01. *** *p*<.001.

Logistic Regression Analysis 2: Parent school contact for problems

Table 14 presents the results of a logistic regression model estimating the effects of parent's social capital, English proficiency, length of residence in U.S., and social class on the probability of Asian American immigrant mothers' school contact for problems. The result is based on both the random sampling and complex sampling assumptions. Values in parentheses are design-effect-based standard errors and *t* statistics as well as 95% confidence interval for the odds ratio.

Of parent social and cultural background variables, none of the parent social and cultural background variables statistically significantly contributes to the likelihood of parent's school contact for problems, controlling for all other predictors. Tenth grader's current academic achievement was the only variable that statistically significantly predicts the odds of parent school contact for problems. In the full model, tenth grader's current academic achievement was negatively associated with the probability of parent's school contact for problems ($b = -.05$, $OR = .95$, $p < .001$). One unit decrease in the tenth grader's standardized composite score on reading and math decreased the odds of the parent's school contact for problems by approximately 5%.

Table 14

*Logistic Regression Analysis Results for Predicting Parent's School Contact for**Problems (N=597)*

Variable	B	SE B	Wald	95% Confidence Level Odds Ratio		
				Odds Ratio	Lower	Upper
Step 1						
Tenth Grader's Academic Achievement	-.052*** ^a	.009 (.014)	30.502	.949	.932 (.925)	.967 (.975)
School Urbanicity (Urban)	.168	.173 (.260)	.951	1.183	.844 (.711)	1.660 (1.967)
Step 2						
Tenth Grader's Academic Achievement	-.050*** ^a	.011 (.017)	20.745	.951	.931 (.921)	.972 (.982)
School Urbanicity (Urban)	.144	.176 (.264)	.669	1.155	.818 (.688)	1.631 (1.938)
Parent's Social Capital	.079	.044 (.066)	3.231	1.083	.993 (.951)	1.181 (1.232)
Parent's English Proficiency	.003	.026 (.039)	.015	1.003	.954 (.929)	1.055 (1.083)
Parent's Length of Residence in U.S.	.005	.013 (.020)	.131	1.005	.980 (.967)	1.030 (1.044)
Parent's Social Class	-.153	.128 (.192)	1.425	.858	.668 (.589)	1.103 (1.250)

Note. Values in parentheses show estimated standard errors and *t* coefficients corrected for approximate design effect.

^a indicates design-effect based significance

*p<.05. **p<.01. *** p<.001.

Logistic Regression Analysis 3: Parent participation at school functions

Table 15 presents the results of a logistic regression model estimating the effects of parent's social capital, English proficiency, length of residence in U.S., and social class on the probability of Asian American immigrant mothers' participation at school functions. The result is based on both the random sampling and complex sampling assumptions. Values in parentheses are design-effect-based standard errors and t statistics as well as 95% confidence level odds ratio.

Of the primary predictors, only parent's social capital variable significantly contributed to the likelihood of parent's participation at school functions, controlling for all other variables in the model ($b = .21$, $OR = 1.23$, $p < .001$). One unit increase in parent's social capital increased the odds of parent's participation at school functions by approximately 23%. The school urbanicity variable was found to be barely significant in the full model ($b = .40$, $OR = 1.49$, $p < .05$). And, with the application of design effect, it was no longer a significant predictor.

Table 15

*Logistic Regression Analysis Results for Predicting Parent's Participation at**School Functions (N=597)*

Variable	<i>B</i>	SE <i>B</i>	Wald	95% Confidence Level Odds Ratio		
				Odds Ratio	Lower	Upper
Step 1						
Tenth Grader's Academic Achievement	.012	.009 (.014)	1.755	1.012	.994 (.986)	1.030 (1.039)
School Urbanicity (Urban)	.269	.176 (.264)	2.348	1.309	.928 (.780)	1.848 (2.196)
Step 2						
Tenth Grader's Academic Achievement	-.008	.011 (.017)	.584	.992	.971 (.960)	1.013 (1.025)
School Urbanicity (Urban)	.401	.185 (.278)	4.693	1.493	1.039 (.867)	2.145 (2.573)
Parent's Social Capital	.209*** ^a	.049 (.074)	17.854	1.233	1.119 (1.067)	1.358 (1.423)
Parent's English Proficiency	.008	.027 (.041)	.093	1.008	.957 (.931)	1.063 (1.091)
Parent's Length of Residence in U.S.	.002	.013 (.020)	.036	1.002	.977 (.964)	1.028 (1.041)
Parent's Social Class	.243	.135 (.203)	3.218	1.275	.978 (.857)	1.663 (1.896)

Note. Values in parentheses show estimated standard errors and *t* coefficients

corrected for approximate design effect.

^a indicates design-effect based significance

p*<.05. *p*<.01. *** *p*<.001.

CHAPTER 5

DISCUSSION

This chapter will provide a summary of the current study's major findings. Key issues regarding the findings will be discussed in light of the study's objectives and previous research. Implications for future practice, research, and policy to promote Asian American parents' educational involvement will be discussed. Finally, the chapter will conclude with a description of the study's limitations.

Dimensions of Asian American Immigrant Parental Involvement

The current research findings suggest that multiple dimensions exist in Asian American immigrant mothers' educational involvement practices. The underlying structure confirms that Asian American immigrant parents are involved in their children's education across home, school and community settings. The first dimension, "parent's engagement in social activities with her child" encompasses the parent and child spending time together at various social events and religious services. This type of parental involvement is well reflected in the previous research. Studies suggest that Asian American immigrant families participate in community-based activities and religious services, which serve as a sanction for the traditional ethnic cultural values and norms that promote the academic achievement of Asian American children (Lew, 2006; Li, 2006; Zhou & Bankston, 1998). It is not uncommon that Asian American parents enroll their children in ethnic language schools in order to expose them to wide range of enrichment experiences and ethnic heritages (Diamond, Wang, & Gomez, 2006). In doing so, Asian American immigrant families draw resources necessary to their educational involvement from ethnic community (Lew,

2006; Li, 2006; Kim, Kim, & Kelly, 2006).

The second dimension, “parent’s positive school contact,” designated parent’s initiating communication with school regarding her tenth grader’s positive school performance, school programs for the year, and post-high school plans. Consistent with previous research, Asian American immigrant mothers in the current study were much less engaged in school contact than in other types of parental involvement (e.g., parental monitoring and parent-child engagement in social activities). This result is consistent with the prior research findings that indicate Asian American immigrant parents often seek important educational information and support outside of school rather than directly contacting or collaborating with schools (Diamond, Wang, & Gomez, 2006; Lew, 2007). An explanation for lower parent-school contact rates is a traditional Asian cultural belief about the home-school relation. The literature suggests that parents of Asian origins tend to consider home and school as separate educational sectors and view school personnel as authority figures, whose instructional and educational decisions may not be challenged (Hwa-Froelich & Westby, 2003; Sy, 2006).

The third dimension reflected parent’s monitoring of their children’s homework completion and academic progress, as well as setting up the rules regarding children’s after-school time. This result is consistent with the prior research findings, which suggest that Asian American parents teach their children behaviors conducive to academic success through continuous monitoring and structuring (Chao, 2000; Sy, 2007). The literature also points out that Asian American parents tend to consider monitoring as an important parental responsibility (Chao & Tseng, 2002; Kim & Wong, 2002). In particular, Asian American immigrant mothers in the present

study demonstrated the highest levels of engagement in monitoring practice among the five dimensions of parental involvement. This finding validates the results of previous studies, where parents from Asian cultures showed higher levels of home-supervision but lower levels of home-school communications and school participation (Chao, 2000; Ho & Williams, 1996; Muller, 1993; Sy, 2006; Wu, 2006).

The fourth dimension was parent's school contact for problems, particularly concerning her tenth grader's poor school performance and problem behaviors. The Asian American immigrant mothers reported the lowest levels of engagement in school contact for problems among the five dimensions of parental involvement. Of particular interest is that Asian American parents seem to communicate with schools for students' negative behaviors and poor school performance even less frequently than for students' positive behaviors and post-high school planning. This may be partly because of Asian Americans' tendency to associate help-seeking with lack of self-discipline and loss of face (Chan, 1998; Uba, 1994; Yagi & Oh, 1995; Yeh & Inose, 2002). For example, Lau and Takeuchi (2001) found that Chinese American parents who adhere to traditional Asian cultural values expressed greater shame with regard to their children's misbehaviors and, thus, showed more reluctance to seek professional services than their less traditional counterparts (Lau & Takeuchi).

The fifth dimension, parent's participation at school functions, designated parent's collaboration with schools by attending parent-teacher organizations and volunteering activities. Asian American immigrant mothers practiced this type of involvement more frequently than direct school contact, yet less frequently than monitoring and parent-child engagement in social activities. This finding provides

support for the previous study's results that Asian American immigrant parents are unfamiliar with the concept of school-family partnership and perceive their primary roles in children's school success are to schedule after-school time and to ensure homework completion (Hwa-Froelich & Westby, 2003).

Overall, there are conceptual overlaps between the current five types of Asian American immigrant mothers' educational involvement and previously identified dimensions. Home-based involvement, such as parent-child joint engagement in social activities and monitoring are consistent with Epstein's (1995, 1997, 2002) typologies of *parenting* and *learning at home*, where parents provide positive and nurturing home environments through parent-child interactions. Parent-child joint engagement in social activities and parent monitoring also share *cognitive* and *personal involvement* suggested by Grolnick and Slowiaczek (1994), in that parents convey knowledge and values to their children directly in order to promote educational success. Parent positive school contact and school contact for problem dimensions are consistent with the *home-school communication* dimension of Epstein's (1995, 1997, 2002) typologies. The last dimension, parent participation in school functions, embraces Epstein's (1995, 1997, 2002) *volunteering* dimension, as well as Grolnick and Slowiaczek (1994)'s *behavioral involvement*.

Relationships between Parent's Socio-cultural Backgrounds and

Asian American Immigrant Parental Involvement

The primary focus of the current study was to examine how parents' social and cultural contexts may shape educational involvement in Asian American immigrant mothers after accounting for the effects of students' academic achievement

and school urbanicity. The four parent's socio-cultural background variables had different impacts on Asian American immigrant mothers' parental involvement, depending on its type.

Parent's Social Capital

In this study, parent's social capital was measured by (a) parent's membership in organizations with other parents from their children's schools (b) parent's knowledge about their children's first close friends and their parents and (c) parent's exchanging of support and information with parents of their children's friends. Parent's social capital was positively related to all dimensions of Asian American immigrant mothers' educational involvement, except for parent's school contact for problems. This finding is consistent with the previous study's result that parents reporting more social interactions with other parents from their children's schools demonstrated higher levels of involvement both at home and in school (Sheldon, 2002).

This finding also supports evidence from prior qualitative research suggesting that Asian American immigrant parents often rely on co-ethnic social ties to gain access to important schooling information, as well as to overcome their cultural and linguistic barriers to their educational involvement (Diamond, Wang, & Gomez, 2006; Hwang, 2002; Kao, 2007; Lew, 2006; Sun, 1998). However, the inference should be made with caution, because the current study did not investigate the racial/ethnic composition of parent's social networks.

It should be noted that of parent's socio-cultural background variables, parent's social capital was the only significant predictor of Asian American

immigrant mothers' school-based involvement, including positive school contact and participation at school functions. It is possible that Asian American immigrant mothers' social ties with other parents facilitated their overall interactions with their children's schools as well. This finding is also consistent with previous research findings indicating that parents who maintained social networking with parents from their children's schools obtained more access to and exchanged more school-related information including school policies (Lareau & Shumar, 1996; Sheldon, 2002; Useem, 1992).

Parent's English Proficiency

The current study found that Asian American immigrant mothers' self-perceived English proficiency had a significantly positive relationship with parent-child joint participation in social activities. The literature suggests that when immigrant parents and their children have different language preferences, they are more likely to experience emotional distances and intergenerational conflicts (Buki & Ma, 2003; Tseng & Fuligni, 2000). It is known that children generally have greater opportunities to learn about English and dominant culture through school experiences than their immigrant parents (Buki & Ma, 2003 ; Ying, 1999). Given this, parents' higher English proficiency is likely to facilitate parent-child communications and understanding, and thus, to encourage children to seek parental advice more.

Parent's English proficiency was also positively related to monitoring practice in Asian American immigrant mothers. The result is consistent with the previous studies, which indicate that parents with higher levels of English proficiency are more likely to have confidence in supervising a child's homework and sharing school

experiences with children (Sy, 2006). This finding is also consistent with several qualitative studies indicating that Asian American immigrant mothers experience difficulties in discussing and assisting their secondary-school-age children's homework due to their lack of English proficiency (Lew, 2007; Li, 2007; Yang & Rettig, 2003)

Contrary to the previous research findings, parent's English proficiency did not predict Asian American immigrant mothers' school-based involvement. No relationship was found between a parent's English proficiency and a parent's positive school contact, school contact for problems, and participation at school functions. This was surprising, since many studies pinpoint that limited English was a major barrier to immigrant parents' school involvement (Siu, 1996; Turney & Kao, 2009).

In fact, the current study found that tenth graders' academic achievement played a significant role in predicting whether Asian American immigrant mothers initiate communications with schools. Tenth graders' composite scores on reading and math were significantly negatively related to both dimensions of the parent's school contact. In particular, parents' school contact for problems domain was mostly explained by the tenth graders' academic achievement. Parents' socio-cultural background variables, including English proficiency could no longer predict parents' school contact for problems significantly when controlling for tenth graders' academic achievement.

Parent's Length of Residence in the United States.

In the present study, mother's length of residence in the United States was considered as a proxy for her familiarity with the U.S. educational system. None of

the five dimensions of parental involvement was significantly related to the years Asian American immigrant mothers lived in the United States. This result was contrary to the previous finding of Turney and Kao (2009), where the length of parents' residence in the United States was positively related to Asian American immigrant parents' participation at their children's school (Turney & Kao). It seems that longer duration of residence in the United States does not ensure that Asian American immigrant mothers become better equipped to interact with schools. It is also possible that the length of residence in the United States variable failed to capture the extent to which Asian American immigrant mothers are familiar with the U.S. educational system. Further studies are needed to better understand changes in Asian American immigrant mothers' knowledge about the U.S. educational system and their educational beliefs over time.

Parent's Social Class

In the current study, parent's social class was measured by a composite construct of parents' levels of education, occupations, and family income. Parent's social class was significantly positively related to both parent-child joint engagement in social activities and parent's monitoring in Asian American immigrant mothers. Thus, Asian American immigrant mothers with greater financial resources, higher levels of education, and professional occupations are more likely to partake in enriching experiences with their children, and to supervise their tenth grader's schoolwork and daily schedule.

This finding is consistent with findings from comparative research on educational involvement between middle-class and working-class Asian American

immigrant parents. With greater financial resources, middle-class parents were able to compensate their cultural and linguistic barriers and to provide more educational opportunities and guidance than their working-class counterparts (Lew, 2007; Louie, 2001).

The current finding also confirms past research findings that Asian American immigrant and refugee parents with lower levels of education are less able to assist their children with schooling (Hill & Tylor, 2004). The finding further supports the prior research indicating that Asian American immigrant parents, who are self-employed in ethnic enclaves, had little time to provide their children home-supervision due to their extended work schedule (Sohn, 2007; Rhee, 2009).

Contrary to the prevalent argument, parent's social class did not significantly predict Asian American immigrant mothers' school-based involvement, including positive school contact, school contact for problems, and participation at school functions. Past research on White parent involvement suggests that middle-class parents more actively participate in school events and communicate with school personnel than their working-class counterparts (Hovart, Weninger & Lareau 2003). However, this was not the case of Asian American immigrant parents in the current study. This pattern may result from the cultural differences over the meaning of parental involvement. For example, many Korean and Chinese American immigrant mothers were educated in cultures, where obtaining high scores on tests is often considered as a sole indicator of one's educational success. These mothers, regardless of their social class, tend to view contacting and joining schools unnecessary unless their children are academically struggling (Hu, 2008).

Descriptive Data on Ethnic/cultural Subgroups

Descriptive statistics on study measures across six different ethnic/cultural subgroups revealed that Asian American immigrant mothers are a heterogeneous group, with variations in socio-cultural backgrounds. In particular, immigrant mothers of Southeast Asian origin, on average, reported the lowest levels of social capital, English proficiency, and socioeconomic status among all the subgroups.

The results also indicate that mothers of each ethnic/cultural subgroup varied in their engagement in different types of parental involvement. Southeast Asian immigrant mothers practiced parent-child participation at social activities, positive school contact, and participation at school functions least frequently among all the subgroups. Further, the percentage of mothers who contacted the school for problems was lowest in the Korean group. Chinese mothers practiced monitoring least frequently among all subgroups.

Practitioners and researchers need to consider even greater diversity in the actual Asian American parent population. The six sub-group classifications provided by the ELS: 2002 data are still limited without counting each parent's nationality, native language, immigration history, and religion.

Limitations

The current research has several limitations. First, this study only examines responses from biological mothers in Asian American immigrant parents. Other types of caregivers such as fathers, grandparents, and stepparents were excluded from the analyses. Accordingly, current study results should not be directly generalized to all Asian American immigrant parents. While mothers have been generally identified as

primary caretakers in Asian American families (Kim & Wong, 2002), fathers and grandparents play an increasingly important role in childrearing (Yoon, 2005; Hayashino & Chopra, 2009). Future research on Asian American parental involvement needs to be conducted, targeting caregivers other than mothers.

Second, the current study selected items based on the existing research studies and literature review to determine the underlying structure of Asian American immigrant parents' involvement. While the resulting parental involvement dimensions encompass traditional school-based and home-based involvement practices, it may not capture other unique strategies by which Asian American parents facilitate their child's educational success. For example, qualitative studies suggest that Asian American immigrant parents attempt to enhance their child's learning by providing private tutoring, reducing household chores, and creating additional homework (Chao & Tseng, 2002; Schneider & Lee, 1990; Siu, 1996; Sy, 2006). These practices were not reflected in current study.

Third, the use of secondary data limited construction of study measures required to answer the current research question. For example, parent's social capital scale was unable to measure racial and ethnic compositions of Asian American immigrant mothers' social ties. In addition, the length of residence in the United States measure could not provide detailed information about mother's familiarity with the U.S. educational system. Furthermore, Asian immigrant mothers' cultural beliefs about parenting and educational involvement were not appropriately measured due to unavailability of survey items. More culturally specific survey items would allow

current research to capture comprehensive dynamics between parents' socio-cultural backgrounds and Asian American immigrant parents' involvement.

Fourth, students' academic achievement can be considered both predictor and outcome of parental involvement. Literature indicates that reciprocal relationships exist between parental involvement and academic achievement (Chao & Tseng, 2002; Nguyen et al., 2009). The current study focused more on factors that may shape parent educational involvement strategies than on how parental involvement influenced students' educational outcomes. Longitudinal research design may enable the examination of reciprocal relations between parental involvement and students' educational outcome.

Fifth, statistical analysis was not feasible to examine within-group differences due to small sample size for several Asian American immigrant mothers' ethnic subgroups (e.g., Japanese (n=12) and Korean (n=49)). Some studies cluster subgroups into broader categories of East, Southeast and South Asia (Sohn, 2007). However, such solution may result in failure to consider potential variations among different nationality groups of Asian American immigrant mothers. Thus, only descriptive data on key study variables were provided across six Asian ethnic/cultural subgroups.

Implications

Implications for Practice and Policy

First, practitioners and school counselors need to understand the patterns of Asian American immigrant mothers' educational involvement. Consistent with prior studies, Asian American immigrant mothers are less likely to practice school-based involvement than home-based involvement. The result suggests that Asian American

immigrant mothers may feel more comfortable and competent with home-based involvement than school based involvement. However, an in-depth examination indicates that the rates differed even among the dimensions of school-based involvement. For example, Asian American immigrant mothers in this study tended to participate in school functions, such as volunteering and parent-teacher associations, more frequently than to contact schools for their children's educational plans or problems. Having knowledge of these patterns, practitioners and school counselors may challenge the prevalent assumption that Asian American parents are simply inactive in their participation at their children's school. Further, school personnel, particularly school counselors may use opportunities for volunteering and attendance of school functions to promote greater school-level involvement in Asian American immigrant mothers.

Second, this study suggests the importance of parent's social capital in promoting Asian American immigrant mothers' educational involvement across home and school. Asian American immigrant mothers' social networks with other parents of their children's friends and parents from their children's schools were significantly positively associated with all dimensions of parental involvement, except for parent's school contact for problems. In particular, parent's social capital was the only significant predictor of Asian American immigrant mothers' positive school contact and participation at school functions. These findings indicate that enhancing parent peer networks fosters Asian American immigrant mothers' overall interactions with their children's schools regardless of their English proficiency, length of residence in the United States, and social class. Thus, there is a great need for school-wide policies

and programs that connect Asian American immigrant mothers, especially those who are isolated and disadvantaged, to other parents. School counselors may organize phone-trees, support groups, and mentoring programs among parents (Hu, 2008; Sheldon, 2002; Sobel & Kugler, 2007). These programs provide Asian American immigrant mothers with emotional, informational, and instrumental support essential to their educational involvement (Cochran & Niego, 2002).

Third, collaboration with ethnic community organizations is crucial in successful involvement of Asian American immigrant mothers. Partnerships and resource sharing between schools and ethnic community organizations can alleviate cultural and linguistic barriers that Asian American immigrant mothers experience in their educational involvement. It is known that Asian American families are more likely to develop trust toward ethnic community organizations. In particular, ethnic community-based organizations provide valuable resources that can bridge cultural gaps between schools and Asian American immigrant mothers. These include bilingual translation, ethnic community networks, and skills working with Asian American families. It is important for practitioners and school counselors to serve as bicultural mediators. For example, school counselors, in collaboration with members of ethnic community organizations, may conduct workshops introducing how to navigate the U.S. school systems and interact with school personnel. Such programs allow Asian American immigrant mothers not only to learn about American school culture but also to communicate their own educational beliefs and expectations. Consequently, Asian American immigrant mothers become more connected and confident with their children's school education.

Fourth, practitioners and school counselors need to develop parent involvement programs that address the needs of Asian American immigrant mothers rather than school-determined agenda. School-centered parent involvement programs often impose themes and standards dictated by schools. As a result, parents, especially from low-income, ethnic minority immigrant backgrounds, feel disempowered and eventually become disengaged from home-school partnerships. In contrast, parent-centered programs are empowering by helping parents eliminate their barriers to involvement. For instance, school counselors may design programs to improve social capital and English proficiency among isolated, low-income Asian American immigrant mothers. One example is offering ESL classes, where mothers can meet other parents and learn about the school system. With enhanced English skills and knowledge about school education, disadvantaged Asian American immigrant mothers can build their capacity as active advocates for their children's educational success.

Fifth, this study points to the need for school personnel and school counselors to employ a strength-based empowerment approach when working with Asian American immigrant mothers. While a *deficit perspective* presumes parents from non-dominant groups are powerless and incapable of helping their children, strength-based empowerment approach is underscoring assets that parents already possess. Most importantly, shifting to a strength-based empowerment approach helps disengaged Asian American immigrant mothers to have the sense of ownership in their educational involvement.

The literature suggests that many Asian American immigrant/refugee mothers, despite the enormous hardships and traumas, still survived and supported their families (Fong, 2004). Consistent with the prior literature, the current result indicates that Asian American immigrant mothers were actively involved in their children's education, particularly through monitoring and parent-child joint engagement in social activities. These cultural strengths need to be valued and be reframed as resources. For instance, Asian American immigrant mothers can be invited as guest teachers to share their unique cultural heritages in classrooms. Asian American immigrant mothers may also serve as parent liaisons and take leadership roles in planning and implementing various parent involvement programs.

Last, descriptive data on ethnic/cultural subgroups show that Asian American immigrant mothers vary in their socio-cultural backgrounds and parent involvement practices. School personnel and practitioners should not overlook this diversity. In particular, programs and policies should reflect the specific needs of the disadvantaged groups given that they may encounter additional challenges because of their lack of resources. Equally important is to develop more inclusive parent-involvement programs that can promote intra- and inter- ethnic/cultural social networking among Asian American immigrant mothers. Such programs enable participants to share common concerns as immigrant parents and to increase knowledge of other cultures. Ultimately, Asian American immigrant mothers can build competence as parents in multicultural U.S. society. School personnel, especially school counselors need to play a key role as cultural brokers to bring parents from diverse backgrounds together into the school community.

Implications for Future Research

Additional qualitative research on Asian American immigrant parents needs to be conducted. Using a secondary database, the current study was able to provide information about educational involvement of a nationally representative sample of Asian American immigrant mothers. However, limited survey items did not enable the researcher to capture the richer context wherein Asian American immigrant parents construct their parent involvement strategies. For example, interviews may reveal how Asian American immigrant mothers conceptualize parental involvement. Similarly, case studies would provide contextualized information about the parent involvement process by considering the characteristics of specific schools, parents, and their children simultaneously.

A longitudinal approach needs to be applied to the future research as well. It is important to consider the possibility of reciprocal relations between students' educational outcome and parental involvement. For example, Asian American immigrant mothers may initiate contacting schools in response to a decrease in their children's academic achievement. In turn, this involvement may result in raising children's academic achievement in later years. In addition, a longitudinal approach may illuminate possible changes in an Asian American immigrant parent involvement patterns over time. Although this study focused on high school students, the literature review suggests that Asian American parents adopt different types of involvement, according to a child's age (Chao & Tseng, 2002).

One of the key findings from the current study was the importance of parent's social capital in Asian American immigrant mothers' educational involvement. Future

research needs to further examine the nature of social networking among Asian American immigrant parents, including its racial/ethnic composition, size, and setting. Additionally, the process in which social ties contribute to Asian American immigrant parental involvement needs to be explored. In particular, how a parent's social capital promotes Asian American immigrant parents' school-based involvement should be further examined.

Additional studies need to examine the impact of acculturation on Asian American immigrant parental involvement. Levels of acculturation should be measured comprehensively by examining not only Asian American immigrant parents' English proficiency and length of residence in the United States but also their beliefs about educational involvement and parent-school relationship, as well as, knowledge about U.S. educational systems.

Further quantitative studies on Asian American immigrant parental involvement need to investigate the effects of school and child variables in addition to parent's socio-cultural backgrounds. For example, school personnel's attitudes toward minority immigrant parents, welcoming school environment, and school's willingness to develop family-school partnership would greatly affect Asian American immigrant parent involvement practices. Previous research also showed that students' gender and behavior problems at schools affects parental involvement. Ho and Williams (1996), in their studies on nationally representative eight graders, found that parents discussed school more with girls than with boys, yet contacted more frequently with school with boys than with girls. Parents of students who had demonstrated behavior problems were more likely to contact with schools and were less likely to participate

at schools. Future studies on Asian American parental involvement need to consider these students' characteristics

Finally, this study adopted imputation techniques to treat missing data due to its amount and pattern. However, future research may replicate the current study, using a simple deletion method, in order to confirm the results. Also, future research should recruit more participants from each Asian American ethnic/cultural subgroup, given that small sample size for several subgroups (e.g., Japanese (n=12) and Korean (n=49)) limited the examination of ethnic/cultural diversity in the present study.

Conclusion

Despite that Asian Americans are one of the fastest growing cultural groups in U.S. schools (Lew, 2006), there is a lack of empirical research on Asian American parental involvement, especially with a nationally representative sample. The current study contributed to an understanding of Asian American immigrant parental involvement and parent-school relations by examining its underlying structure among nationally representative Asian American immigrant mothers and how mothers' social and cultural backgrounds influenced each involvement dimension differently.

Literature suggests that Asian American immigrant mothers' non-mainstream socio-cultural backgrounds often impede their access to the dominant social institutions such as school. However, mothers of the current study were not merely constrained by their disadvantaged backgrounds. Rather, these mothers showed the potential to increase their home-based involvement such as parent-child joint engagement in social activities and parent monitoring with enhanced English skills and social networks. In addition, parent-peer social ties were found to be a significant

predictor of Asian American immigrant mothers' school-based involvement, including positive school contact and participation at school functions.

These findings support the social capital view of parental involvement, where parents actively construct their involvement strategies by constantly negotiating available socio-cultural resources with their children's school education. In light of the social capital view, current findings also emphasize the importance of empowering social relations through which Asian American immigrant mothers can overcome their barriers to involvement and generate resources in order to promote their children's educational success. Collaboration between school personnel and ethnic community-based organizations is indispensable to bridge the cultural gaps between Asian American immigrant mothers and schools. Asian American immigrant mothers may further build on their capacities as full, equal educational partners, when the parent-involvement programs and practices focus on their needs and strengths.

APPENDIX A

Proportion of Missing Data

Table 16
Frequency for missing data (N=597)

Independent Variables	Survey Questions	Missing Data			
		N	%	P-B*	
				N	%
Social Capital	54-e. Belong to any other org with several parents from tenth grader's school	127	21.3	113	18.9
	59-ca. Parent knows about child's first close friend	164	27.4	113	18.9
	59-da. Parent knows about the mother of child's first close friend	168	28.1	113	18.9
	59-ea. Parent knows about the father of child's first close friend	167	28.0	113	18.9
	60-a. Frequency of the parents of tenth grader's friends gave advice	146	24.4	113	18.9
	60-b. Frequency of the parents of tenth grader's friends did the parent a favor	146	24.5	113	18.9
	60-c. Frequency of the parents of tenth grader's friends received a favor form the parent	142	23.7	113	18.9
	60.d- Frequency of the parents of tenth grader's friends provided supervision on an educational outing or field trip	143	24	113	18.9
Deleted from social capital scale construction	59-cb. Parent knows about child's second close friend	190	31.8	113	18.9
	59-db. Parent knows about the mother of child's second close friend	183	30.7	113	18.9
	59-eb. Parent knows about the father of child's second close friend	186	31.2	113	18.9
	59-cc. Parent knows about child's third close friend	223	37.4	113	18.9
	59-dc. Parent knows about the mother of child's third close friend	190	31.8	113	18.9
	59-ec. Parent knows about the father of child's third close friend	216	36.2	113	18.9

Note: The proportion of missing data is the result of frequency analysis after deleting six cases from the "base sample" because the cases had missing data on socioeconomic status (BYSES) and tenth grader academic achievement (BYTXCSTD) variables.

*P-B indicates missing data due to respondent's partial interview break-off

(Table 16 continued)

Independent Variables	Survey Questions	Missing Data			
		N	%	P-B	
				N	%
English Proficiency	31a. How well parents understand spoken English	189	31.6	106	17.7
	31b. How well parents speak English	186	31.1	106	17.7
	31c. How well parents read English	186	31.1	106	17.7
	31d. How well parents write English	186	31.1	106	17.7
Length of residence in U.S.	18. How many years ago did biological mother come to the United States?	131	22.0	113	18.9
Social Class	BYSES: A composite variable of family income, levels of mother and father 's education, and mother and father's occupational status	0	0	0	0
Dependent Variables		Missing Data			
		N	%	P-B	
N	%				
Asian American Parental Involvement	53A. Parent school contact for tenth grader's poor performance	126	21.1	113	18.9
	53B. Parent school contact for tenth grader's school program for year	135	22.6	113	18.9
	53C. Parent school contact for tenth grader's plans after high school	140	23.4	113	18.9
	53D. Parent school contact for tenth grader's course selection	137	22.9	113	18.9
	53E. Parent school contact for tenth grader's poor attendance	137	23.0	113	18.9
	53F. Parent school contact for tenth grader's problem behavior	136	22.9	113	18.9
	53G. Parent school contact for tenth grader's positive behaviors	139	23.2	113	18.9

(Table 16 continued)

Dependent Variable	Survey Questions	Missing Data			
		N	%	P-B	
				N	%
Asian American Parental Involvement	54A. Parent belongs to the school's parent-teacher organization	133	22.3	113	18.9
	54B. Parent attends meetings of the parent-teacher organization	127	21.3	113	18.9
	54C. Parent takes part in activities of the parent-teacher organization	131	22.0	113	18.9
	54D. Parent acts as a volunteer at the school	134	22.5	113	18.9
	55A. How often parent checks homework completion	125	21.0	113	18.9
	55B. How often parent discusses report card with her child	123	20.6	113	18.9
	55C. How often parent knows where the tenth grader is when he/ she is not at home or in school	124	20.8	113	18.9
	55D. How often parent makes and enforce curfews on school nights	125	20.9	113	18.9
	57A. How frequently parent attended school activities (sports, plays, concerts etc) with her tenth grader	123	10.5	113	18.9
	57C. How frequently parent attended concerts, plays, or movies outside school with her tenth grader	123	20.6	113	18.9
	57D. How frequently parent attended sporting events outside of school with her tenth grader	126	21.2	113	18.9
	57E. How frequently parent attended religious services with her tenth grader	131	21.9	113	18.9

(Table 16 continued)

Control Variables	Survey Questions	Missing Data			
		N	%	P-B	
				N	%
Tenth grader's academic achievement	BYTXCSTD: Standardized composite score on math and reading	0	0	0	0
School urbanicity	BYURBAN: Urbanicity of school locale	0	0	0	0
Demographic Data		Missing Data			
		N	%	P-B	
				N	%
Parent's Asian subgroup	16. Parent's Asian subgroup	127	21.3	113	18.9
Current marital status	10. Parent respondent's current marital status	5	.9	1	.2
Mother's highest level of education	BYMOTHEd: The highest level of education reached by the tenth grader's mother or female guardian	0	0	0	0
Mother's occupation status	BYOCCUM: Mother's or female guardian's occupation	0	0	0	0
Total Family income	BYINCOME: Total family income in 2001	0	0	0	0

Source: U.S. Department of Education, National Center for Education Statistics, Education Longitudinal Study of 2002. (ELS: 2002)

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