

Assessing Shifting Racial Boundaries: Racial Classification of Biracial Asian Children in the  
2000 Census

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## ABSTRACT

This study examined the racial identification of biracial Asian children by their parents, in a sample (N=9,513) drawn from 2000 Public Use Microdata Series Census data (Integrated Public Use Microdata Series 2009). I used competing theories of Asian assimilation to examine how characteristics of the child, the Asian parent, the non-Asian parent, and the local Asian community influenced the likelihood of a child's being identified as Asian, non-Asian, or biracial. Findings showed that child's, both parents', and community characteristics significantly influenced the child's racial classification. While the effects of greater assimilation significantly increased the likelihood of an Asian classification for third-generation children, in contrast, it decreased the likelihood of an Asian identification for first- and second-generation children. Findings showed that children with a black parent were less likely than children with a white parent to be identified as Asian instead of non-Asian. However, inconsistent with past findings, children with a Hispanic parent were more likely than those with a white parent to be identified as Asian rather than non-Asian. Exploratory analyses concerning a biracial classification indicate significant relationships with factors previously found to increase the likelihood of an Asian identification, including the effects of greater Asian assimilation and size of the local Asian community. Moreover, the relationship between parent's and child's gender on the child's racial classification may be more complicated than previously theorized, as I found evidence of "gender-matching" which meant that boys were more likely to be identified like their fathers, and girls more like their mothers.

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## CHAPTER 1 INTRODUCTION

A growing body of sociological literature has quantitatively studied the racial identification of mixed-race children using representative samples drawn from secondary data sources, such as the U.S. Census. To better understand the dynamics associated with the racial identification of biracial children, this research examines populations of “biracial” children, defining mixed-race children who have two parents of different, single-race ancestry (Saenz et al. 1995; Xie and Goyette 1997; Qian 2004; Roth 2005; Brunnsma 2005; Qian and Lichter 2007). Scholars have analyzed samples of interracial households, testing the effect of child’s, parents’, and community characteristics on outcomes for child’s reported racial identification—the dependent variable, typically interpreted in comparison to norms observed in monoracial groups. Past research on the racial identification of biracial Asian children, in particular, has used competing theories of Asian assimilation to test the effects of characteristics of the child, each parent, and the local Asian community on the probability of an Asian versus non-Asian identification for the child (Saenz et al. 1995; Xie and Goyette 1997).

Scholars have used the racial identification of children of interracial Asian/non-Asian marriages to better understand the social dynamics associated with the process of Asian assimilation (Saenz et al. 1995; Xie and Goyette 1997). Because some Asian immigrant groups have surpassed African Americans, Hispanics, as well as other minority groups in terms of social mobility and socioeconomic status, Americans tend to forget that Asians are considered a racial minority, overlooking the discrimination Asians face because of their race or immigrant status. Research on the identification of biracial Asian children allows researchers to see if assimilation theories, which predict an eventual absorption of monoracial Asians into the American mainstream, can explain identification options for mixed-race Asian populations, also as well as

assess the accuracy to which assimilation models continue to predict the experiences of contemporary Asian immigrant groups.

Using the racial identification of biracial Asian children as a possible indicator of greater Asian assimilation, the study of biracial Asian identification combines the foci of two other fields of research. Sociologists cite two key demographic shifts observed in the United States since the 1970's, which are believed to have resulted from specific legislative changes made during the 1960's. The first, the Hart and Cellar Immigration Act of 1965, repealed the limitations on immigrant established by National Origins Act of 1924. Consequently, since the 1970's, an influx of Asian and Hispanic immigrant populations have drastically increased the size and presence of these groups in American society. The second, the landmark 1967 decision in the U.S. Supreme Court case, *Loving vs. the state of Virginia*, made it unconstitutional for states to deny interracial couples the right to marry. Scholars also believe that higher rates of interracial marriage, not only for white/non-white couples, but also non-white/non-white couples has directly contributed to the growth of various multiracial populations.

Until 1997, mixed-race individuals and parents of mixed-race individuals were unable to report multiple race categories. Standards established by the federal government in 1977 still limited respondents to single-race classification only. Modifications to the federal classification standard in 1997 allowed respondents to the 2000 U.S. Census the possibility of a multiracial classification by establishment of the "check all that apply" option. Because racial group membership could only be reported as a single-race in the decennial censuses of 1970, 1980, and 1990, this new standard has proven problematic to social scientists and statisticians, as it is impossible to statistically compare findings from studies done before and after the 1997 standard change.

### *What Predicts Child's Racial Identity in 2000?*

To examine the racial classification of biracial Asian children in the 2000 Census, the present study tests competing hypotheses of Asian assimilation to examine patterns of racial identification among biracial Asian children in the 2000 United States Census. Similar to past studies, I test the explanatory power of characteristics of the child, the Asian parent, the non-Asian parent, and the local Asian community, which previous research identified as significantly influencing the racial classification of biracial Asian children. Existing research on biracial Asian populations used 1980 and 1990 PUMS data to predict the likelihood of an Asian versus non-Asian identification by parents of biracial Asian children (Saenz et al. 1995; Xie and Goyette 1997). Like Xie and Goyette (1990), I include households that could have two racial minority parents, as both African American and Hispanic spouses were sampled.

However, because parents can now claim more than one race, the dependent variable for this study is a three-category variable representing the reported race of the biracial Asian child: (1) Asian parent's race only, (2) non-Asian parent's race only, or (3) a biracial combination of both parent's races. Although I replicate the hypotheses tested by Xie and Goyette (1997), differences between the 1990 data and the 2000 data necessitated some exploratory analyses, especially for comparisons between biracial and monoracial (single-race) classifications. Thus, hypotheses predicting a biracial identity were primarily exploratory. Two sets of competing hypotheses--assimilation versus awareness and rational versus constraining--will be discussed in the next chapter.

## CHAPTER 2 REVIEW OF THE LITERATURE

### BACKGROUND: RACE, MIXED-RACE, AND CATEGORIZATION

Studies on the history of the racial classification and identification in the United States demonstrate how fluctuating categories of race maintained the purity, privilege, and boundaries associated with white racial status (Root 1992; Zack 1995; Root 1996; Brodtkin 1998; Roediger 1999; Smedley 1999; Rockquemore and Brunnsma 2001; Yancey 2003; Roth 2005; Pascoe 2008). Race theorists, critical race theorists, and historians have shown how whites manipulated formal and informal racial classification procedures by frequently redefining the qualifications needed to be considered “white.” In doing so, they limited access to whiteness, thereby also controlling the social boundaries of “white privilege.” Racial classification was another instrument of white hegemony. Categorization and racial identity therefore not only created “racial” differences, but also reified the associated differences in social status, identity, and privilege through the development of socio-cultural norms that maintained a hierarchical racial system (Du Bois 1903; Brodtkin 1998; Roediger 1999; Smedley 1999; Steinberg 2001; Yancey 2003).

Scholars describe the hypocritical and unwavering belief in the purity of the white race as being at the crux of the American racial system (Smedley 1999; Gould 1981; Wallenstein 2002; Wallenstein 2004; Rockquemore and Brunnsma 2001). As a white-dominated racial status quo required the use of *exclusive* (white or not-white), thus *singular* definitions of race, the American ideological obsession with racial purity reinforced the cultural mechanisms necessary to maintain the stringent boundaries separating whites from non-white groups. Consequently, multiracial populations have historically been difficult to categorize within America’s racial system. The presence of such hybrid populations was problematic to the organization of racial groups in America, because the existence of mixed-race individuals challenged the racial ideologies of



essentialism and purity used to maintain a white-dominated status quo. These ideologies discouraged interracial sexual relations and cast mixed-race individuals as abominations, sterile (like mules), and biologically unnatural. Hence multiracial people have been marginalized throughout American history (Smedley 1999). As with all non-white groups, the intentional use of singular, exclusive categories of race denied mixed-race individuals the right to self-identify. Moreover, both informal cultural and formalized legal means were further limited the choices of mixed-race individuals. Studies on “hypodescent” demonstrate that the race of mixed-race individuals was usually relegated to that of the non-dominant or lower-status group (Roth 2005; Smedley 1999; Rockquemore and Brunsma 2002; Brunsma 2006; Zack 1995).

Eventually, as socio-cultural norms failed to keep the races separate, more formal mechanisms were established to more stringently maintain these racial and social boundaries. The institutionalization of “quantum blood”—the pseudo-scientific study of the “fractional” representation of one’s racial ancestry—was one way that whites used racial categorization and classification to limit non-whites’ political representation and civic engagement. Anti-miscegenation laws, which prohibited interracial unions and marriage, were another way whites used racial categories to disenfranchise mixed-race persons and legally enforce racial and social disparities (Gould 1981; Roediger 1999; Pascoe 2008; Wallenstein 2002; Wallenstein 2004). These laws affected not only interracial couples, but their children as well. Because of the illegality of their parents’ union, mixed-race individuals were illegitimate, not recognized legally or socially as part of American society.

#### *American Mixed-Race, Post-Loving*

It was not until 1967, with *Loving v. the State of Virginia*, that the Supreme Court ruled it unconstitutional to prohibit interracial marriages. Prior to 1967, sixteen states had laws against

interracial marriages; at one point, forty of the fifty states banned interracial marriage (Wallenstein 2002; Wallenstein 2004; Roth 2005). Although mixed-race populations have always co-existed along the other “pure” racial and/or ethnic groups, only recently has the social stigma these individuals and their families faced begun to lessen. Scholars dispute how much the *Loving* decision contributed to the multiracial baby boom—the exponential increase in children identified as two or more races on the Census in the late 20<sup>th</sup> century. Nonetheless, the cultural impact of the landmark 1967 Supreme Court case was indisputable. The decision significantly lowered ideological and institutional barriers, as interracial marriages and the progeny from these unions were finally legally recognized (Root 1995; Ferber 1995; Smedley 1999; Wallenstein 2002; Wallenstein 2004; McDonough 2005; Brunnsma 2005).

Following the 1960’s, it seemed as though the decline of the formal mechanisms that had restricted the rights and actions of all racial minorities would result in greater freedom or recognition for those of mixed-race ancestry. In the latter decades of the 20<sup>th</sup> century, the increased presence of self-identified mixed-race individuals in the public realm, such as Tiger Woods or Lenny Kravitz, as well as the emergence of scholarly research on multiracial individuals, seemed to indicate greater acceptance of such populations. However, federal standards regulating the definition and measure of racial and ethnic groups in the United States continued to limit the identity and identification choices of multiracial individuals and children.

#### RACE AND ETHNICITY IN THE UNITED STATES CENSUS

The United States Census has collected data on race since 1790. Until 1997, federal standards required that individuals to report only one racial or ethnic group, regardless of the possibility of a multi-racial ancestry. These standards, established by the Office of Management and Budget, are known as Statistical Policy Directive No. 15, [the] Race and Ethnic Standards

for Federal Statistics and Administrative Reporting; and regulate the gathering of race and ethnic information by all government agencies, including the Census, public schools, and Social Security. The 1977 federal standard, which was used in the 1980 and 1990 Censuses, stipulated that individual classification be limited to a single race , and despite pressure from the American public, was not revised until 1997.

### *The 1990 Census*

In 1990, the federal standard for reporting racial or ethnic group membership consisted of five basic categories: American Indian or Alaskan Native; Asian or Pacific Islander; Black; Hispanic; or White. Although respondents could elaborate on specific ethnic groups within a racial category (for example, identifying as Asian and specifying a Chinese ethnicity), identification was limited to one group. The 1990 Census also included an “other” category, where respondents could write in a response if they could not choose from the existing categories. According to Census officials, for those persons who reported more than one race, the category which best represented their group membership was reported, and if that could not be ascertained, they were included in the “other” category (Bureau of the Census 1993; Fernandez in Zack 1995). However, an estimated 97% of those who identified as “other” were actually Hispanic.

After the 1990 Census, demands by pro-multiracial groups, such as the Association of Multiethnic Americans (AMEA) and Project RACE (Reclassify All Children Equally), led by monoracial parents of mixed-race children, resulted in a series of hearings concerning future revisions to the standards (Root 1992; Root 1996; Zack 1996). This grassroots effort requested a more accurate method of classifying individuals of mixed-race ancestry. AMEA and Project Race arduously fought to overturn Directive 15, citing that, “even ‘objective’ information

sources, such as birth certificates or other documents, are not necessarily accurate, because they are subject to the flaws and biases of our racial classification system. For example, [there is a case] in which three sons of the same biological parents were identified as three different races on their birth certificates” (Root 1995:184).

Moreover, as presented in the testimony prior to the 1997 revisions, these limitations on classification had not only psychological and abstract ramifications concerning the identity of mixed-race individuals, but also more serious and tangible consequences as well—some that directly affected their physical lives. One striking example shows how the health of a mixed-race individual can be jeopardized by monoracial identification. Oftentimes, medical records of infants or individuals of multiracial descent listed only one race; for example, a mixed black-white individual could be classified only as “white.” However, medical professionals glancing at this record, seeing only white, overlook the importance of testing for and considering serious diseases such as sickle cell anemia, which affects large portions of the African American population (Root 1992). After a formal review, OMB released its new federal standards, which included a “check all that apply” procedure. Although activists had pushed for a multiracial or mixed-race category, the OMB instead allowed for respondents to choose and report multiple racial and/or ethnic ancestries, instead of selecting a specific box for mixed-race or multiracial.

#### Revisions for the 2000 Census

In 1997, the Office of Management and Budget released the new federal standard for reporting race and ethnicity for official federal surveys and data collection. The revised OMB Statistical Policy Directive Number 15, which allowed a “check all that apply” option, finally granted mixed-race individuals the option to identify with one or more groups when reporting their race and ethnicity. In addition, other modifications were made to the racial classification schema: First, two new ethnic categories were established--Hispanic or not-Hispanic. Second, the number

of racial categories increased to six (from the four established in 1977): American Indian or Alaska native; Asian; black or African American; native Hawaiian or other Pacific Islander; white; and some other race. Moreover, the form provided three separate opportunities for “write-in” responses, to allow respondents greater freedom and/or accuracy in reporting racial and/or ethnic group membership. According to the U.S. Census Bureau, these changes were an attempt to “better reflect the country’s growing diversity” (Grieco and Cassidy 2001).

---Figure 1 about here--

Figure 1 is a reproduction of the race and ethnicity questions used in the 2000 Census. The ancestry questions for the 2000 Census consisted of a two-question battery (see Figure 1). Respondents were asked to answer both questions 5 (establishing Hispanic as an ethnic identity rather than a racial one) and 6 (racial identification). In order to implement the two new ethnicity categories, Question 5 asked respondents if they identified as “Spanish/Hispanic/Latino.” If yes, they could report a more specific Hispanic ethnic identification and write in a response. If not, respondents moved on to Question 6, “What is this person’s race?” Respondents were directed to select one or more racial categories, depending on “what this person considers himself/herself to be” (U.S. Census Bureau 2000).

*Reporting a multiracial classification in the 2000 Census.* In 2000, approximately 6.8 million respondents (2.4% of the total United States population) reported two or more races and of those, 93.3% (N=6,368,075) identified as biracial, by reporting exactly two races (U.S. Census Bureau 2001). Although these figures may seem negligible in relation to the entire United States population in 2000, when considered in the context of the gradual increase of the multiracial population over the last 30 years, 6.8 million individuals is in fact an exponential increase from even the 1990 estimates. According to the Population Reference Bureau, from 1970 to 1991, the

number of mixed race couples (excluding Hispanics) increased from 310,000 to 994,000. Similarly, reports of children born to parents of different races rose from less than 1% in 1968, to 3.4% in 1989. Xie and Goyette (1997) reported that an estimated half a million children under the age of 17 had one Asian parent and one non-Asian parent in 1990. In comparison, in 2000, biracial Asian-white individuals (N=868,395) represented 13% of the 6.8 million population. However only 106,782 individuals identified as both black and Asian, and 2,224,082 Hispanics reported two or more races.

## EXPLAINING BIRACIAL ASIAN IDENTIFICATION

### *Asian Assimilation*

Theories of Asian assimilation are similar to Gordon's Anglo-Conformity model of assimilation. The Anglo-Conformity model of assimilation cites an immigrant group's acculturation as "the complete renunciation of the immigrant's ancestral culture in favor of the behavior and values of the Anglo Saxon core group" (Gordon 1964: 85). Gordon believed that the adoption of mainstream norms and acculturation could occur through socialization or by "structural assimilation" (Gordon 1964: 110). Gordon predicted that minority groups would be absorbed into mainstream society via intermarriage and identificational assimilation—that is, the giving up of a symbolic Asian ethnic identity, in lieu of one that is more compatible with the white majority. The racial identification of biracial Asian children has been quantitatively examined in order to understand patterns of identification among interracial, married Asian/non-Asian couples within the theorized models of classic, unidirectional, white/non-white assimilation (Saenz et al. 1995; Xie and Goyette 1997). Increased socioeconomic status and exogamous marriages to "higher" status groups have been cited as ways that minority groups have increased their social status (Loveman and Muniz 2007). Moreover, as whiteness studies

scholars have shown, rising socioeconomic status usually accompanied a blurring or shifting of racial boundaries and identities among different racial and ethnic groups (Brunsma 2005; Loveman and Muniz 2007; Roediger 1999; Steinberg 2001; Lee and Bean 2007; Lee and Bean 2004; Saenz, Hwang, Aguirre, and Anderson 1995; Xie and Goyette 1997; Yancey 2003).

Recent studies demonstrate that contemporary Asians in America experience a unique “dual” social status. On the one hand, Asians, unlike other racial minorities, exhibit steady upward social mobility, as shown by rising education and income. On the other hand, Asians, like African Americans and varying Hispanic groups are considered to be racially distinct from whites and can face racial discrimination. For these reasons, Asians are of interest.

Existing literature on interracial Asian/non-Asian marriages and biracial Asian populations has typically used a modified Anglo-conformity model of assimilation. Scholars have examined demographic patterns among Asian populations, including rates of Asian-to-non-Asian interracial marriage and racial identification practices among populations of biracial-Asian children, to examine the implications these trends have for future Asian populations (Saenz et al. 1995; Xie and Goyette 1997; Qian 2004; Qian and Lichter 2007). Because Asian-American integration is positively correlated with SES and rates of exogamous marriage, scholars have applied assimilation theories to test whether the integration patterns of Asians in America might be similar to the “whitening” processes explained by Anglo conformity models of assimilation. As studies show, parental choices in racial identification and classification may have significant implications for the organization and boundaries of American society, especially in terms of how identity and racial identity form in relation to the racial dynamics, relationships, and memberships.

### *Research on Biracial and Multiracial Individuals*

Research on the burgeoning multiracial population has taken two approaches. The first, primarily qualitative, applies social psychological theories to understand the racial identity development of mixed-race individuals (Kich 1982; Poston 1990; Wijeyesinghe 1992; Wijeyesinghe 2001; Rockquemore and Brunnsma 2002; McDonough 2005). Some research has used in-depth interviews to survey samples of multiracial individuals, asking about self-defined racial identity choices and exploring possible factors found to influence identity among similar mixed-race populations. These qualitative studies indicate that contemporary mixed-race Americans have more control over identity choices than their historical counterparts. Scholars cite the absence of imposed categorization schemas, such as those associated with the “one-drop rule” as the reason for the increased freedom and variation. Moreover, combined with an increase in Asian and Hispanic populations, the racial identification of mixed-race individuals is no longer theorized as a dichotomous either/or. Racial identification varies from person to person and sometimes from situation to situation, greatly complicating the issue of racial identity both at the individual and institutional levels (Zack 1995; Clancy in Zack 1995; Twine 1996; Wijeyesinghe 2001; Rockquemore and Brunnsma 2001; Brunnsma 2006).

A second approach, primarily quantitative, examines a biracial child’s racial identity as a choice made by interracial parents. These studies often use secondary survey data to examine large samples of various multiracial populations (Saenz et al. 1995; Xie and Goyette 1997; Lee and Bean 2004; Roth 2005; Brunnsma 2005; Bratter 2007; Tafoya 2007). Research on interracial couples and their biracial children has examined child, parent, and community predictors on the reported racial identity of the child within a given population. Scholars have tested competing



theories of assimilation (corresponding to groups in their analysis) by analyzing patterns of ethnic and racial identification, which indicate racial and social boundaries.

### *Research on Biracial Asians*

Research on biracial Asian populations, more specifically, has applied sociological theories of assimilation to analyze patterns of ethnic and racial identification among these multiracial populations as measures of Asian assimilation, or perhaps, with the case of biracial Asian-Anglo(-white) children, even absorption into the American, Anglo mainstream (Xie and Goyette 1997; Saenz et al. 1995). These studies, concerned with the implications of racial classification for the “survival” of an racial ethnic identity/population in the United States, have used Census data to predict the probability that a biracial child will be identified as “Asian” (i.e., singularly as the Asian parent’s race or ethnicity) versus “non-Asian” (i.e., singularly as the same race or ethnicity reported by the non-Asian parent). Because racial identity was still limited to monoracial identification prior to the 2000 Census, Census respondents for both the 1980 and 1990 surveys had to report a single racial identity for a biracial Asian child.

Saenz, Hwang, Aguirre, and Anderson (1995) used 1980 PUMS data for California to examine the racial identification choices made by parents of biracial Asian children in the 1980 United States Census. Using a multi-level model based on Gordon’s three types of assimilation, Saenz et al. (1995) tested a sample of biracial Anglo-Asian children (N=913) living in California, to see if parents were more likely to identify their biracial child as “Anglo,” “other,” or “Asian.” They found that parents of biracial Asian-Anglo children were most likely to identify their child as “Anglo,” supporting an Anglo-conformity hypothesis. However, 38% of children were identified as “Asian.” Moreover, Saenz et al. (1995), found that a child’s Asian identification

was significantly influenced by Asian generational-status and the proximity to an Asian community-- variables used to approximate the influence or exposure to Asian culture.

Expanding on the findings by Saenz et al. (1995), Xie and Goyette (1997) used 1990 United States Census data to examine a nationally representative sample of biracial Asian households (N= 7,808). In addition to biracial Asian-Anglo children, Xie and Goyette also included biracial Asian-Hispanic and biracial Asian-black children to their analysis. As with the previous research, the dependent variable, the racial identification of a biracial Asian child, measured whether interracial couples identified their biracial child as “Asian” or non-Asian. Predictors included indicators of socioeconomic status. As I will discuss below, Xie and Goyette tested competing theories of racial and ethnic assimilation in predicted whether parents identified their child as Asian non-Asian.

#### WHAT PREDICTS CHILD’S RACIAL IDENTITY IN 2000?

In order to examine the racial classification of biracial Asian children in the 2000 Census, the present study draws on existing research on biracial Asian populations, which used 1980 and 1990 PUMS data to predict the likelihood of an Asian versus non-Asian identification by parents of biracial Asian children (Saenz et al. 1995; Xie and Goyette 1997). Similar to past studies, I test the explanatory power of several predictors identified in the literature as significantly influencing the racial classification of biracial Asian children. Like Xie and Goyette (1990), I include households that could potentially have two racial minority parents, as both African American and Hispanic spouses were sampled. However, because of the changes made to the federal classification standard, the dependent variable for this study is a three-category variable representing the reported race of the biracial Asian child; these categories are: (1) Asian parent’s race only, (2) non-Asian parent’s race only, and (3) a biracial combination of both parent’s races.

Thus, hypotheses predicting a biracial identity are primarily exploratory, as the changes in the racial classification procedures make it impossible to statistically compare the results from the 2000 Census to past censuses.

Building on Xie and Goyette's (1997) study, the present study tests multiple sets of competing hypotheses as to what predicts a child's racial identity to test a sample of biracial Asian children. The existing literature finds that child's racial identity is significantly influenced by child's characteristics, parents' characteristics, and community characteristics (Saenz et al 1995; Xie and Goyette 1997; Roth 2005). Two sets of competing hypotheses—assimilation versus awareness and rational versus constraining—are discussed in the following paragraphs. I also state several exploratory hypotheses for how the predictor variables influence the probability of a biracial versus a monoracial Asian or non-Asian classification.

#### *Assimilation versus Awareness*

Xie and Goyette (1997) tested competing theories of assimilation to examine the effect of greater assimilation on child's racial identity. Specifically, are more highly assimilated Asian parents more or less likely to pass on an Asian identity to their biracial child? First, Xie and Goyette proposed an assimilation hypothesis (Xie and Goyette, 1997). Similar to Gordon's theory of Anglo conformity, it predicts that Asians will be less attached to their own Asian culture as they become more integrated into American society. In turn, more assimilated Asian parents are less likely to identify their child as Asian. Asian assimilation into Anglo culture is more likely as Asians have more contact with white, mainstream society. Xie and Goyette use two indicators of Asian assimilation: The first is Asian parent's education (representing increased socioeconomic status); the second is the child's Asian immigrant generation. According to this perspective, both should be negatively related to the probability of an Asian

identification. That is, highly successful or highly educated Asian parents are less likely to identify their child as Asian. Similarly, children of Asian parents whose families have lived in the United States for more generations also are assumed to be more assimilated than first-generation families, and are therefore less likely to identify their child as Asian.

A second, contrasting theory generates the awareness hypothesis, which predicts the opposite relationship: that more integration into mainstream society increases Asians' sense of "ethnic awareness" (Xie and Goyette 1997: 552). The awareness hypothesis predicts that as Asians become more assimilated, they become more aware of the competition between groups for limited and valuable resources, and thus more conscious of being a racial and ethnic minority. Therefore, the awareness hypothesis predicts a positive relationship between assimilation and the probability of an Asian identity. From this perspective, the higher is parents' education and income and the more generations the family has lived in the U.S., the more likely parents are to identify their children as Asian.

These competing hypotheses use two explanatory variables, child's immigrant generation and Asian parent's education to test whether assimilation or awareness predict a biracial Asian child's racial identification. The assimilation hypothesis predicts a negative relationship between immigrant generation or Asian parent's education and the likelihood of the child's being classified as Asian. Conversely, the awareness hypothesis predicts that immigrant generation and education increase the likelihood of an Asian identity. Xie and Goyette (1997) also hypothesized that the effect of education would vary by generation (discussed further below).

*Asian immigrant generation.* In 1990, first-generation children were more likely to be identified as Asian compared to second- and third-generation children, supporting the assimilation hypothesis (Xie and Goyette 1997). However, second-generation children were less

likely than both first and third-generation children to be identified as Asian. According to Xie and Goyette (1997) the failure of the assimilation hypothesis to explain why third-generation children were more likely than second-generation children to be identified as Asian suggests that the identification of third-generation children was better predicted by the awareness hypothesis. According to the awareness hypothesis, third-generation children, despite greater assimilation than second-generation, were more closely identified with their Asian heritage.

*Asian parent's education.* Asian parent's education had little effect on the child's racial identification in 1990 (Xie and Goyette 1997). However, Asian parent's education interacted with Asian immigrant generation to affect racial identification. In 1990, Asian parent's education had little effect on the probability of an Asian identification for first- and second-generation children. However, for third-generation children, Asian parent's education had an increasingly positive effect on the probability of an Asian identification. Consistent with the awareness hypothesis, as Asian parent's education increased, the probability of a third-generation child being identified as Asian also increased. However, as mentioned, this effect was only significant for third-generation children and it was minimal.

#### *Cultural and Structural Factors*

Findings from past studies have revealed that group membership, or ties to a certain community, significantly influence racial identity development (Ferdman and Gallegos 2001; Jackson 2001; Kim 2001; Murguia and Forman 2003; Rockquemore and Brunsma 2001; Root 1996; Root 1992; Twine 1996; Wijesinghe 1992). The awareness hypothesis predicts that greater exposure to Asian groups and culture will increase the likelihood of an Asian identity, because of greater "awareness" of and identification with Asian culture. Two indicators of awareness of Asian and

ethnic culture the Asian parent's Asian ethnic group (for example, Chinese versus Korean) and the size of the local Asian population.

*Ethnic differences within the pan-Asian category.* Although Asians in America are categorized as a racial group, differences within this category contain a broad array of Asian nationalities and ethnicities. Previous research (Saenz et al. 1995 and Xie and Goyette 1997) has found that racial classification of biracial Asian children can vary within the different Asian-ethnic groups represented in the Census. In 1990, Chinese and Japanese parents were more likely to identify their child as Asian; conversely, Asian Indian, Korean, and Filipino parents made it less likely that the child would be identified as Asian (Xie and Goyette 1997). Although no formal hypotheses will be tested, the present study explores whether racial identification varies depending on the ethnicity of the Asian parent.

*Local Asian population.* In 1990, Xie and Goyette (1997) found that biracial Asian children were more likely to be identified as Asian as the proportion of Asians increased. Other studies have also found that racial identity was closely related to the racial composition of the local area (Xie and Goyette 1997; Roth 2005). Based on the above research, I hypothesize that the larger is the Asian population, the greater the likelihood of classifying one's child as Asian. Similar to the awareness effect of education, Xie and Goyette hypothesized that the effect of local concentration of Asian Americans may interact with generation. Xie and Goyette found that the effect of the local Asian concentration had the strongest effect for third-generation children and the weakest for first-generation children, with the effect for second-generation children, somewhere in between (Xie and Goyette 1997:563). Therefore, the awareness hypothesis, predicts that the odds of an Asian identification for first-generation will be high, regardless of the local concentration of Asians. The awareness hypothesis further predicts that

the effect of the local Asian population has the *weakest* effect for first-generation children and the *strongest* effect for third-generation children, with the effect for second-generation somewhere in between.

### *The Rational and Constraining Hypotheses*

*Race of non-Asian parent.* Saenz et al.(1995) found that a 1980 sample of biracial Asian-Anglo children California were just as likely to be identified as Anglo as they were to be identified as Asian. These findings suggested that biracial Asian-Anglo children might experience “optional ethnicity,” a term derived from assimilation and whiteness studies scholars, used to describe the identity choices observed in assimilating groups. Xie and Goyette (1997) expanded this analysis to test the possibility of biracial Asian experiencing optional “racial” identification, and they included Hispanic and black parents to their analysis. To test the effect of race of the non-Asian parent, Xie and Goyette (1997) developed the rational and constraining hypotheses to test theories of assimilation related to optional racial identification in predicting the likelihood of an Asian versus non-Asian identity. The rational hypothesis predicts that children from Asian-black marriages or Asian-Hispanic marriages are more likely to be identified as Asian than non-Asian. The constraining hypothesis predicts that children from these types of parents are less likely to be identified as Asian than non-Asian, because of the existing social norms associated with the populations and race/ethnicity of the non-Asian parent.

Similar to theories explored in social psychological research, these hypotheses are related to past social norms related to racial categorization, citing historical differences related to specific groups in the United States. For example, scholars test to see if patterns associated with the “one-drop rule” still explain patterns of racial identification among multiracial black populations (Roth 2005; Brunsma 2005). Or, if historical variations in anti-miscegenation laws

among Anglo, *Mexicano*, and black populations in the Southwest which enforced patterns of identification associated with hypodescent based on an individual's racial "combination" still inform contemporary choices in racial identity (Ferdman and Gallegos 2001; Glenn 2002; Murguía and Foreman 2002; McDonough 2005).

Consistent with the constraining hypothesis, in 1990, biracial Asian-black and biracial Asian-Hispanic children were less likely to have an Asian versus a non-Asian classification than were biracial Asian-white children (Xie and Goyette 1997). In contrast to the patterns of racial identification found among biracial Asian-white children, biracial black identity choices still indicate the presence of a "color line" separating whites and blacks (DuBois 1903). As studies indicate, patterns of identification and classification among biracial black-white populations continue to mirror past socio-cultural norms, which prevented mixed black individuals from identifying as anything but singularly and exclusively black (Saenz, Hwang, Aguirre, and Anderson 1995; Xie and Goyette 1997; Steinberg 2001; Roth 2005; McDonough 2005; Bratter 2007).

However, according to recent studies, the effect of having a black or a Hispanic spouse versus a white one may have changed. By 2000, Hispanics (like certain Asian groups), were able to cross racial and social boundaries and interact more with whites. Native-born Hispanics had the highest rates of intermarriage with whites, followed by Asian Americans (Qian and Lichter 2007). Moreover, this pattern held regardless of status, as Hispanics at every educational level had the highest rates of intermarriages with whites.

Although the majority of these studies used white/non-white interracial families, the effect of each parent's race can be approximated, as two patterns emerge: The first is that Asians, followed by Hispanics, experience the greatest flexibility in the racial identification of



their biracial children (Bratter 2007; Farley and Haaga 2005; Xie and Goyette 1997). Second, the racial identification of biracial black individuals seems less flexible in comparison, as black parents are more likely to identify their biracial children as ‘black’ rather than biracial or as the non-black parent’s race (Rockquemore and Brunnsma 2001; Farley and Haaga 2005; Roth 2005). In 2000, a study of biracial whites found that of those who reported a single race in 2000, black-white individuals were more likely to identify as black, compared to other types of monoracial classification (Lee and Bean 2007). In contrast, Asian-white individuals, followed by Hispanic-white individuals, were more likely to report a singular white race if they only reported one race or ethnicity. Black-white biracials were the least likely group to identify as white (Lee and Bean 2007).

Based on the above research, I hypothesize that the race of the non-Asian parent significantly influences the child’s racial identification. Consistent with past findings (Saenz et al. 1995; Xie and Goyette 1997), I expect that if the non-Asian parent is white, then there should be an equal probability of being classified as Asian versus white. However, Asian parents may be attempting to “whiten” their biracial children and increase their acculturation and assimilation with mainstream society. If so, these couples would be most likely to classify their children as white, less likely to classify them as biracial, and least likely to classify them as Asian. However, compared to other interracial families, I also expect that Asian-white families are more likely to choose a biracial identity for their child than Asian-black or Asian-Hispanic families.

Based on previous findings and consistent with the constraining hypothesis, I predict that when the non-Asian parent is black, biracial children are more likely to be identified as black than both biracial and Asian. I further predict that having a black parent increases the probability of a biracial classification versus a monoracial Asian one. The constraining hypothesis predicts

that families with a Hispanic or black parent will be less likely to identify their child as Asian. However, based on more recent demographic trends for Hispanic groups, such as increased intermarriage with whites across all education levels, I believe that racial classification for biracial Asian-Hispanic children will support the rational hypothesis. The rational hypothesis predicts that biracial children are more likely to be identified as Asian than Hispanic. It is unclear whether these couples will choose between a monoracial or a biracial classification, therefore, this effect is primarily explorative.

### *Family Dynamics*

*Parent's and child's gender.* Previous literature tests two competing hypotheses related to parent's gender. As the legacy of hypodescent, in which the race of the mother determined her children's racial identity, seems to have been the prevailing practice for identifying past generations of mixed-race children, the first predicts that mother's race is more important in predicting child's racial identity. In contrast, the second predicts that father's race significantly influences the race of the child (Saenz et al. 1995; Xie and Goyette 1997; Brunnsma 2005). Although a third possibility is that racial identity is partly based on "gender-matching"—meaning that girls are identified in reference to their mothers and boys, in reference to their fathers, the rationale for this hypothesis is unclear. The gender-matching hypothesis predicts that the gender of both parent and child contribute to the child's racial identity and will be tentatively explored using an interaction term.

Based on previous research (Saenz et al 1995; Xie and Goyette 1997; Tafoya et al. 2004; Qian 2004; Brunnsma 2005), which has found that father's race was more significant than race of the mother across racial groups, it seems more likely that race of father significantly predicts children's racial classification. Therefore, I predict that the race of the father will influence the

racial identity of the child more than the race of the mother. Therefore, I expect to reject the rules of hypodescent and the maternal paternal of identification. Moreover, if the father is the Asian parent, I predict that the child will be more likely to be identified as Asian or biracial than non-Asian.

*Education of the non-Asian parent.* The awareness hypothesis implies that more educated minority parents will be more likely to classify their multiracial child as a minority (Roth 2005; Xie and Goyette 1997). In contrast, Brunisma (2005) found evidence to support a different hypothesis, which predicted “the higher is one’s social class, the less likely he or she is identify with a lower-status,” as Asian-white and Hispanic-white families of higher socioeconomic status were more likely to identify their child as white or multiracial, instead of the minority parent’s race (Brunisma 2005:3). Roth (2005) also found evidence inconsistent with the awareness hypothesis, as she found that education of both black and white parents was positively related to the odds of classifying biracial black-white children as either “biracial” or “other,” instead of black (or white). Therefore, education of the non-Asian parent should predict different outcomes in racial classification among biracial children. I tentatively hypothesize that overall, the higher is the non-Asian parent’s education, the more likely the child’s racial characteristics will include the non-Asian parent’s race.

## CHAPTER 3 Methods

### *Data and Sample*

This study used data drawn from the 5 percent 2000 U.S. Census Public Use Microdata Series (PUMS) (Integrated Public Use Microdata Series 2009). The original 5 percent 2000 PUMS sample had 14,081,466 person records from 5,663,214 households. The 5 percent data represents a sub-sample of households selected to fill out the long form of the Census questionnaire, which asked additional questions about occupation, income, and housing. Roughly 1 in 6 housing units was randomly selected using from a stratified random sample to respond to the long form (IPUMS 2009).

The design of the 5 percent sample makes “it possible to study the characteristics of people in the context of their families or other co-residents” by providing uniform pointer variables to identify individuals within families (IPUMS 2009). From the 5,663,214 households in the sample, I selected those households in which a single, married couple with at least one biological child were present (N=3,139,508). Only interracial Asian/non-Asian households were selected; and my sample was limited to the following types of interracial families: Asian-White, Asian-Black, and Asian-Hispanic. To observe the effects of parents’ characteristics on the racial identification of a theoretically biracial, Asian child, I limited my sample of children by sampling only parents who monoracially identified in the 2000 Census. I define monoracial as ‘single race or ethnicity’ respondents only. Using this logic, the present study defines a ‘biracial Asian child’ as having one ‘monoracial Asian’ parent and one monoracial-- Hispanic, Black, or White parent.

In an attempt to ease the theoretical implications and complications associated with the operationalization of the child’s racial classification, and more specifically the testing of various competing hypotheses related to past classification norms or practices for the different groups

represented by the child, scholars focus on “biracial” populations, as opposed to other types of multiracial or mixed-race populations. For this reason, researchers often exclude interracial and biracial Hispanic populations from their analysis. Because of the difficulty and inconsistency in defining this pan-ethnic, pan-racial group, the added intricacies associated with analyzing mixed-race identity make it both hard to identify potential populations, as well as complicate the operationalization of the raw data. To illustrate this point, in 1990, it is estimated that over 97% of those who identified as racially “other” were actually Hispanic (Bureau of the Census 1993). Although Xie and Goyette (1997) did include Hispanics in their study, many researchers using 2000 data to examine mixed-race populations do not. As Roth (2005) explains, in 2000, the potential overlap between Hispanic “others” and multiracial “others” makes it difficult to distinguish one group from the other, especially if an individual is mixed-race Hispanic. However, because my dependent variable only categorizes mixed-race children as either monoracial or biracial, as opposed to Roth who included a fourth “other” category, I decided to include Asian-Hispanic households, but exclude any “other” children in my analysis by coding them as missing, as I explain in more detail below.

I excluded 3,120,071 same-race couples, non-pertinent interracial couples, and parents who reported two or more races from the sample. Of the 17,169 interracial Asian/non-Asian households, I excluded children ages 15 and older, leaving 12,806 families with children under the age of 15. Because I limited my analysis to families living in the United States, 2,240 families living in Puerto Rico were excluded from the sample. I also excluded 1,056 biracial Asian children who had been racially classified as “other.” Children who were classified as three or more races; or as a biracial combination other than the Asian/non-Asian types specified were also excluded. Of the 5,663,214 households in the original 5% PUMS sample, 9,513 interracial

families were sampled; I then randomly selected one biracial Asian child per household regardless of birth order for my analysis. I sampled 9,513 biracial Asian children for my analysis.

### *Measures*

*Dependent variable.* The dependent variable was the racial classification of the child by a parent in the 2000 Census. Child's race was a three-category variable: Asian-race only, non-Asian race only, and biracial. As stated above, all other categories were coded as missing. Biracial was defined as an exact combination of the race the head of household and the spouse.

*Independent variables.* Four types of predictor variables were used: child's characteristics, Asian parent's characteristics, non-Asian parent's characteristics, and community characteristics.

*Child's characteristics.* Child's characteristics were gender, age, and immigrant generation. Gender was a dummy variable (male = 0; female =1). Child's age was measured in years and recoded into a set of dummy variables with three-categories: ages 0-4, 5-8, and 9-14. Immigrant generation of child was a set of dummy variables for first-generation and second-generation, using third-generation as the reference category. First-generation was coded as 1 if child was foreign-born. Second-generation was coded 1 if at least one of the child's parents was foreign-born. Third and higher generation children, whose parents were both native-born were the reference group, coded 0 (Xie and Goyette 1997).

*Asian parent's characteristics.* A dummy variable was computed to represent which parent in the family was Asian—the father or the mother. Asian fathers were coded as 1 with Asian mothers as the reference category. The ethnicity of the Asian parent was a set of seven dummy variables, with Japanese as the omitted reference category. Thus dummy variables for the following ethnicities: Chinese, Korean, Filipino, Asian Indian, and Southeast Indian; Pacific

Islander, and Other Asian were coded 1 (0=Japanese); all others were coded as missing. Asian parent's education was included as an indicator of socioeconomic status. Education was recoded into a five-category variable: 1 = less than high school; 2=high school graduate; 3 = some college; 4 =college graduate; and 5=advanced degree.

*Non-Asian parent's characteristics.* The race of the non-Asian parent in the main effects model was represented in a set of two dummy variables indicating if the non-Asian parent was Hispanic (1=Hispanic; 0=not Hispanic); or Black (1=Black; 0=not Black);= with White as the omitted, third category. Non-Asian parent's education was also included and recoded into a five-category variable: 1 = less than high school; 2=high school graduate; 3 = some college; 4 =college graduate; and 5=advanced degree.

*Community-level characteristics.* To determine the structural impact of the local racial composition, I included the natural log of the proportion of the population that was Asian within each Public Use Microdata Area (PUMA). The PUMA is the smallest geographical unit for which the racial composition information can be compiled (Roth 2005; Saenz, Hwang, Aguirre, and Anderson 1995; Xie and Goyette 1997).

### *Analytic Strategy*

I first computed descriptive statistics for the analytic sample. Table 1 shows the percent/mean for the total sample, as well as the percent of children classified as either: Asian, non-Asian, or biracial across a given characteristic.

I then performed multinomial logistic analysis to determine the main effect of each predictor variable on the probability of a child being classified as Asian versus non-Asian or Asian versus biracial. As mentioned, four types of predictor variables were used in this analysis: child's characteristics, Asian parent's characteristics, non-Asian parent's characteristics, and

community characteristics. For the main effects model: male children, children younger than 4, third-generation children, Asian mothers, Japanese parents, and white-parents were all omitted reference categories. Finally, I re-ran my analysis, using a series of interactions to test my hypotheses. An interaction of education by generation was used to see if the probability of an Asian classification increased or decreased as education increased. An interaction of generation by Asian population was included to test if the racial composition of an area increased an awareness of Asian ethnicity—thus increasing the likelihood of an Asian identification. A third interaction was used to test an exploratory hypothesis between child's sex and Asian parent's sex. If significant, these interactions were included in the final model.



## CHAPTER 4 RESULTS

### DESCRIPTIVE RESULTS

Table 1 presents the descriptive statistics for variables in the model of the racial identification of biracial Asian children in the 2000 Census. Column 1 reports the percentages of each predictor variable across the entire sample (N=9,513). Columns 2 through 4 show how each predictor variable was distributed on the three categories of the dependent variable. Each row represents the percentage of children across a given characteristic classified as either Asian, non-Asian or biracial. Of the entire sample of biracial Asian children, 17.4% were identified as Asian; 26.6% were identified as non-Asian; and surprisingly, 56.1% were identified as biracial.

Boys and girls were evenly distributed in the analytic sample. Moreover, according to Table 1, boys and girls followed similar patterns of identification across the three racial categories, with roughly only 17% being identified as Asian. About 40.8% of children were aged 0 to 4 years, 30.6% of children were aged 5 to 9 years, and 28.6% were aged 10 to 14 years. For each of the three age groups, the percentage of children identified as biracial was greater than that for the percentages of children identified as either monoracial Asian or non-Asian. However, among children identified as biracial, children younger than 4 years were 5% more likely than children aged 5 to 9 years, and almost 10% more likely than children older than 10 years, to be identified as biracial versus monoracial. This pattern suggests that the likelihood of a biracial identity may be negatively related to child's age, as successively fewer children in each of the two older age groups were identified as biracial. In contrast, among children identified as monoracial instead of biracial, the percentage of children identified as Asian or non-Asian increased with age. As Table 1 shows, only 16.2% of children younger than 4 years were identified as Asian, followed by 17% of children aged 5 to 9 years, and almost 20% of children

older than 10 years. Similarly, 23.4% of children younger than 4 years were identified as non-Asian, compared to 29.4% of children older than 10 years. These patterns suggest that there is a slight tendency for older children to be identified as monoracial instead of biracial and young children to be identified as biracial.

Similar to the 1990 cohort (Xie and Goyette 1997), the majority of children in the 2000 sample were second-generation (67.9%). Only 1.5% of children were first-generation; 30.6% were third-generation. As expected, first-generation children were more likely to be identified as Asian than were second- and third-generation children. About 36% of first-generation children were identified as Asian, compared to 17.5% of third-generation, and 16.7% for second-generation children. About 60% of third-generation children were identified as non-Asian, compared to 28.3% of first-generation children, and 28.1% in second-generation children. More than half of all second-generation children were classified as biracial, compared to 35.9% of first-generation children, and only 23.2% of third-generation children.

In 2000, 70% of households sampled had Asian mothers and non-Asian fathers; the remaining 30% of households had Asian fathers and non-Asian mothers. Regarding Asian ethnicity, one-fifth of Asian parents were ethnically Filipino. The next largest groups were Japanese (10.5%), Chinese (9.2%), or Korean (8.6%) spouse. Regarding the race of the non-Asian parent, whites predominated, accounting for 85.0% of the sample. Of the remaining 15%, families with a Hispanic parent made up 8.8% of the sample; and families with a black parent accounted for 6.2% of the sample.

## MULTIVARIATE RESULTS

Table 2 shows the results of the multivariate analysis. I report both the logistic regression coefficients and odds ratios to discuss the effect of predictor variables on the racial classification of the child. In Models 1a to 1c, I report the results of four types of predictor variables on the racial classification of the child. Models 2a to 2c, shown in the last three columns of Table 2, adds three sets of interaction terms that test additional hypotheses discussed in the literature review above. Each model has three columns, representing the multinomial logit analysis used to compare the three categories of the dependent variable. Columns 1a and 2a show the effects of the predictors on the likelihood of being classified as Asian versus non-Asian. Columns 1b and 2b show the effects of the predictors on the likelihood of being classified as being biracial versus non-Asian. Finally, columns 1c and 2c show the effects of the predictors on the likelihood of being classified as Asian versus biracial. I will first discuss the results of Models 1a to 1c, along with the tentative findings for variables involved in the interaction terms in Model 2. I will then describe the findings concerning the effects of the interaction terms in Models 2a to 2c.

#### *Assimilation or Awareness*

The assimilation and awareness hypotheses predicted opposite relationships between the likelihood of an Asian identification with two variables: child's Asian immigrant generation and Asian parent's education. The assimilation hypothesis predicted a negative relationship between child's immigrant generation or Asian parent's education and the likelihood of an Asian identification. In contrast, the awareness hypothesis predicted a positive relationship between these variables and a greater probability of the child being identified as Asian. As discussed above, all hypotheses related to the likelihood of a child being identified as biracial were exploratory, as it was unclear how to interpret the effects of these variables on the likelihood of a biracial classification, given the categorical changes made to the 2000 Census.

*Asian immigrant generation.* In Model 1a, first-generation children in 2000 were significantly more likely than third-generation children to be identified as Asian rather than non-Asian ( $b=.67$ ). First-generation children were also more likely to be identified as Asian rather than biracial (Model 1c), compared to third generation children. Consistent with Xie and Goyette's (1997) findings, first-generation children seem to follow the assimilation hypothesis, as they were more likely than third-generation children to be identified as Asian rather than either non-Asian or biracial, suggesting a negative relationship with generation and the probability of an Asian classification. However, as Models 1a and 1c show, being second-generation did not significantly influence the probability of an Asian identification.

In Models 1b and 1c, differences in child's Asian immigrant generation significantly influenced the probability of a biracial classification. As mentioned above, first-generation children were significantly more likely to be identified as monoracial (either Asian or non-Asian) rather than biracial, as compared to third-generation children. Model 1b shows that second-generation children were less likely than third-generation children to be identified as biracial rather than non-Asian ( $b= -.13$ ), despite almost 60% of third-generation being identified as non-Asian (according to Table 1) compared to only 28% of second-generation children. These findings demonstrate that the effect of generation significantly influences child's racial identification, even though variations in this effect could only be studied in Models comparing a biracial versus monoracial classification.

*Asian parent's education.* There was not a significant relationship between Asian parent's education and the likelihood of choosing an Asian versus a non-Asian identity, making it difficult to explain the findings in terms of either the assimilation or the awareness hypothesis. However, as both the univariate and multivariate results show, the more educated was the Asian

parent, the greater was the probability of the child's being identified as biracial instead of either monoracial Asian or monoracial non-Asian. In Models 1b and 1c, as the Asian parent's education increased, children were more likely to be classified as biracial versus non-Asian ( $b = .10$ ), as well as less likely to be identified Asian rather than biracial ( $b = -.12$ ).

Findings from Models 1a to 1c suggest a preference for monoracial identification among newer generations of Asian immigrants, with first-generation children the most likely to identify as Asian. However, as third-generation children as well as children with more highly educated Asian parents were more likely to be identified as biracial, it would seem as though the probability of a biracial classification was positively related to Asian immigrant generation and Asian parent's education, the two indicators used to approximate greater levels of Asian assimilation. These tentative findings are puzzling, and they cannot be fully explained by either the assimilation or the awareness hypothesis. Although first-generation children were more likely than third-generation children to be identified as Asian rather than non-Asian or biracial, the lack of significance for second-generation children in Models 1a and 1c made it hard to interpret trends in child's racial identification in terms of having a positive or negative relationship on the probability of the child being identified as Asian. On the one hand, it may be that the relationship between generation and racial identification differs depending on the educational differences of Asian parents of a certain generation. As I will discuss, the addition of interaction terms of Asian parent's education by child's Asian immigrant generation in Models 2a to 2c may also help to clarify these findings. However, on the other hand, it may be that more educated parents, of either race, are more likely to be aware of the importance of an ethnic and racial identity and heritage. This relationship, the effect of greater education for the non-Asian parent on child's

racial identification, was explored in Models 1a to 1c, and will be discussed in the Family Dynamics section below.

### *Cultural and Structural Factors*

The awareness hypothesis was also tested in Models 1a to 1c using two other variables related to awareness of Asian ethnicity and culture: Asian ethnicity and size of the local Asian population. As discussed above, although racially categorized as Asian, ethnic diversity and cultural differences within this category was tentatively hypothesized to affect outcomes in child's racial identification. These differences were explored in Models 1a to 1c, using dummy variables representing eight Asian ethnic groups. The awareness hypothesis predicted that families living in communities with larger Asian populations would be more likely to identify their child as Asian.

*Ethnic differences within the pan-Asian category.* Regarding the various Asian ethnicities, there were significant differences in racial classification of biracial children. Compared to Japanese parents, Pacific Islanders seemed most "aware" of their Asian heritage, as they were more likely to identify their children as Asian rather than non-Asian, as well as Asian rather than biracial. Parents identified as "other Asian" were also more likely to classify children as Asian rather than biracial. In contrast, Asian Indian parents and Chinese parents were less likely to choose an Asian identity. Asian Indian parents were less likely than Japanese parents to choose an Asian identity than a non-Asian one; they were also less likely to identify their child as Asian than biracial. Similarly, Chinese parents were less likely than Japanese parents to choose an Asian identity over a biracial one. Chinese parents were also more likely than Japanese parents to choose a biracial classification instead of a non-Asian identity. Southeast Asian parents, however, were more likely to choose a non-Asian identification rather than a

biracial one for their children. These patterns suggest that although Chinese parents were less likely than other groups to identify children as singularly Asian, they might be more likely to “compromise” the choice in child’s racial identity with their spouses. As Model 1b shows, Chinese children were more likely than Japanese children to be identified as biracial than simply non-Asian ( $b=.26$ ). Conversely, some parents’ preference for a non-Asian identification versus a biracial classification may be related to choices between a monoracial and biracial classification, as “other Asian” parents were less likely to identify their children as biracial than non-Asian and more likely to identify their children as Asian instead of biracial. Korean and Filipino parents did not differ from Japanese parents on children’s racial classification.

*Community characteristics.* Xie and Goyette (1997) found that in 1990, the larger the size of the local Asian population, the greater was the probability of a child’s being identified as Asian rather than non-Asian. As their findings were consistent with the predictions of the awareness hypothesis, I similarly hypothesized the effect of the size of the local Asian population to positively influence the probability of the child being identified as Asian. As Model 1a shows, inconsistent with past findings and my hypothesis, in 2000, the size of the local Asian population did not influence the probability of a child’s being identified as Asian versus non-Asian. However, the size of the Asian population did increase the probability of a biracial classification. According to Models 1b and 1c, children in communities with larger Asian population were more likely to be identified as biracial instead of non-Asian ( $b= .14$ ), as well as less likely to be identified as Asian rather than biracial ( $b= -.09$ ). To further investigate these relationships, interactions between the size of the local Asian population and child’s Asian immigrant generation were included in Models 2a to 2c, to see if the effect of the local Asian population on child’s racial identification varied by immigrant generation.

### *Rational and Constraining Hypotheses*

*Race of the non-Asian parent.* How the race of the non-Asian parent influenced the child's racial classification tested the rational and constraining hypotheses. The rational hypothesis predicts that black and Hispanic parents are more likely than white parents to identify their children as Asian than non-Asian. Conversely, the constraining hypothesis predicts that these parents are less likely than families with a white parent to identify their children as Asian than non-Asian. Xie and Goyette (1997) found that in 1990, Asian-black and Asian-Hispanic biracial children were less likely than Asian-white children to be identified as Asian. Their findings led them to reject the rational hypothesis, as Asian-black children were more likely to be classified as black and Asian-Hispanic children more likely to be classified as Hispanic than Asian, consistent with the constraining hypothesis.

However, given the changes to the Census and in social dynamics, I hypothesized that if the non-Asian parent was white, there should be an equal probability of the child being classified as Asian and white, and more likely than other types of Asian couples to identify their children as biracial. I also hypothesized that black-Asian couples would be most likely to choose a non-Asian classification and be least likely to identify their children as Asian with biracial somewhere in between. In contrast, I predicted that children with a Hispanic parent might be more likely to follow patterns consistent with the rational hypothesis, and therefore that these children were more likely to be identified as Asian or biracial rather than Hispanic.

As in 1990, families with a black parent in 2000 were less likely than those with a white parent to identify their child as Asian rather than non-Asian, that is, black. Black parents were also less likely than white parents to identify their child as Asian rather than biracial. For children with a black parent, these findings support the constraining hypothesis, which predicted



children with a black parent more likely to be identified as non-Asian (black) or biracial, than Asian. These findings support Xie and Goyette's hunch that children with parents who are both racial minorities (that is, one who is Asian and the other is either black or Hispanic), "may be simultaneously aware of two or more race and ethnic heritage ethnicities" (Xie and Goyette 1997: 562).

Interestingly, I did not find the same patterns for Hispanic-Asian families. Instead, the findings for Asian-Hispanic families were more consistent with the rational hypothesis, which predicted that children from Asian-Hispanic marriages would be more likely to be identified as Asian than non-Asian (Hispanic). In 2000, Asian-Hispanic couples were more likely to classify their children as Asian versus non-Asian than Asian-white couples were. Asian-Hispanic couples were also more likely than Asian-white couples to classify their children as Asian rather than biracial. These findings present an interesting comparison not only to other types of interracial Asian families in 2000, but also to Hispanic-Asian families in 1990, who were found to be "constrained" by their minority status. My results demonstrate a change from these patterns.

#### *Family Dynamics*

*Child's age.* In Models 1a-1c, child's age was related to the child's racial identification. Although child's age did not significantly affect the choice of an Asian versus a non-Asian identity, it negatively influenced the likelihood of a biracial versus a monoracial classification. Compared to children younger than 4 years, children aged 10 to 14 years were more likely to be Asian rather than biracial (Model 1c). Moreover, in Models 1b, children aged 5 to 9 years as well as those aged 10 to 14 years were less likely than children younger than 4 years to be identified as biracial than non-Asian. Similar to the descriptive results of Table 1, these patterns suggest that parents of older children prefer a monoracial rather than a biracial identification.

*Parent's and child's gender.* In Models 1a and 1b, having an Asian father increased the probability of the child being identified as Asian. My findings were similar to those of Xie and Goyette (1997), who found that children with Asian fathers were more likely to be identified as Asian than children with Asian mothers were. Consistent with the patrilineal identity transmission hypothesis, racial identification may be better predicted using father's race than mother's race. Compared to Asian mothers, Asian fathers were more likely to identify their child as Asian than either non-Asian ( $b=.64$ ) or biracial ( $b=.48$ ). Children with Asian fathers were more likely to be classified as biracial instead of fully non-Asian ( $b=.16$ ).

*Child's sex.* But, child's sex was found to be significant in the main effects model. Girls were more likely than boys to be identified as Asian versus non-Asian. Girls were also more likely to be identified as biracial rather than a non-Asian than were boys. Because both child's sex and having an Asian father were both significant in the main effects model, this relationship will be examined by an interaction variable. To better explore this relationship, an interaction between child's and Asian parent's sex was included in Models 2a to 2c. This interaction term, explained in more detail below, will further test two hypotheses related to the race and gender nexus—the theory of patrilineal identity versus the third hypothesized possibility of “gender-matching”.

*Non-Asian parent's education.* I tentatively hypothesized that overall, the higher was the non-Asian parent's education, the more likely the child's racial characteristics will include the non-Asian parent's race. Similar to the findings related to the education of the Asian parent in Models 1b and 1c, the greater the education of the non-Asian parent, the more likely it was that children were classified as biracial rather than non-Asian, as well as less likely to identify as Asian versus biracial. The consistency of a biracial identification of children among highly

educated parents of any race may lend support to the awareness hypothesis, which predicted that increased education may lead one or both parents to be more aware of their own racial and/or ethnic background. Interestingly, inconsistent with my hypothesis, when choosing between an Asian or a non-Asian identification, the higher the education of the non-Asian parent, the more likely it was that the child was identified as Asian instead of non-Asian if identified as a single race. In fact the education of the non-Asian parent had the greatest effect on the comparisons between a biracial versus non-Asian identification (OR=1.23).

Although these relationships could not be investigated further, given the nature and focus of my research questions, one suggestion for future research on mixed-race populations would be to explore the relationship between parent's race and education on child's racial identification, perhaps even computing an interaction of these terms to further explore how the effects of these variables may vary not only in relation to the dependent variable, but also with other independent variables.

## INTERACTIONS

Models 2a to 2c include three sets of interaction terms used to test competing hypotheses associated with the child's racial classification. All three significantly influenced the dependent variable and were therefore included in the final model. The following interactions were tested: child's Asian immigrant generation by Asian parent's education; child's Asian immigrant generation by Asian population; and child's sex (female) by Asian father.

### *Assimilation or Awareness*

*Generation by education interaction.* As mentioned above, the effect of greater Asian assimilation on the racial identification of the child is tested by two contrasting hypotheses: the assimilation and awareness hypotheses. In the main effects model (Models 1a to 1c), the

relationships of these two independent variables on categories of the dependent variable (child's racial identity) could only be tentatively explored. In Model 1a, Asian immigrant generation had a negative effect on the probability of the child being identified as Asian. I therefore suggested that perhaps the assimilation hypothesis better predicted the effect of generation on the identification of first- and second-generation children. In contrast, for third-generation children, the effect of generation on the child's identification seemed better explained by the awareness hypothesis. As an explanatory variable in the main effects model (Model 1a), Asian parent's education did not have a significant effect on the odds of a child's being identified as Asian versus non-Asian, and therefore could not be interpreted in terms of either the assimilation or awareness hypothesis. Because the main effects model could only explore the individual effects of Asian immigrant generation or Asian parent's education, interaction terms of these two variables were computed and added to Models 2a to 2c. Third-generation children were the reference category, and therefore for Asian parent's education represented the effect of education for Asian parents of third-generation children.

Both the assimilation and awareness hypotheses predicted that greater assimilation would affect the odds of an Asian classification. The assimilation hypothesis predicted that the effects of assimilation would have a negative effect on the probability of a child being identified as Asian. The awareness hypothesis predicted a positive relationship between Asian parent's education and Asian immigrant generation and a greater probability of being identified as Asian. In Models 2a to 2c, we see that the interaction of immigrant generation by Asian parent's education was significant for all three generations, meaning the effect of education on racial identification varied by immigrant generation.

The result from the addition of the interaction terms shows that educational variation of the Asian parent accounted for some of the variation in the probability of an Asian identity for first- and second-generation children in 2000. My findings were consistent with the assimilation hypothesis, which proposed that probability of identifying the child as Asian would be negatively related to immigrant generation and Asian parent's education. Model 2a shows that for first- and second-generation children the effect of Asian parent's education decreased the likelihood of an Asian identification versus non-Asian one, compared to third-generation children. These findings differ from those of Xie and Goyette (1997), who found that education had no noticeable or significant effects on racial identification for parents of first and second-generation children in the 1990 Census.

In contrast, for first-generation children, the effect of Asian parent's education was negative (.16-.59= -.43). That effect was significant (analyses not shown). For second-generation children, the effect of Asian parent's education on identifying a child as Asian versus non-Asian was slightly negative (.16-.22=-.06), but not significant. For third-generation children, Asian parent's education positively influenced the likelihood of the child's being identified as Asian (b=.16) versus non-Asian. Unlike first- and second-generation children, it seemed as though that the effect of education for third-generation was more consistent with the predictions of the awareness hypothesis than those of the assimilation hypothesis. These findings are similar to those of Xie and Goyette (1997), who found that the effect of the Asian parent's education in 1990 increased the likelihood of an Asian versus a non-Asian identification *only* for third-generation children. In analyses not shown, the effect of Asian parent's education on the racial identification of first-generation children was found to negatively influence the likelihood of a child's being identified as Asian, making first-generation children with an educated Asian parent

the least likely to be identified as Asian. In contrast, the effect of education for Asian parents of third-generation children made it more likely that the child was identified as Asian rather than non-Asian—a reversal of the negative trend observed for third-generation children overall, who were less likely to be identified as Asian than non-Asian (analyses not shown). Although my findings differ from those of Xie and Goyette (1997), the overall patterns seem to be similar. That is, the effect of Asian parent's education on identifying a child as Asian versus non-Asian changes from being negative in the first-generation to being positive in the third-generation. That is, the effects for first-generation children support the assimilation hypothesis, whereas the effect for third-generation children supports the awareness hypothesis.

As stated above, analyses concerning the likelihood of a child's being classified as biracial were primarily exploratory, as they did not clearly support either the assimilation or the awareness hypothesis. In Models 2b and 2c, the interaction of Asian parent's education with child's immigrant generation significantly influenced probabilities of the child's being classified as biracial. Models 2b and 2c show that the greater was the Asian parent's education, the greater was the probability of third-generation children's being identified as biracial rather than monoracial, Asian or non-Asian. Model 2b shows the effect of Asian parent's education on a biracial versus non-Asian classification for third-generation children was positive and significant. As Asian parent's education increased, the likelihood that third-generation children were identified as biracial versus non-Asian increased. In contrast, the effect of Asian parent's education was negative and significant for first-generation children ( $.27 - .51 = -.24$ ), and to a lesser extent, for second-generation children ( $.27 - .22 = .05$ ). As Asian parent's education increased, first- and second-generation children were then less likely to be classified as biracial

instead of non-Asian. In Model 2c, the effect of Asian parent's education on an Asian versus biracial classification for children was negative ( $b = -.11$ ) and it did not differ by generation.

The effect of the Asian parent's education on the likelihood of a child's being identified as biracial followed a pattern similar to the one observed for comparisons between an Asian versus non-Asian identification. That is the effect of an Asian parent's education on identifying a child as biracial versus non-Asian changes from being negative in the first generation to being positive in the third generation. That effect on the likelihood of child's being identified as Asian versus biracial (Model 2c) was negative and significant, meaning it decreased the likelihood of an Asian identification, making a biracial one more likely. However, as that effect was not found to vary by generation, it is hard to further interpret these results by extending the predictions of the awareness hypothesis.

#### *Cultural and Structural Factors*

*Asian population by Asian generation.* According to the awareness hypothesis, greater awareness of Asian ethnicity and culture was predicted to increase the likelihood of the child being identified as Asian. I therefore hypothesized that the larger was the Asian population, the greater was the likelihood of the child being classified as Asian. However, as Models 1a to 1c show, the effect of the size of the local Asian population seemed only to influence the probability of the child being classified as biracial instead of monoracial, and had no significant influence on parents choosing between an Asian versus non-Asian identity for their children. In Model 1b, the larger the size the local Asian population, the more likely it was that a child was identified as biracial instead of non-Asian. Similarly, in Model 1c, the larger the size of the local Asian population, the less likely was the probability of the child's being identified as Asian versus biracial.

As the awareness hypothesis also predicted the effect of the local Asian population to vary by generation, Models 2a to 2c include interactions for the effect of the size of the local Asian population by child's Asian immigrant population for further testing. Although findings from Models 1a to 1c demonstrate that the overall effect of the size of the local Asian population seemed only to increase the probability of a biracial classification, these relationships were further analyzed in Models 2a to 2c to see if this effect varied depending on the child's generation. Again, using third-generation children as the reference category, interactions for the effect of the size of the local Asian population were computed for first- and second-generation children. Therefore, the calculated odds for third-generation children were represented by the effect of the size of the local Asian population. The awareness hypothesis predicted the *weakest* effect for first-generation children—meaning that the odds of an Asian identification for first-generation will be high, regardless of the local concentration of Asians; and the *strongest* effect for third-generation children, with the effect for second-generation somewhere in between.

The results of the addition of the interaction terms show that the effect of the size of the local Asian population did vary by child's immigrant generation. As Models 2a to 2c show, the size of the local Asian population had the strongest effect on the racial identification of third-generation children, no effect for first-generation children, with second-generation children somewhere in between. The awareness hypothesis predicted that the size of the local Asian population would have the weakest effect for first-generation children as the likelihood of the child's being identified as Asian was high regardless of the size of the local Asian population. In a sense, consistent with this hypothesis, Models 2a to 2c show that the size of the local Asian population had no effect on the racial classification of first-generation children. The size of the local Asian population significantly influenced the racial identification of third-generation



children, and to a lesser extent, of second-generation children, as well. But this effect was only significant for biracial versus monoracial classifications (Models 2b and 2c). Model 2a shows that the size of the local Asian population had no significant effect on the likelihood of an Asian versus non-Asian classification; nor did this effect vary by generation. As I will discuss, because the addition of the interaction terms did not significantly influence the likelihood of Asian versus non-Asian classifications for all generations of children, I could not clearly interpret my findings in terms of the awareness hypothesis.

Models 2b and 2c show that the effect of the size of the local Asian population significantly influenced the likelihood of a biracial classification for third-generation children, as well as to a lesser extent for second-generation children. In Model 2b, the effect of the size of the local Asian population on the likelihood of a biracial versus non-Asian classification was positive and significant for third-generation children ( $b=.29$ ). For second-generation children this effect was slightly positive ( $.29-.22=.07$ ) and significant. As Asian population increased, the likelihood of second- or third-generation child's being identified as biracial versus non-Asian also increased. In Model 2c, the effect of the size of the local Asian population on an Asian versus biracial classification was negative and significant for third-generation children ( $b= -.20$ ). Although this effect was slightly different for second-generation ( $-.20+.18 = -.02$ ), it was not significant (analyses not shown). In Model 2c, as the size of the local Asian population increased, the likelihood of an Asian identification decreased, and children were more likely to be identified as biracial.

Although these findings could not be clearly interpreted within the assimilation or awareness hypotheses, it seemed, in a sense, that the effect of the size of the local Asian population followed patterns predicted by the awareness hypothesis. Xie and Goyette (1997)

found that the effect of the size of the local Asian population on the likelihood of identifying the child as Asian was strongest for third-generation children, weakest for first-generation children, with the effect for second-generation children somewhere in between (Xie and Goyette 1997: 563). As Models 2a to 2c show, the size of the local Asian population had no effect on the racial identification of first-generation children in 2000. In contrast, that effect for third-generation children increased the likelihood of a biracial versus non-Asian classification. The larger the size of the Asian population, the more likely it was that third-generation children were classified as biracial versus non-Asian. Despite differences in the actual outcomes for child's racial classification, the size of the local Asian population seemed to have a similar, positive effect on the racial identification of third-generation children.

#### *Family Dynamics*

*Girls with Asian fathers.* In Models 1a to 1c, I found that both parent's and child's gender positively influenced child's racial identification. Girls ( $b=.14$ ) compared to boys, and children with Asian fathers ( $b=.64$ ) rather than Asian mothers were more likely to be identified as Asian instead of non-Asian; and if not identified as Asian, girls ( $b=.12$ ) and children with Asian fathers ( $b=.16$ ) were more likely to be identified as biracial rather than non-Asian. Although findings from Models 1a to 1c seemed consistent with hypotheses related to the influence of father's race on the child's racial identification, because both child's and parent's gender were found to significantly influence child's identification, an interaction for these terms was computed and added to Models 2a to 2c. To further test the three hypotheses related to parent's and child's gender, an interaction representing girls with Asian fathers was included to Models 2a to 2c. Therefore, the effect for boys with Asian fathers was tested by the variable for Asian fathers; and

the effect for girls with Asian mothers represented by the variable for child's (female) gender, boys with Asian mothers being the reference category.

In Model 2a, I found significant differences in how parents identified boys and girls, an effect which also varied depending on the gender of the Asian parent. In Model 2a, the effect of having an Asian father on the likelihood of identifying the child as Asian versus non-Asian was positive and significant ( $b=.83$ ;  $OR=2.3$ ). This effect was found to vary by gender, as girls with Asian fathers ( $b=.83+.28-.34=.77$ ;  $OR=2.16$ ) were slightly less likely than boys with Asian fathers ( $b=.83$ ;  $OR=2.3$ ) to be identified as Asian versus non-Asian. In analyses not shown, boys with Asian mothers were found to be the least likely to be identified as Asian. Compared to boys with an Asian mother, girls with an Asian mother were slightly more likely to be identified as Asian rather than non-Asian ( $b=.28$ ;  $OR=1.3$ ). As Model 2b shows, the effect of having an Asian father was positive (.16), but did not significantly influence the likelihood of identifying a child as biracial versus non-Asian; nor did this effect did not significantly differ between girls and boys. In Model 2c, the effect of having an Asian father on likelihood of identifying a child as Asian versus biracial was positive and significant ( $b=.67$ ;  $OR=1.95$ ). For girls, this effect was positive and significant ( $b=.67+.17-.37=.47$ ;  $OR=1.6$ ), but slightly weaker than that for boys. Compared to boys with an Asian mother, girls with an Asian mother ( $b=.17$ ;  $OR=1.19$ ) were more likely to be identified as Asian versus biracial.

I tentatively hypothesized the racial identification of children might be significantly influenced by the gender of both parent and child. The findings reported in Models 2a and 2c support the exploratory hypothesis of "gender matching." These results demonstrate that predictions for child's racial identification which are based solely on whether father's or mother's race more significantly influences child's racial identification, prove inadequate when

trying to explain variations in racial identification outcomes due to differences in child's gender. Therefore, it may be that these patterns are more easily interpreted from the gender-matching hypothesis, which predicted that girls may be more likely to be identified as the mother's race, and boys more like the father's race, regardless of which one is Asian. Models 2a and 2c show that boys were more likely to be identified like their fathers, as boys with Asian fathers were most likely to be identified as Asian, and boys with Asian mothers, the least likely group to be identified as Asian. These findings suggest that racial identification may be tied to the gender of both parent and child, as the gender of his non-Asian parent might outweigh the ties to an Asian ethnic identity.

## CHAPTER 5 DISCUSSION AND CONCLUSIONS

### DISCUSSION

This study tested the ability of theories of Asian assimilation and awareness to explain how child's, each parent's, and community characteristics influenced the racial identification of a sample of biracial Asian children (N=9,513) by their parents, as reported in the 2000 U.S. Census (Integrated Public Use Microdata Series 2009). My study builds on previous studies (e.g., Xie and Goyette 1997), that tested for Asian versus non-Asian identification. Because racial classification was limited to single category prior to 1997, past research on the racial classification of biracial Asian children tested the likelihood of identifying the child as Asian versus non-Asian (Xie and Goyette 1997; Saenz et al. 1995). However, changes to the federal standard regulating race and ethnic classification made it possible for Census respondents in 2000 to use the "check all that apply" classification schema to report a mixed-race identification. Therefore, the addition of a third, biracial classification to my analyses—defined as an exact combination of the mother's and father's reported (single) race—was used to incorporate the

changes made to the racial classification schema used in 2000. Compared to Xie and Goyette (1997), who found that 38.8% (3,028 out of 7,808) of the biracial children in the 1990 sample were classified as Asian, I found that only 17.4% of children in the 2000 sample were classified as Asian; 26.6% were identified as non-Asian; and surprisingly, 56.1% were identified as biracial.

This study sought to answer three key questions related to the racial classification of biracial Asian children. Do theories of Asian assimilation or awareness continue to explain biracial Asian identification in 2000, as with findings from past research (Saenz et al. 1995; Xie and Goyette 1997). Are biracial children identified differently depending on the race of the non-Asian parent, especially when the non-Asian parent is either black or Hispanic? And finally, how has the inclusion of a biracial outcome affected identity choices among interracial Asian/non-Asian families? The assimilation and awareness hypotheses tested the effect of greater Asian assimilation and its relationship on likelihood of an Asian identification for the child. The rational and constraining hypotheses tested the effect of the non-Asian parent's race, specifically comparing the likelihood of an Asian identification for biracial children with a white parent, to those children with either a Hispanic or a black parent. The rational hypothesis predicted that children with either a black or a Hispanic parent would be more likely to be identified as Asian. In contrast, the constraining hypothesis predicted that these children would be less likely than those with a white parent to be identified as Asian. Exploratory testing for the relationship of parent's and child's gender on the child's racial classification was also analyzed

#### *Assimilation or Awareness*

*Asian parent's education and child's Asian immigration population.* I tested the contrasting predictions of the assimilation and awareness hypotheses to examine the effects of

characteristics of the Asian parent on the child's racial identification. Asian parent's education and child's Asian immigrant generation were two indicators used to represent the effect of greater assimilation on the child's racial identification. The interaction of these terms was also tested, to see if the effect of the Asian parent's education varied by Asian immigrant generation. The assimilation hypothesis predicted a negative relationship--that greater Asian assimilation would decrease the probability of the child's being identified as Asian. In contrast, the awareness hypothesis predicted a positive relationship, increasing the likelihood of the child's being identified as Asian. My findings suggest that the predictions of the assimilation hypothesis continue to explain the racial identification of first- and to some extent, second-generation children. However, the racial identification of third-generation children instead seemed more consistent with the awareness hypothesis, as greater assimilation, as shown by Asian parent's education, increased the probability of the child's being identified as Asian.

My findings also indicated that first-generation children were significantly more likely to be identified as Asian, regardless of the Asian parent's education or the size of the local Asian population. These results differed from those of Xie and Goyette (1997), who did not find significant relationships between the racial identification of first-generation children and the two indicators of Asian assimilation in their 1990 sample. However, both sets of findings supported the same conclusion—that the effects of Asian parent's education and child's Asian immigrant generation on the racial identification of first-generation child could be predicted using the assimilation hypothesis.

If interpreted using Gordon's Anglo-conformity model of assimilation, the decreased likelihood of first- and second-generation children's being identified as Asian may relate to the Asian parent's increased contact with mainstream, American society. While attempting to

integrate themselves and their families to mainstream society, Asian parents with greater education may be less likely to identify with their Asian heritage when faced with increased competition and exposure to American culture, and therefore less likely to pass on an Asian identity to their children. According to the assimilation hypothesis, third-generation children with highly educated Asian parents should represent the “most” assimilated group and therefore the least likely group to identify as Asian.

However, outcomes for third-generation children were inconsistent with the assimilation hypothesis, as the effect of Asian parent’s education for third-generation children varied significantly and differently from other comparison groups. In contrast to first-generation children, but similar to patterns observed by Xie and Goyette (1997), the effect of Asian parent’s education on the racial identification of third-generation children seemed to be predicted by the awareness hypothesis, as that effect made it more likely that third-generation children were identified as Asian versus non-Asian. In contrast to newly-immigrated Asian parents, the increased competition and interaction with mainstream society represented by greater educational attainment of Asian parents of third-generation perhaps makes these parents more aware of their Asian background, therefore making it more likely that they pass on that identity to their biracial children.

My findings also indicated that greater assimilation influenced the likelihood of a child’s being classified as biracial, an effect which varied by generation. The effect of Asian parent’s education had an additional negative effect on the likelihood of Asian versus biracial identification. More educated Asian parents of third-generation children were even less likely than third-generation parents overall to identify their children as Asian instead of biracial. These patterns indicate that for parents of third-generation children, greater education for the Asian

parent increased the probability of a biracial classification over that of either a monoracial Asian or non-Asian one.

Findings for the relationship of Asian parent's education and child's Asian immigration generation on the child's racial classification did not clearly support either the assimilation hypothesis or the awareness hypothesis. However, one possibility concerning the relationship between Asian parent's education and a child's biracial classification may incorporate an extension of the awareness hypothesis. Based on my results for the 2000 sample, it may be that instead of using the effect of Asian parent's education to predict an increased probability of a child's Asian identification, perhaps it should be modified to predict an increased likelihood of identifying the child as biracial. It may be that highly educated Asian parents in 2000 were not only more "aware" of the importance of an Asian identity and ethnicity, as predicted by the original awareness hypothesis, but also knew of the changes made to the federal racial classification schema in 2000 importance of a racial classification and took advantage of them, choosing a classification that more accurately reported the biracial child's multiple racial ancestries.

*The size of the local Asian population.* Analyses concerning the size of the local Asian population further tested the awareness hypothesis and its effect on the child's racial classification. However, these findings were not clearly interpretable in terms of the awareness hypothesis. The awareness hypothesis predicted that the effect of the local Asian population might increase the likelihood of a child's being identified as Asian. The awareness hypothesis further predicted that the effect of the local Asian population has the weakest effect for first-generation children and the strongest effect for third-generation children, with the effect for second-generation somewhere in between.



The size of the local Asian population had no effect on the likelihood of an Asian versus non-Asian identification for the child; nor did that effect vary by generation. However, the effect of the size of the local Asian population did significantly influence and increase the likelihood of identifying second- and third-generation children as biracial versus monoracial. These results could not be explained by the awareness hypothesis. Instead, these patterns might be better interpreted using theories of multiracial identity development (Clancy 1995; Twine 1996; Rockquemore and Brunsma 2001; Wijeyesinghe 2001; McDonough 2005). Findings from these studies demonstrate that the racial identity of contemporary mixed-race individuals may be shaped by their interactions with and/or acceptance by monoracial members of one or both racial backgrounds. Although biracial individuals share a common racial ancestry with monoracial members of one or the other parent's group, the effect of increased contact with one group versus another can work in two possible directions. Although increased contact with one group may make it more likely that the biracial individual identifies more with monoracial peers, interaction with monoracial peers is not always positive. Another possibility is that biracial individuals experience "boundary" maintenance from "both sides," meaning their mixed-race ancestry makes them unattractive to, or marginalizes them from monoracial members of one or both groups. It is from these experiences that some multiracial individuals consider themselves "double" minorities, because they are not only excluded from the majority group but from a minority group as well. It may be that parents of biracial children notice the "not quite this" and "not quite that" patterns of social acceptance, as their children may potentially find themselves socially isolated from monoracial members of both races.

#### *Rational and Constraining Hypotheses*

*The race of the non-Asian parent.* The race of the non-Asian parent was predicted to

significantly influence the likelihood of an Asian identification. The rational hypothesis predicted that children with a black or Hispanic parent would be more likely than children with a white parent to be identified as Asian. The constraining hypothesis predicted that children with a black or Hispanic parent would be less likely than children with a white parent to be identified as Asian. Previous research was concerned with the implications that patterns of biracial Asian identification had for the “survival” of an Asian ethnic identity and tested for the possibility of an “optional” racial or ethnic identity by examining the probabilities related to classifying a child as either Asian or non-Asian. As predicted, and similar to past findings, biracial Asian children with a black parent followed patterns predicted by the constraining hypothesis. Children with a black parent were less likely children with a white parent to be identified as Asian versus non-Asian. These children were also less likely to be identified as Asian versus biracial, compared to children with a white parent.

These findings are consistent with past research (Root 1992; Zack 1995; Root 1996; Brodtkin 1998; Roediger 1999; Smedley 1999; Rockquemore and Brunsma 2001; Yancey 2003; Roth 2005) which argued that the racial classification of biracial black children is still constrained by social norms that historically limited the racial classification and identification of mixed-race African Americans. However, another possibility suggests that black identification is not the product of imposed social norms, but instead, represents a positive choice among African American parents. As demonstrated by the history of American race relations, conflict between African Americans and white society has resulted in a push for unity within the black community. Therefore, according to this perspective, the salience of a black identity, even among mixed-race individuals, represents the efforts of the black community to consolidate not only political interests, but material interests as well. By having more people identified as black

or African American, the black community can more successfully vie for valuable resources and opportunities which are unequally distributed among racial/ethnic groups in American society.

I tentatively hypothesized that children with a Hispanic parent in 2000 would follow the rational hypothesis, which predicted that Asian-Hispanic children were more likely than Asian-white children to be identified as Asian. Consistent with this hypothesis, having a Hispanic parent made it more likely that children were identified as Asian rather than non-Asian (Hispanic). These children were also more likely than children with a white parent to be identified as Asian than biracial.

The findings for the effect of the race of the non-Asian parent of the child's racial classification differed from those observed in the 1990 sample. Xie and Goyette (1997) found that biracial Asian children with a black or Hispanic parent were less likely to be identified as Asian than those with a white parent, predictions consistent with the constraining hypothesis. Instead, my results indicate that the racial identification of children with a Hispanic parent in 2000, unlike those in 1990, or compared to other types of biracial Asian children in 2000, may be less constrained by the social and racial norms usually accompanying minority groups. These patterns are supported and parallel to other recent findings associated with indicators of social mobility observed for Hispanics in the United States. As I briefly discussed in the review of the literature, emerging research shows that Hispanics have replaced Asians as having the highest rates of exogamous marriage to whites (Qian and Lichter 2007). Moreover, as that pattern was observed across all levels of education, these findings suggest that for some groups of Hispanics, like Asians, the lines separating them from whites have blurred. Future research concerning the rates of exogamous marriage for Hispanics as well as the racial classification of children from these types of interracial relationship will have to consider these new findings, as these patterns

may necessitate a reconceptualization and re-drawing of many of the racial and social boundaries that have historically defined Hispanic groups in America.

### *Gender of Both Parent and Child*

Previous research (Saenz et al 1995; Xie and Goyette 1997; Tafoya et al. 2004; Qian 2004; Brunnsma 2005) including the findings of Xie and Goyette, has determined that patrilineal theories of identity transmission best explain the relationship between parent and child's racial classification. I originally predicted that the race of the father would significantly influence the racial classification of the child—expecting to reject the hypothesis related to rules of hypodescent and the matrilineal pattern of identification. Moreover, I also predicted that if the father was the Asian parent, the child would be more likely to be identified as Asian or biracial than non-Asian. Based on preliminary findings, I was able to reject the matrilineal identity hypothesis, as having an Asian father rather than an Asian mother, significantly increased the likelihood of child's being identified as Asian or biracial.

However, unlike Xie and Goyette (1997), I found that in 2000, child's gender influenced patterns of racial identification. As my results show, girls were more likely than boys to be identified as Asian versus non-Asian; they were also more likely to be biracial than non-Asian. Therefore, based on these findings, I decided to test for a third possibility—that the gender of both parent and child contributed to the child's racial identification. Although the rationale for this third, “gender-matching” hypothesis was unclear, it predicted that girls were identified in reference to their mothers, and boys, in reference to their fathers.

Although findings continue to support the hypothesis that father's race significantly influenced the probability of the child being identified as Asian, overall trends for boys and girls suggest that interpretation of these patterns may be more complicated than previously theorized.

Based on my findings, I believe that biracial Asian children were more likely to be racially matched to the parent whose gender they share. As my findings demonstrate, outcomes in child's racial identification varied not only depending on whether the Asian parent was the father or the mother, but also significantly and differently based on the comparisons between boys and girls. Consistent with predictions of the patrilineal identity transmission hypothesis, I found that father's race positively influenced the likelihood of a child's being identified as Asian or biracial versus non-Asian. However, that effect was stronger for boys than for girls. Significant variations in the racial identification of girls and boys with Asians mothers also suggested that parent's gender was not the only significant factor for outcomes related to child's identification. These results indicate that a child's identification may result from being racially matched according to both his/her gender, as well as the race *and* gender of his/her parents. The data suggests that girls were more likely to be identified like their mothers, and boys, more like their fathers, regardless of who was Asian.

Although not evident in as individual predictors, the combined effects of both parent's and child's gender suggest that both matrilineal and patrilineal theories of identity transmission may fail to explain this relationship. Therefore, in relation to parental choices of racial classification, the process of identification may be less contested than previously theorized. Instead of envisioning a household in which the identity of the child is based on underlying power dynamics related to patriarchal or racial norms, it may be that interracial couples are guided by an almost "natural" choice when deciding how or what to report for their child's race or ethnicity. Although this possibility could not be explored by the present study due to obvious limitations in the data, it may be that biracial children physically and/or phenotypically resemble their same-gender parent, and thus again, choices in racial identification are guided less by

differential power dynamics and relations, and more associated with more complicated factors or information that cannot be readily observed or studied by social science researchers.

## CONCLUSIONS

The present study is an important addition and update to quantitative research (Saenz et al. 1995; Xie and Goyette 1997) which examines racial classification of biracial Asian children. To date, mine is the only study that has used 2000 Census PUMS data to sample and study biracial Asian children and their parents. Moreover, it is one of few studies to include Hispanics in its analysis. Therefore, this study not only examines a unique sub-group of the multiracial population, but also provides a glimpse of the possible intersecting dynamics underlying America's racial boundaries, as both demographic and socioeconomic variables were found to significantly influence outcomes in racial identification. My findings, especially those that differ from past patterns of racial identification, present some interesting comparisons to these existing studies, as well as important implications for future research. The 2010 decennial U.S. Census will be conducted next year, and despite rumors of another change to the racial classification schema, it seems as though the Bureau will continue using the O.M.B. Statistical Directive #15 guidelines set in 1997, and used in the 2000 Census, allowing respondents to "check all that apply" when reporting a racial classification.

### *Limitations*

Two analytical components limited the research of the present study. The first concerns ambiguity of the selection process of parents when choosing and reporting a racial classification for their biracial child in the U.S. Census. As there is no way of knowing which parent filled out the Census form, much less the reasons why a particular racial classification was reported, or how this classification was decided, the present study was obviously limited in its ability to make

conjectures concerning the causality of certain factors or motivations behind parental choices in child's racial identification. The present study not only replicated Xie and Goyette's 1990 study, but also extended the analysis to include the possibility of a third, biracial classification. However, its theoretical and conceptual emphasis on the Asian parent makes its examination of a biracial Asian population incomplete, especially as all four types of predictor variables were found to significantly influence the racial identification of the child. As I will discuss in my recommendations for future research, the analytical emphasis on the characteristics of the Asian parent, theories related Asian assimilation and awareness all but ignore the possible effects related to the non-Asian parent, or to theories related to the race or ethnicity of the non-Asian parent. Although the present study found that theories of Asian assimilation and awareness can explain, to some extent, the racial classification of biracial Asian children, a more balanced analysis, which better incorporates theories and factors associated with the non-Asian parent, may yield a more accurate assessment and/or explanation of biracial Asian racial classification.

#### *Future Research*

Future research should be more balanced in its approach, conceptualizing a more equal investigation of the characteristics of both the Asian and non-Asian parent. In addition to the race and education of the non-Asian parent, a more thorough analysis should include measures of the non-Asian racial composition of a local community, as the size of both the black and Hispanic population also may significantly influence racial identification of children. Moreover, interactions between race of non-Asian parent and education should also be included, to better explain how variations in SES or other forms of social capital may influence choices in racial identity. For example, I found evidence that theories of Asian assimilation or awareness may not adequately explain patterns of racial identification for this sample of biracial Asian children.

Moreover, as both a mixed-race individual and someone who researches biracial and multiracial identity and identification, I further advocate the development and use of theories that are specifically theorized with the mixed-race individual in mind. Although multiracial research is an emerging field in sociology, it seems as though scholars seem determined to make mixed-race individuals fit into analyses developed for monoracial individuals. As my findings demonstrate, these theories fail to accurately and adequately explain the racial classification of mixed-race people.

Future research on multiracial populations should strive to be centered and grounded in the experiences of mixed-race individuals, rather than modifying existing monoracial theories. Furthermore, because of the diversity within the multiracial population, scholars should account for variation based on the specific “types” of mixed-race individual analyzed. For example, as the present study only examined a sample of biracial Asian children in the United States, these findings cannot be used to generalize about multiracial populations outside the United States. Although the findings for biracial Asian children may be used as a comparison to other mixed-race populations, they cannot be used to explain the racial identification of other, non-Asian, mixed-race populations.

The literature on the Latin Americanization of U.S. race relations and racial categorization offers one possible theoretical alternative to existing theories of Asian assimilation and awareness (Bonilla-Silva and Dietrich 2009; Bonilla-Silva 2009; Sue 2009; Bonilla-Silva 2004). Whereas the American racial system has typically been theorized within a binary white/black model, Bonilla-Silva’s Latin Americanization thesis (2004) proposes that the emergence of a tri-racial system, similar to that observed in Latin America and the Caribbean, will replace and re-organize the current stratification of the American racial order. According to



this perspective, the new racial hierarchy is comprised of three groups: whites, honorary whites, and a non-white (black) collective. Therefore, racial and social stratification will depend not only on one's race or ethnic background, but also upon one's class and skin-color. Moreover, this gradient, based on a combination of race, color, and class, means an increased reliance on phenotype as the determinant for one's status in the racial and social order. As increased rates of interracial marriage and growing multiracial populations currently complicate the existing racial order, choices in racial identification and classification will be critical to this new tri-racial order. The placement of Asian and Latino groups, in particular, along with various multiracial populations, as intermediaries to an even more pronounced divide between dominant whites on top and the collective non-whites on the bottom, will only exacerbate the gradations and inequalities already associated with a white-dominated, white-supremacist racial order (Bonilla-Silva and Dietrich 2009; Bonilla-Silva 2009; Sue 2009; Bonilla-Silva 2004).

Scholars must include biracial or multiracial populations in their studies on the United States population. Not only because it is important to understand and document process related to mixed-race classification, but also because of the relevance of these types of studies for other research which examines the dynamics of race and the processes of classification and identification. The use of a multiracial lens is unique in that it theoretically allows researchers to examine the relationships among specific intersections of race, class, gender, and power as represented by identity (Bonilla-Silva 2003; Brodtkin 1998; Brunsma 2005; Clancy 1995; McDonough 2005; Root 1996; Smedley 1999; Twine 1996). As stated by Robert Park in 1928, "It is in the mind of the marginal man that the moral turmoil which new cultural contacts occasion manifests itself in the most obvious forms. It is in the mind of the marginal man—where changes and fusions of culture are going on---that we can best study the processes of

civilization and progress” (Park 1928). In a way, the analytical lens of multiracial research examines allows for a more intricate examination of the various elements of the racialized social structure of the United States-- revealing the structural and ideological mechanisms underlying the social order of the racial hierarchy. I believe that research on mixed-race individuals represents the next step in critical race research concerned with intersectionality and inequality (Hills Collins 2000).

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Figure 1.

## Reproduction of Questions on Race and Hispanic Origin From Census 2000

→ **NOTE: Please answer BOTH Questions 5 and 6.**

**5. Is this person Spanish/Hispanic/Latino? Mark  the "No" box if *not* Spanish/Hispanic/Latino.**

No, not Spanish/Hispanic/Latino       Yes, Puerto Rican  
 Yes, Mexican, Mexican Am., Chicano       Yes, Cuban  
 Yes, other Spanish/Hispanic/Latino — *Print group.* ↘

\_\_\_\_\_

**6. What is this person's race? Mark  one or more races to indicate what this person considers himself/herself to be.**

White  
 Black, African Am., or Negro  
 American Indian or Alaska Native — *Print name of enrolled or principal tribe.* ↘

\_\_\_\_\_

Asian Indian       Japanese       Native Hawaiian  
 Chinese       Korean       Guamanian or Chamorro  
 Filipino       Vietnamese       Samoan  
 Other Asian — *Print race.* ↘       Other Pacific Islander — *Print race.* ↘

\_\_\_\_\_

Some other race — *Print race.* ↘

\_\_\_\_\_

Source: U.S. Census Bureau, Census 2000 questionnaire.

APPENDIX B. Table 1 Percentage Distributions of Child's Racial Identification by Child, Parent, and Community Characteristics (N = 9,513)<sup>a</sup>

	Percent of Given Characteristic Classified As: <sup>b</sup>			
	Percent/Mean for Total Sample	Asian	Non-Asian	Biracial
<b>Child's Characteristics</b>				
<b>Sex</b>				
Female	49.4	17.8	25.3	56.9
Male	50.6	17.0	27.8	55.2
<b>Age</b>				
0 thru 4	40.8	16.2	23.4	60.4
5 to 9	30.6	17.0	28.1	54.9
10 to 14	28.6	19.5	29.4	51.1
<b>Immigrant Generation</b>				
First-generation	1.5	35.9	28.3	35.9
Second-generation	67.9	16.9	28.1	55.1
Third-generation	30.6	17.5	59.3	23.2
<b>Asian Parent's Characteristics</b>				
Father	30.5	23.8	22.1	54.1
Mother	69.5	14.5	28.5	56.9
<b>Asian ethnicity</b>				
Japanese	10.5	14.9	20.2	64.9
Chinese	9.2	12.1	20.1	67.7
Korean	8.5	14.9	20.2	64.9
Filipino	21.6	14.9	28.3	56.8
Asian Indian	2.6	9.0	32.0	59.0
Southeast Asian	3.0	18.4	33.2	48.4
Pacific Islander	2.6	23.4	25.0	51.6
Other Asian	4.4	18.1	38.3	43.6
<b>Education</b>				
Less than High School	7.3	22.2	35.3	42.5
High School Graduate	15.9	18.1	32.4	49.5
Some College	31.1	17.6	27.2	55.2
College Graduate	29.3	17.1	23.9	59.0
Advanced Degree	16.1	14.5	20.5	65.1
<b>Non-Asian Parent's Characteristics</b>				
<b>Race of non-Asian parent</b>				
Non-Hispanic White	85.0	16.9	26.6	56.5
Hispanic	8.8	27.9	22.2	49.9
African American	6.2	8.6	32.8	58.5
<b>Education</b>				
Less than High School	3.8	19.9	39.6	40.4
High school graduate	16.3	20.9	32.8	46.3
Some College	34.9	18.2	27.2	54.6
College Graduate	25.8	15.6	23.9	60.4
Advanced Degree	19.3	14.7	21.1	64.2
Log (percent Asian in PUMA)				

<sup>a</sup>Data were based on the 5-percent 2000 PUMS. <sup>b</sup>Percentages add to 100 across racial identification categories.

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$  (two-tailed tests).

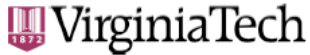
APPENDIX C

Table 2 Unstandardized Logistic Regression Coefficients with Odds Ratios for the Relationship Between Predictor Variables on the Three Categories of Child's Racial Identity in 2000

	(1a) Asian versus non-Asian		(1b) Biracial versus non-Asian		(1c) Asian versus Biracial		(2a) Asian versus non-Asian		(2b) Biracial versus non-Asian		(2c) Asian versus Biracial	
	b	OR <sup>a</sup>	b	OR	b	OR	b	OR	b	OR	b	OR
Intercept	-.92		-.25		-.62		-1.61***		-1.00***		-.61**	
Child's Characteristics <sup>b</sup>												
Female	.14*	(1.12)	.12*	(1.12)	.03	(1.03)	.28***	(1.32)	.11	(1.11)	.17*	(1.19)
Ages 5 to 9	-.13	(.88)	-.26***	(.77)	.13	(1.14)	-.14	(.87)	-.27***	(.77)	.13	(1.14)
Ages 10 to 14	-.03	(.97)	-.33***	(.72)	.30***	(3.38)	-.04	(.96)	-.34***	(.71)	.30***	(1.35)
First-generation	.67**	(1.95)	-.55*	(.58)	1.22***	(3.38)	2.91***	(18.31)	1.40*	(4.03)	1.51**	(4.54)
Second-generation	.00 <sup>c</sup>	(.97)	-.13*	(.88)	.12	(1.13)	.76***	(2.14)	.86***	(2.36)	-.10	(.90)
Asian Parent's Characteristics <sup>d</sup>												
Father	.64***	(1.90)	.16*	(1.18)	.48***	(1.62)	.83***	(2.29)	.16	(1.18)	.67***	(1.95)
Asian ethnicity												
Chinese	-.04	(.96)	.26**	(1.30)	-.30*	(.74)	-.05	(.96)	.26*	(1.29)	-.31*	(.74)
Korean	-.18	(.84)	-.12	(.89)	-.06	(.94)	-.20	(.82)	-.15	(.86)	-.05	(.95)
Filipino	-.05	(.96)	.06	(1.06)	-.11	(.90)	-.05	(.96)	.06	(1.06)	-.11	(.90)
Asian Indian	-.84***	(.43)	-.26	(.78)	-.59*	(.56)	-.81***	(.45)	-.23	(.80)	-.58*	(.56)
Southeast Asian	-.11	(.90)	-.30*	(.74)	.19	(1.21)	-.13	(.88)	-.31*	(.73)	.19	(1.20)
Pacific Islander	.44*	(1.55)	.06	(1.06)	.37*	(1.45)	.56**	(1.76)	.17	(1.18)	.40*	(1.48)
Other Asian	-.20	(.82)	-.56***	(.57)	.35*	(1.43)	-.20	(.82)	-.56***	(.57)	.36*	(1.43)
Education	-.02	(.98)	.10***	(1.104)	-.12***	(.89)	.16**	(1.17)	.27***	(1.31)	-.11*	(.89)
Non-Asian Parent's Characteristics <sup>e</sup>												
Hispanic	.57***	(1.77)	.14	(1.14)	.44***	(1.54)	.57***	(1.77)	.14	(1.15)	.43***	(1.54)
African American	-.74***	(.47)	.08	(1.08)	-.82***	(.44)	-.73***	(.48)	.08	(1.08)	-.81***	(.44)
Education	.09**	(1.10)	.20***	(1.23)	-.11***	(.89)	.09*	(1.09)	.20***	(1.22)	-.11***	(.89)
Log (percent Asian in PUMA)	.05	(1.05)	.14***	(1.15)	-.09***	(.92)	.09	(1.09)	.29***	(1.34)	-.20***	(.82)
Interactions												
Asian father X female child							-.34*	(.71)	-.04	(1.04)	-.37**	(.69)
First-generation X Asian parent's							-.59***	(.55)	-.51**	(.60)	-.08	(.92)
Education							-.22***	(.80)	-.22***	(.81)	-.003	(.997)
Second-generation X Asian parent's							-.29	(.75)	-.21	(.81)	-.08	(.92)
Education							-.04	(.96)	-.22***	(.80)	.18***	(1.20)
First generation X log (percent Asian)												
Second generation X log (percent Asian)												
Log-likelihood	17565.678						17499.755					
df	36						46					

<sup>a</sup>OR is the odds ratio; <sup>b</sup> is the logistic regression coefficient. <sup>c</sup> Omitted categories are male child, aged 0 to 4 years, and third-generation. <sup>d</sup> Absolute value of the coefficient is less than .005. <sup>e</sup>Omitted categories are mother and Japanese ethnicity. <sup>f</sup>Omitted category is white. \**p* < .05; \*\**p* < .01; \*\*\**p* < .001 (two-tailed tests).

APPENDIX D. IRB Exempt Approval Letter




**Office of Research Compliance**  
Carmen T. Green, IRB Administrator  
2000 Kraft Drive, Suite 2000 (0497)  
Blacksburg, Virginia 24061  
540/231-4358 Fax 540/231-0959  
e-mail [ctgreen@vt.edu](mailto:ctgreen@vt.edu)  
[www.irb.vt.edu](http://www.irb.vt.edu)  
FWA00000572( expires 1/20/2010)  
IRB # is IRB00000667

DATE: August 11, 2009

MEMORANDUM

TO: K J. Kiecolt  
Sara McDonough

FROM: Carmen Green 

SUBJECT: **IRB Exempt Approval:** "Assessing Shifting Racial Boundaries: Racial Classification of Biracial Asian Children in the 2000 Census", IRB # 09-612

I have reviewed your request to the IRB for exemption for the above referenced project. The research falls within the exempt status. Approval is granted effective as of August 11, 2009.

As an investigator of human subjects, your responsibilities include the following:

1. Report promptly proposed changes in the research protocol. The proposed changes must not be initiated without IRB review and approval, except where necessary to eliminate apparent immediate hazards to the subjects.
2. Report promptly to the IRB any injuries or other unanticipated or adverse events involving risks or harms to human research subjects or others.

cc: File  
Department Reviewer: Theodore D. Fuller