Dropping Out of High School: the Effects of Living in Non-traditional Families *

Chunyan Song

Arizona State University

and

Mary Benin

Arizona State University

ABSTRACT

We use data from the National Education Longitudinal Study (88) to examine the effects of family structure and the interaction effects between family structure and immigration status in the prediction of dropping out of high school. We explore how these effects might be explained by variation within students' family capital and school engagement. Our study differs from previous studies by applying event history analysis with standard errors corrected for clustered sampling to provide an optimal analysis design for studying high school dropout behavior. Our study has three major contributions to the existing literature on high school drop out: 1) Children from single-mother families are doing better than children from single father and stepparent families, which is consistent with the evolutionary perspective on family structure. The disadvantage of living in single mother families compared to two biological-parents families is mainly due to differences in family capital. 2) High school students are not negatively impacted by a parental divorce or separation, but are hurt by their parent marrying, remarrying or starting a cohabiting relationship during the high school years. 3) Within both stepmother and stepfather families, having foreign-born parents exhibits a protective effects against the odds of dropping out of high school.

Introduction

Paths to socioeconomic mobility are largely shaped by educational attainment. Students who drop out of high school face severe disadvantages in their future socioeconomic well-being (Duncan and Duncan, 1968). Studies have consistently documented that the high school drop out rate is higher among children from non-traditional families than children from intact families (McLanahan and Sandefur, 1994). In the past few decades, the demography of American families has gone through great changes in both family structure and race/ethnic composition. Fewer households nowadays are composed of children living with both biological parents. The US has also witnessed a rapid increase of immigrant families from Asia and Latin America. The children of immigrant families are the fastest growing group of children under age 15 in the United States (Board on Children and Families, 1995). Compared to children born to native-born parents, children from immigrant families have a disadvantage in home resources but an advantage in the optimism of parents (Kao and Tienda, 1995). This raises an important question: are immigrant children and children of immigrants living in non-traditional families more likely to drop out of high school than their counterparts born to native parents? In this study, we use the National Education Longitudinal Study (NELS: 88) to examine the interaction effects of generation status and family structure on the odds of dropping out of high school.

In the past quarter of the century, the structure of American families has become more diversified than ever before (Teachman et al, 2000). There has been a retreat from early marriage, and a retreat from marriage altogether among Blacks. Meanwhile, cohabitation and divorce have increased dramatically. About half of today's marriage is estimated to will dissolve (Cherlin, 1992). Remarriage following divorce is also more common, and nearly one half of current marriages involve a second or higher order marriages. The change in family structure has

had major implications for the settings of childbearing and childrearing. Nearly one third of infants today are born to unmarried mothers (McLanahan and Sandefur, 1994). More than one million children experience parental divorce every year, and about 40% of all children will experience parental divorce before reaching adulthood (Bumpass, 1990). Existing literature finds that children who grow up in a household with other than two-biological parents are worse off, on average, than children who grow up in a household with both of their biological parents, regardless of the parents' race or educational backgrounds (McLanahan and Sandefur, 1994). They are twice as likely to drop out of high school, twice as likely to have a child before age twenty. A growing body of literature indicates that change in childhood living arrangements is also detrimental to the well-being of children (Teachman et al, 2000).

However, little is know whether non-traditional family structures affect children born to immigrants the same way as children born to native-born parents. If immigrant parents, divorced or not, are selective of optimistic individuals (Kao and Tienda, 1995), we would expect that children born to immigrant parents would benefit from high parental expectations and would have lower drop out rate than children born to native-born parents when family structure is controlled. However, immigrant families are usually disadvantaged in terms of family income and other resources at the first place, and divorced individuals are especially selective of people who are poor economic providers and incompetent parents (Cherlin et al., 1991). Following this perspective, We would expect that children living with divorced immigrant parents would be more likely to drop out of high school than children with native-born parents. To test these hypotheses, we use event history analysis to examine the hazard of dropping out of high school among students of different generation status and individuals from different family structures. We expect that the interaction effect between family structure and immigration status would be

4

explained away by different family backgrounds and academic performance and school activities.

Theories and Existing Literature

Family Structure: Theories offers four perspectives on why children from non-traditional families are more likely to drop out of high school. The family socialization perspective emphasizes the essential role of parenting in shaping children's lives (Baumrind, 1980). It views dropping out of high school as a result of poor parenting. Father-absence reduces the family's ability to provide supports and control to children (Thomson et al., 1994). Children are better off living in any type of family with two adults consisting either biological or stepparents. The economic theory views that SES success is a function of human capital (Becker, 1981). Two parents are better economic resource providers than one and biological parents spend more on children than stepparents. Children who grow up in single-mother families will have the lowest attainments. The selection bias perspective views that divorced couples are selective of those incompetent parents (Cherlin et al., 1991). Children from non-traditional families don't do well not because parents divorce but because of incompetent parents. In this perspective, children living in single-parent, and stepparent households are more likely to drop out of school than children living with two-biological parents. The evolutionary psychology perspective distinguishes single mother families from stepfamilies and single father families (Emlen, 1997). This perspective views the mothers as more important than father in determining children's fates, and places special importance on biological relationships. The well-being of children is of greater interest to the mother than to the father. Children will benefit from presence of the biological father, but children from alternative families will do better raised by a single mother than a single father. Children from single mother families will also have advantages over those

from stepfather/biological mother families. The stepparent's concern with his own reproductive fitness is in competition with the stepchildren for the mother's resources (Daly and Wilson, 1996). Therefore, the evolutionary psychology perspective will lead us to expect that children from single mother families will be less likely to drop out of high school than children from stepfamilies and single father families.

Empirical research seems to support the evolutionary psychology perspective. Although children who grow up in mother-only families are more likely to drop out of school and have lower educational attainment (Cherlin, 1992), the difference between children in single-mother families and intact families usually disappears after controlling for the family socioeconomic status. Using four large nationally representative surveys, Biblarz and Raftery (1999) found that children from single-father families and stepfamilies do worse in school than children from two-biological parent and single-mother families. This effect of family structure on children's socioeconomic success has been constant over thirty years.

Change in Family Structure: Changes in the parental structure of the home due to a parent leaving or a new step-parent arriving can be very stressful, especially for teenagers (Garmezy 1983; McLanahan 1985; Wu & Martinson 1993). Separation or divorce can mean less parental supervision and less contact with the departing parent. Marriage, remarriage, or cohabitation brings a new adult into the household, which can lead to conflict, especially if the teen is not accepting of, or enamored with the new parent. Further, the new spouse or partner will almost inevitably take some of the resident parent's attention from the teen. Thus, the teen may feel a loss of parental encouragement, support, and supervision. Even when the change in family structure is welcomed by the teen, transitions can be stressful do to the interpersonal adjustments involved. Research has found that frequent changes in household structure cause

some adolescents to engage in impulsive, rebellious actions and also increase the likelihood of early motherhood or marriage (McLanahan 1985; Wallerstein and Blakeslee 1989; Wu & Martinson 1993)

Immigration: The effects of family structure on children's academic outcomes apply to immigrant children and children of immigrants as well as non-immigrant children. Children who come from intact immigrant families in which both parents are present have higher grade point averages, higher aspirations, and lower dropout rates than do children who are raised in stepfamilies or single-parent families (Rumberger and Larson, 1998). Compared to children born to native parents, first and second generation children may be under greater influence of immigrant culture since their parents have been in the United States for a shorter period of time. Classical assimilation theory assumes that there is a natural process by which diverse ethnic groups gradually desert old cultural and behavioral patterns and adapt into the core culture. From the classical assimilationist standpoint, ethnic traits (language, culture, etc.) act against the assimilation of immigrants into the American mainstream (Gordon, 1964). Native birth or arrival at a young age, longer U.S. residence, and residence outside ethnic enclaves should contribute to successful adaptation (Alba and Nee, 1997). Therefore, classical assimilation theory would lead us to expect to find the greatest differences in rate of high school drop out between first generation immigrants and native-born and least or no difference among later generations.

In contrast to the one-path adaptation in the classical assimilation theory, the segmented assimilation theory argues that there are three types of adaptation among contemporary immigrants. Some immigrants fit the classic assimilation model with higher levels of acculturation leading to higher levels of integration into the white middle-class; some immigrants assimilate into the underclass of the host society; while other immigrants achieve high

socioeconomic status while preserving their ethnic values (Portes and Zhou, 1993). The segmented assimilation model maintains that the generational pattern of schooling is not necessarily linear. The educational trajectory followed by an immigrant group depends on the resources available to youth through their families and the communities in which they reside (Portes and Zhou, 1993). Kao and Tienda (1995) predict that second generation immigrant students will have more positive academic outcomes due to the dual benefits of English language (being born in the U.S.) and of having foreign-born parents who have high expectations for their children.

Empirical studies on high school drop out rates between children of different generations yield mixed results. Some studies demonstrate support for classical assimilation theory. The proportion of Mexican Americans completing high school increases with successive generations of U.S residence (Zsembik and Llanes, 1996; Rong and Grant, 1996; Landale et al, 1998). Immigrant Mexicans are more likely to be high school dropouts than are 3rd generation students of native-born parents even after controlling for other factors (Landale et al, 1998). Other studies yield different patterns between generation status and high school drop out rate. Driscoll and Trends (1999) found that found that second generation Hispanic students were less likely to drop out of high school than first and third generation youth net of individual and family resources. In another study, second generation students do not differ significantly from third generation students in high school drop out rate (White and Kaufman, 1997).

Family Resources and School Engagement: One reason for differences in high school drop out rates might be variations in family capital. The influence of family income, number of siblings, parental involvement, and educational expectations has been analyzed in both the educational and social stratification literatures. Low socioeconomic status is not only related to

lower parental educational expectations for their children but also directly contributes to poor educational outcomes (Kao, 1995). Unemployment and low-status occupational positions among single mothers account for most of the educational disadvantages of children living in single-mother families (Biblarz and Raftery, 1999). Students with more siblings are more likely to leave school (White and Kaufman, 1997). High parental aspirations and involvement enhance children's academic achievement and protect against high school dropout (Driscoll and Trends, 1999; Hao and Bonstead-Bruns, 1998). Immigrant parents have higher expectations for the educational attainment of their children because the advancement and success of their children was often an important reason for coming to the United States (Kao and Tienda, 1995).

School engagement plays an important role in the propensity of students to leave a school. School engagement is influenced by both educational performance and school membership. Higher academic performance increases students' bonding at school. Poor academic achievement has consistently been one of the strongest predictors of dropping out of high school (Rumberger, 1983). The initial antecedent to withdrawal is usually the lack of participation in school activities (Maguin and Loeber 1996). We hypothesize that academic performance and participation in school activities would explain part of the difference in the drop out rate between children from different family structures and immigration statuses.

Academic Environment: Student's academic aspirations are not only influenced by their parents, but by their peers as well (Buchmann & Dalton, 2002). If a school is dominated by children from low income families, the average student's educational attainment expectation may be lower than in school dominated by middle class children. Having peers with low educational expectations may, in turn, increase the chances that an adolescent drops out of school. To

9

measure the average social class of the students at the school in 1988, we use the variable lunch, which stands for the percent of students at the school having free lunch.

Research Method and Analytic Approach

Data from the National Education Longitudinal Study (NELS: 88), which is based on a nationally representative sample of high school students are used in this study. The 1988 eighth grade cohort was followed at two-year intervals as the students passed through high school and continued into post-secondary education. The data includes surveys from students, parents, teachers and school administrators. It also over-sampled some minority and immigrant groups and has detailed information about respondents' family, and school backgrounds. The NELS:88 data are particularly useful for this analysis because dropping out of high school is a long-term process that can only be understood by comparing comprehensive influences through longitudinal data from early school years until high school completion or drop out..

The sample size of the study is 25,060, including 1,637 Asian Americans, 3,352 Blacks, 3,121 Hispanics, and 16,950 Whites. The study excludes Native Americans and those with missing data on race, as well as those who had dropped out prior to eighth grade, dropped out with no information on year or dropout, and those who were not available in the base year sample.

The dependent variable in the study is the odds of dropping out of high school between 1988 and 1992. During the four-year observation period, 1,834 (15%) students dropped out of high school. The rest of the respondents either graduated or were censored at the end of the observation period. Once students graduated or were censored, they no longer contributed person-years of risk to the analysis. The year that respondents report dropping out of high school is the measure of time. From 1998 to 1992 when students were at 12th grade, there are only four

duration years, which should result in many ties in the data. In the case of many ties, methods used in Cox models (such as Breslow's method) are often a poor approximation (Allison, 1995: Pp211). The discrete-time method has the advantage over Cox model by not relying on approximations and the computations are quite manageable with large data sets as well, thus discrete time-models are used. Person-years of exposure to the hazard of dropping out of high school are the actual units of analysis.

Except for the time-dependent variables, married, and divorced, the rest of the predictors are all from the 1988 wave base year study. Married and divorced were both lagged one year. Divorced includes parents separated or divorced during the year prior to the current one and married includes resident parents who married, remarried or started a marriage-like relationship the year before the current one. These variables were based on the resident parent's report.

The mean and standard deviations of all variables are presented in Table 1. In the base year student panel of the study, 8th graders were asked whether they are living in the same household with father/mother/male guardian/female guardian/siblings/relatives. 15,507 respondents lived with both biological parents in 1988, accounting for 65% of the sample. There are 561 (3%) stepmom, 2,515 (11%) stepdad, 3,807 (15%) single-mother, 600 (3%) single-dad, and 714 (3%) other families. We also include two time-varying variables measuring change in family structures. Between 1988 and 1992, 15,065 (60%) of students in our sample experienced a parental divorce or separation. Parents of 15,071 (60%) of the students also married, remarried, or began living in a marriage-like relationship.

Parents' reports of their and their child's place of birth are used to determine the generation status of the child. The coding of generation status is: 1) first generation if the child was born outside U.S. 2) second generation if the child was born in the U.S but to at least one

foreign-born parent. 3) third and above generation if the child was born in the U.S to native-born parents. There are 345 (1.0%) cases belongs to the first generation, 3,650 (12.7%) second generation, and 17,870 (86.4%) cases third and above generation.

One reason for differences in high school completion rates between different family structures and generation status might be the variations in the family backgrounds of these groups. The influence of family socioeconomic status (SES), number of siblings, parental involvement, and parental education expectations has been analyzed in both the educational and social stratification literatures. SES was conceptualized and calculated by NELS: 88 researchers and reflects a composite score composed of five separate measures including family income, parents' educational levels, and parents' occupations. Responses to each of these five items were standardized to a mean of 0 and a standard deviation of 1 (mean –0.10, standard deviation .79). Students' report on how many siblings they have are used to measure number of siblings, which ranges from 0 to 6 with a mean of 2.30. Parental involvement is the mean of a composite score based on answers to three questions. Respondents were asked how often they discussed school programs, school activities, and things studied in class with their parents. Responses for each item were coded 1 = never, 2= sometimes and 3 = often. Summing all three items gives the parental involvement a possible range from 3 to 9 with higher score representing higher parental involvement (mean=7.14, std=1.52). In the parent survey, parents were asked, "How far in school do you expect your 8th grader to go?" The responses to this question are: less than high school; high school graduation; vocational, trade or business school; attend college; college graduation; higher school after college. In this analysis, parental expectation is further collapsed into two categories since few parents tend to expect less than college for their children: 1= above

college expectation, 0 = college graduation or less. In this sample 59% of parents expect their high school student to at least complete college.

Peers can influence whether a respondent stays in or drops out of school. Students from low income families are more likely to drop out of school, and a school dominated by low income students may not have strong norms against dropping out. Lunch is our measure of peer SES. It is the percent of students at the school having a free lunch and ranges form 1=low to 3=high. The mean is 2.04 with a standard deviation of 9.52.

Schools play an important role in creating the conditions that increase or decrease the propensity of students to leave a school. Social bonding at school is influenced by school membership and educational engagement. Students' academic performance, and school activities are used as proxies for school engagement. The present study uses the composite standard test scores of reading and math from 1988 student survey. This variable is a continuous variable, ranging from 30.7 to 75.8 (mean 50.67, std 9.91). The variable school activity combines responses to the following question on seven school activities: Have you or will you have participated in any of the following school activities during the current school year, either as a member, or as an officer: science fair, school varsity sports, school intramural sports, cheerleading, band or orchestra, chorus or choir, dance? Answers to the questions on each activity are coded 1=yes, 0=no. We combine answers to all seven activities. School activities range from 0 to 7 with a mean of 2.01 and std =1.33.

(Table 1 About Here)

Results

Table 2 presents estimates of the effects of family structure, immigration status, family, peer and school factors on the rate of dropping out of high school. The coefficients presented are

Table 1. Descriptive Statistics of Variables Used in the Analysis.

Demographic Backgrounds	Mean	SD	Min	Max
Dropout Rate	.15	0.29	0	1
Race/Ethnicity				
Asian	.04		0	1
Black	.13		0	1
Hispanic	.10		0	1
White	.73			
Male	.50		0	1
Family Structure				
2-parents	.65		0	1
Single-mother	.15		0	1
Single-father	.03		0	1
Stepmom	.03		0	1
Stepdad	.11		0	1
Other	.03		0	1
Immigration Status				
Foreign-born Parents	.14		0	1
Native-born Parents	.86		0	1
Family background				
Socioeconomic status	-.10	.79	-2.97	2.56
Number of Siblings	2.30	1.60	0	6
Parental involvement in learning activities	7.14	1.52	3.00	9.00
Parental Education Expectation				
College graduation or above (vs. other)	.59		0	1
School % Free Lunch	2.04	.77	1	3
School Engagement				
Composite test scores	50.67	9.91	30.71	75.81
School activities	2.01	1.33	0	7.0

a: Source: National Education Longitudinal Survey 1988-1992.

b. Total N=25,060 d. weight=f2pnlwt

Table 2. Multilevel Hazard Model Estimates of the Relationship Between Immigration, Family Strucuture, and High School Drop Out

	Model 1	Model 2	Model 3	Model 4	Model 5
Year (vs.1988-1989)					
1989-1990	7.01 ***	6.36 ***	6.44 ***	6.72 ***	6.75 ***
1990-1991	12.21 ***	11.80 ***	12.72 ***	12.89 ***	13.60 ***
1991-1992	31.73 ***	30.31 ***	36.75 ***	35.09 ***	39.59 ***
Demographic Backgrounds					
Race/Ethnicity (vs. White)					
Asian	.54 ***	.54 ***	.64 *	.57 **	.65 *
Black	1.14	1.14	.83	0.62 **	.63 **
Hispanic	1.87 ***	1.87 ***	1.19	1.08	.99
Male (vs. female)	.95	.95	.92	.87	.90
Base Year Family Structure (vs. 2-parent)					
Single-mother	2.26 ***	2.17 ***	1.58 ***	1.86 ***	1.59 ***
Single-father	2.68 ***	2.75 ***	2.56 ***	2.25 ***	2.4 ***
Stepmom	3.35 ***	3.35 ***	2.68 ***	3.11 ***	2.78 ***
Stepdad	2.76 ***	2.81 ***	2.37 ***	2.45 ***	2.31 ***
Other	5.67 ***	5.20 ***	3.92 ***	4.20 ***	3.74 ***
Change of Family Structure in Perious Year					
Parents Divorced/Separated	.89	.87	1.00	1.15	1.14
Parents Remarried/Cohabited	3.05 ***	3.23 ***	2.75 ***	2.74 ***	2.62 **
Immigration Status (vs. 3+ generation)					
1st generation		1.17	1.04	.94	.92
2nd generation		.82	.75 *	.89	.78
Family Backgrounds					
Socioeconomic status			.56 ***		.65 ***
Number of Siblings			1.10 ***		1.10 ***
Parental involvement in learning activities			.82 ***		.86 ***
Parental Education Expectation			.42 ***		.55 ***
College graduation or above (vs. other)					
% Students Receiving Free Lunch (low-high)				1.29 ***	1.10
School Engagement					
Composite test scores				.92 ***	.94 ***
School activities				.89 ***	.92 **
F Value	61.92	50.15	50.37	58.92	51.90

a: Source: National Education Longitudinal Survey 1988-1992.

b. *p<.1 **p<.05 ***p<.01

odds ratios. A coefficient greater than 1.0 represents a positive effect on the odds of dropping out, and a coefficient less than 1.0 represent a negative effect.

(Table 2 about here)

Model 1 in Table 2 contains family structure variables, changes in family structure variables, and controls for race/ethnicity, sex, and year.   All family structure variables are significant, with the children from single-parent families and stepfamilies having a higher drop out rate than children from two-parent families. The hazard of dropping out is especially high for children from stepmother families, 235% higher than that for children in intact families. However, the greatest odds of dropping out are for children living with neither biological parent. Their odds are 467% higher than children living with two-parent families. While having a parent get married, remarried, or starting a cohabiting relationship more than triples an adolescent's risk of dropping out, having a parent get divorced does not increase the odds. This suggests that the adjustment to a new adult in the household is more difficult for teens than the loss of a parent from the household. Asians have a significantly lower risk of dropping out of school than Anglos controlling for family structure, while Hispanics have a greater risk. Blacks do not differ in risk than Anglos, controlling for family structure and sex. Males and females have approximately equal risks of dropping out.

In Model 2, the effects of generation status are added. In this model, generational status is not significant, and all other coefficients are virtually unchanged. In Model 3, the family background effects are added.   All of the family background variables contribute significantly to the prediction of high school drop out. Children from higher SES families, and children whose parents are more involved in learning activities, and whose parents have higher expectations for

14

Figure 1. Probability of Dropping Out of School by Family Type
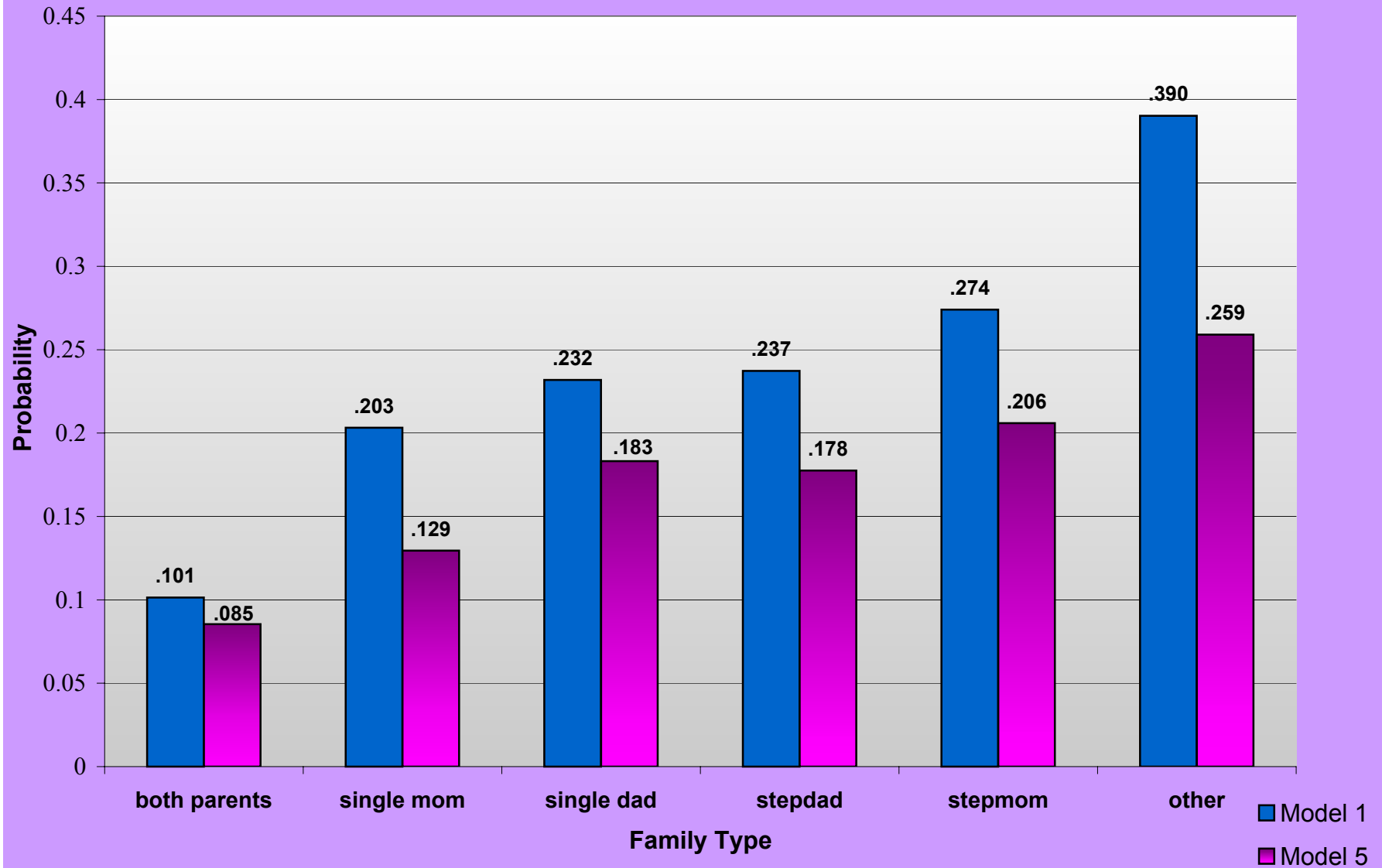
children's educational attainments are less likely to drop out of school than other children. Further, children with more siblings are more likely to drop out of school.

Controlling for these family background variables, Hispanics are no longer more likely to drop out of school than Anglos, while Asians are still significantly less likely to drop out of school. Controlling for family background, those of the second generation have significantly lower odds of dropping out of school than those of the third or later generations. This result is consistent with the theory of segmented assimilation, in which the children are advantaged by the combination of being born in this country and being fluent in English while having foreign-born parents, who may focus more heavily on educational attainment for their children than American born parents do.

Model 4 includes variables regarding school engagement and peers while removing the family background variables. Going to a school with a higher percent of students receiving free lunches significantly increases a student's chance of dropping out of school. The more activities that a student is involved in and the higher their test scores, the lower are their chances of dropping out. It is interesting that when the peer and school effects are controlled, blacks have a significantly lower chance of dropping out of school than Anglos. All family structure effects and the effect of parents remarrying are still statistically significant in this model.

In Model 5, family background effects are added back in. Model 5 includes all main effects. In this model, we see that both Asian and blacks are significantly less likely to drop out than Anglos, while Hispanics are not. Asians have been significantly less likely to drop out in all models, and the addition of control variables has had little effect. Blacks were not significantly less likely to drop out than whites until we added the effects of peers and school engagement. Controlling for how well the students are were doing in school, how involved they were in

school activities and how many of their classmates received free lunches (all measured at the eighth grade level), blacks are significantly less likely to drop out than whites.

In Model 5 with all main effects, children living with single moms, single dads, dads and step-moms, moms and step-dads, and other family forms are all significantly more likely to drop out of school than children living with two parents. There are variations within these alternatives, however, with children living with neither mother nor dad most likely to drop out, and children living with single mothers doing better than any other form than the two-parent form. Having a parent marry, remarry, or begin a new cohabiting relationship is associated with an increased dropout rate for adolescents, but having parents separate or divorce is not.

All family background effects are statistically significant and changed very little by the inclusion of the school and peer variables. Children from higher SES families with less siblings, and with parents who were more involved parents and who held higher educational expectations when their children were in eighth grade are less likely to drop out than other children. The number of 8th grade peers receiving free lunch is not significant in the final model, but higher test scores and more involvement in school activities in the eighth grade is still significantly related to the odds of dropping out.

Before discussion Model 6, which adds interaction terms between foreign-birth of parents and family structure, we add Figure 1that demonstrates the impact of family structure before and after controls for family background, peer SES, school engagement and immigration status. It is clear from the figure that not only is living with a single mom the second best option to living with two parents, but that much of the disadvantage of living with a single mom is removed when we control for family background effects. By comparison, there is little difference in the negative effects of living with single dads whether or not other variables are controlled. It is also

important to notice that living with a father and stepmom is slightly worse before and after controls than living with a single father, and living with a mom and stepdad is significantly worse than living with a single mom, especially after controlling for family background.

(Figure 1 about here)

Model 6 adds the interaction variables and between family type and parental foreign birth. We combine first and second generation immigrants into foreign-born parents (14%) for two reasons. One reason is that there are very few second generation immigrants (2%). The other reason is that previous studies have shown that parental immigrant status is more influential than the immigrant status of youth in determining academic performance (Kao and Tienda, 1995). The interaction between having foreign-born parents and family type is significant for three groups: stepmother, stepfather, and other family types. In each of these family types, the odds of dropping out for children with foreign-born parents is lower than children with native-born parents. This means that controlling for family SES, ethnicity, school engagement and the percent of students on the free lunch program, that coming from a stepfamily or family headed by neither the father nor mother is significantly worse when the parents are U.S. born than foreign born. Thus, it appears that some of the negative stigma or problems that occur within stepfamilies, are less likely to occur when at least one of the parents is foreign born. We do not know whether the stepparent is foreign born or U.S. born. However, from the significant interaction effect of foreign-born parents with both step-mothers and step-fathers it is clear that having a foreign born parent is a protection against the negative effects of stepfamilies. In Figure 2 we plot the differences from model 6 by foreign versus U.S. parents. Not only are the probabilities lower for foreign step father and step mother families than U.S., but the step-mother families have the lowest odds of dropping of all family types.

Figure 2. Probability of Dropping Out by Family Type and Parent's Immigration Status
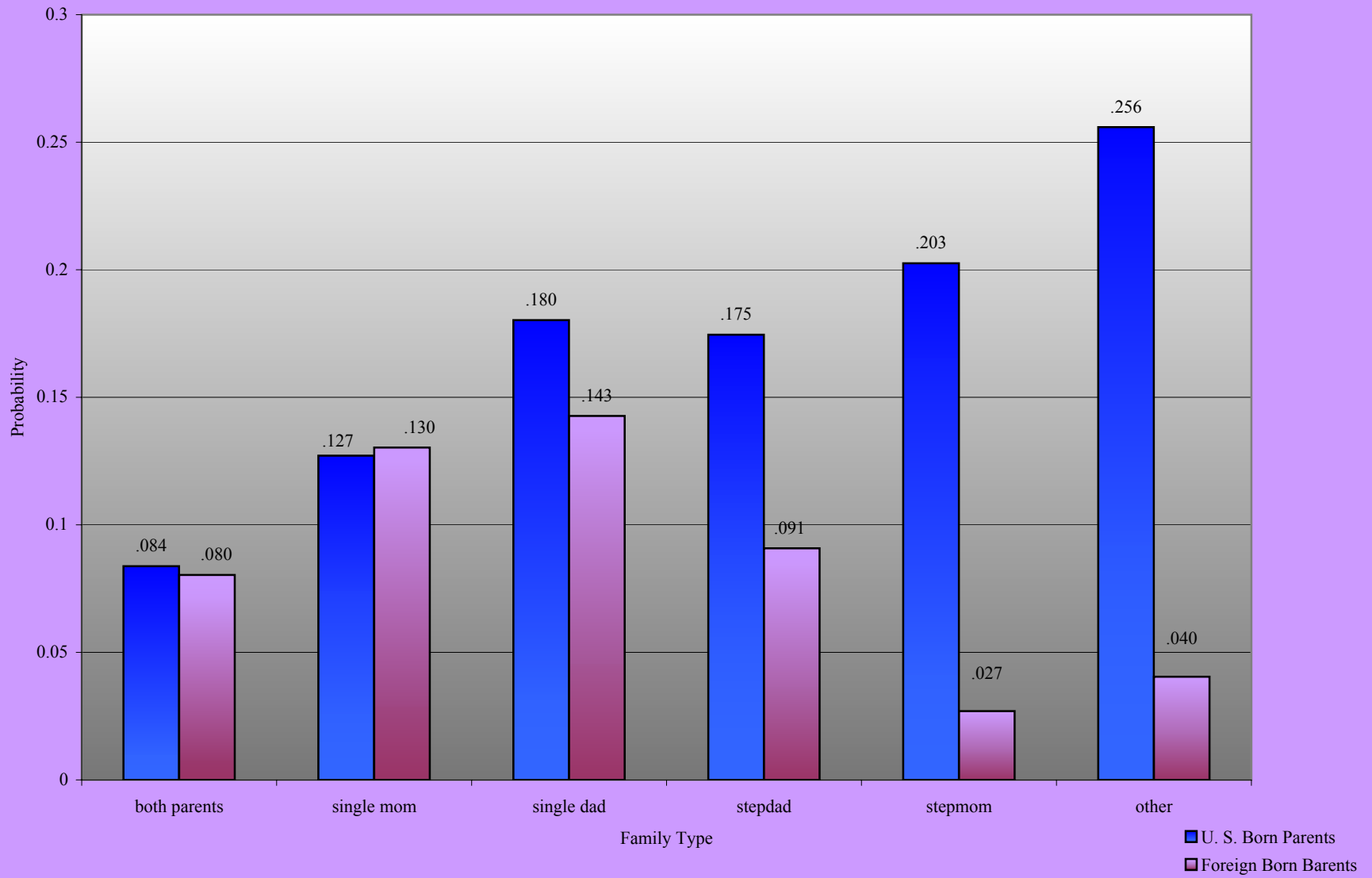
Discussion

The effects of family structure and immigration status on students' socioeconomic outcomes have been studied extensively in existing literatures. However, little is known how family structure and immigration status interact in predicting the propensity of dropping out of high school. The primary focus of this study is to fill the gap by examining the interaction effects between family structure and immigration status and how this interaction effects might be explained by variation within students' family and school engagement.

Overall, the study supports the evolutionary psychology perspective on family structure measured when the children were in eighth grade and children's outcomes in high school. Children from non-traditional families are at higher odds of dropping out of high school than children from two-biological parent families. Children from single-mother families are doing better than children from single father families, which is consist ant with the evolutionary perspective which posits that biological mothers have a greater stake in their children than biological fathers. Further, children from single parent families are doing better than children from stepfamilies, which is again consistent with evolutionary perspective which states that the stepparent has little investment in the non-biological child and competes with the child for the biological parent's attention. Finally, children living with neither biological parent have the worst outcomes in terms of dropping out, which would be predicted by the evolutionary perspective, as no adult in the household has a strong biological investment in the child.

Lower family financial and social resources and lower school engagement accounts for part, but not all the relationship between family type and child outcome. Controlling for family financial resources makes the most difference to families headed by single mother and neither parent households.

A major contribution of this study is the ability to examine the impact of change in family structure over time. Our family type is based on family structure in eighth grade. However, we also controlled for changes in the family structure. Sixty percent of the children lived in households that experienced a separation or divorce during the high school years. Sixty percent also experienced a marriage, remarriage, or start of a cohabiting relationship of their custodial parent during this time. In every model, there is a strong negative impact of parents marrying, remarrying, or starting cohabiting. Depending on the controls, the odds of children dropping out of school are between 2.6 and 3.2 times as high if their parent experienced a transition into a new relationship than if they didn't. In contrast, there was no effect of parental separation or divorce on the odds that children drop out of school. This has important policy implications. Both the academic and popular press have noted the many studies which report that children do better if their parents do not divorce. Our results certainly also support that since the two parent home in Table 2 and Figure 1 is associated with the lowest rates of dropout. However, less has been published about the negative effects of parents remarrying. At least with respect to dropping out of school, high school students are not negatively impacted by a parental divorce, but are hurt by their parent marrying, remarrying or starting a cohabiting relationship during the high school years.

One of the most important findings of the study is the interaction effect between family structure and immigration status. Within both stepmother and stepfather families, having foreign-born parents exhibits a protective effects against the odds of dropping out of high school. The advantage of living with a foreign-born parent in a step-family household is not accounted by the higher family financial and social resources provided by the stepparent. This finding partially supports the hypothesis on the immigrant optimism perspective. Immigrant stepparents

are doing a better job raising their children than native-born parents. The advantages of having immigrant parents go beyond higher parental expectations and involvement. It might be that the optimism and strong work ethic of immigrant parents makes them better role models than native-born parents.

This study has important policy implications in family and education. Students from non-traditional families are disadvantaged in family resources. Programs should be designed to help single-mothers and stepparents to be better providers for their children. Qualitative studies should also be carried out to identify what unique qualities immigrant stepparents have so that other stepparents can learn from them. Also, children from non-traditional families need additional support and resources to improve both their school membership and academic performance. Schools should provide more programs that cater to the special interests and needs of these students.

One caution in the interpretation of our family type by foreign parent interactions is that we have only 56 immigrant stepmother families, 277 stepfather families and 103 immigrant families not headed by a parent. While our results regarding the differences between U.S. born and foreign born stepfamilies and families not headed by a parent are statistically significant, it would be useful to replicate these results in another large, nationally representative data set.

References

Alba, R. and V. Nee 1997. "Rethinking Assimilation Theory for a New Era of Immigration." *International Migration Review* 31(4):826-65.

Alison, Paul D. 1995. *Survival Analysis Using the SAS Program: A Practical Guide*. Cary, NC: SAS Institute.

Baumrind, Diana. 1978. "Parental Disciplinary Patterns and Social Competence in Children." *Youth and Society* 9:239-75.

Becker, Gary S. 1981. *A Treatise on the Family*. Cambridge, Masachusetts/London, England: Harvard University Press.

Biblarz, Timothy J. and Adrian E. Raftery. 1999. "Family Structure, Educational Attainment, and Socioeconomic Success: Rethinking the 'Pathology of Matriarchy.'" *American Journal of Sociology*, 105: 321-365.

Board on Children and Families. 1995. "Immigrant Children and Their Families: Issues for Research and Policy." *Future of Children*, 5(2):72-89.

Buchmann C, Dalton B. 2002. "Interpersonal influences and educational aspirations in 12 countries: The importance of institutional context." *Sociology of Education*: 75 (2): 99-122

Cherlin, Andrew, Frank F. Furstenberg, P. Lindsay Chase-Lansdale, Kathleen Kiernan, Donna Ruane Morrison, and Julen Teitler. 1991. "Longitudinal Studies of Effects of Divorce on Children in Great Britain and the United States." *Science* 252:1386-89.

Cherlin, Andrew. 1992. *Marriage, Divorce, Remarriage: Revised and Enlarged Edition*. Cambridge, Masachusetts/London, England: Harvard University Press.

Day, Martin, and Margo I. Wilson. 1996. "Violence against Stepchildren." *Current Directions in Psychological Science* 5:77-81.

Driscoll, Anne K. and Child Trends. 1999. "Risk of High School Dropout Among Imigrant and Native Hispanic Youth." *International Migration Review*. 33(4): 0857-875.

Duncan, Berveley, and Otis Duncan. 1968. "Minorities and the Process of Stratification." *American Sociological Review*, Vol. 33, No. 3: 356-64.

Emlen, Stephen T. 1997. "The Evolutionary Study of Human Family Systems." *Social Science Information Sur Les Sciences Sociales* 36:563-89.

Garmezy, Norman. 1983. "Stressors of Childhood." Pp. 43-84 in *Stress, Coping, and Development in Children,* edited by N. Garmezy and M. Rutter. New York: McGraw Hill.

Gordon, M.M. 1964. *Assimilation in American Life*. New York, Oxford University Press.

Hao, L. and M. Bonstead- Bruns. 1998. "Parent-child differences in educational expectations and the academic achievement of immigrant and native students." *Sociology of Education* 71 (3): 175-98.

Kao, Grace, and Martha Tienda. 1995. "Optimism and Achievement: the Educational Performance of Immigrant Youth." *Social Science Quarterly* 76(1): 1-19.

Kao, Grace. 1995. "Asian Americans as Model Minorities? A Look at Their Academic Performance." *American Journal of Education* February: 121-159.

Landale, Nacy S., R.S. Oropesa, and Daniel Llanes. 1998. "Schooling, Work, and Idleness among Mexican and Non-Latino White Adolescents." *Social Science Research* 27:457-480.

Lopez, David E., 1996. "Language, Diversity and Assimilation." Pp. 139-63 in *Ethnic Los Angeles*, edited by Roger Waldinger and Mehdi Bozorgmehr. New York: Rusell Sage Foundation.

Maguin, E., and Loeber, R. 1996. "Academic Performance and Delinquency". *Crime and Justice: A Review of Research* 20:145-264.

McLanahan, Sara. 1985. "Family Structure and the Reproduction of Poverty." *American Journal of Sociology* 90:873-901.

McLanahan, Sara, and Gary Sandefur. 1994. *Growing Up with A Single Parent*. Cambridge, Masachusetts/London, England: Harvard University Press.

National Research Council. 1998. "From Generation to Generation: The Health and Well-being of Children". in *Immigrant Families*. Ed. D.J. Hernandez, and E. Charney. Washington, DC: National Academy Press.

Portes, A. and M. Zhou. 1993. "The New Second Generation: Segmented Assimilation and Its Variants among Post-1965 Immigrant Youth." *Annals of the American Academy of Political and Social Science* 530: 74-98

Rong, Xue Lan, and Linda Grant. 1992. "Ethnicity, Gneration, and School Attainment of Asians, Hispanics, and Non-Hispanic Whites." *Sociological Quarterly* 33: 625-636.

Rumberger, Russell, and Katherine A. Larson. 1998. "Student Mobility and the Increased Risk of High School Dropout." *American Journal of Education*. 107: 1-35.

Rumberger, Russell. 1983. "Dropping out of high school: the influence of race, sex, and family background." *American Educational Research Journal* 20: 199-200.

Teachman, Jay D. and Lucky M. Tedrow and Kyle Crowder. 2000. The Changing Demography of America=s Families. *Journal of Marriage and the Family*, 62(4): 1234-1246.

Thomson, Elizabeth, Thomas L, Hanson, and Sara S. McLanahan. 1994. "Family Structure and Child Wellbeing: Economic Resources vs. Parental Behaviors." *Social Forces* 73:221-42.

Upchurch, Dawn M. and James McCarthy. 1990. The timing of a first birth and high school completion. *American Sociological Review* 55: 224-34.

Wallerstein, Judith S. and Sandra Blakeslee. 1989. *Second Chances: Men, Women, and Children a Decade after Divorce*. New York: Ticknor and Fields.

Warren, John Robert. 1996. "Educational Inequality among White and Mexican-orinin Adolescents in the American Southwest: 1990." *Sociology of Education* 69:142-58.

White, Michael J., and Gayle Kaufman. 1997. "Language Usage, Social Capital, and School Completion among Immigrants and Native-Born Ethnic Groups." *Social Science Quarterly* 78 (2): 385-98.

Wu, Lawrence L. and Brian B. Martinson. 1993. "Family Structure and the Risk of a Premarital Birth." *American Sociological Review*, 58: 210-232.

Zsembik, Barbara A., and Daniel Llanes. 1996. "Generational Differences in Educational Attainment among Mexican Americans." *Social Science Quarterly* 77 (2): 363-74.