Cohabitation and Children's Developmental Well-Being in Latino Families

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Prepared for the Annual Meetings of the Population Association of America

New York, NY
March 29-31, 2007

Cohabitation, an increasingly common type of union formation, is often accompanied by the birth of a child among low-income populations. However, studies have only recently begun to consider the well-being of children born into cohabiting unions (see Manning 2002 for a review). Furthermore, fewer studies have considered the situation for *Latino* families. We propose to evaluate whether residing in a cohabiting family has a deleterious or positive effect or no effect on Latino children's developmental well-being relative to residing in other family structures. In particular, we focus on children of Latino foreign-born parents compared to children of Latino U.S.-born parents in order to assess whether assimilation over generations to the norms of cohabitation as a family form in the United States improves or worsens Latino children's developmental outcomes. We use data from three waves of a longitudinal study tracking low-income families' well-being in the post-welfare reform era. The data set includes a substantial number of immigrant-headed families and has sufficient sample size to allow us to look at Latinos separately by area of origin.

Background

Children in the United States whose parents cohabit demonstrate poorer developmental outcomes compared to children with married biological parents in terms of behavior problems (Nelson, Clark, and Acs 2001), education (Raley, Frisco, and Wildsmith 2005), early sexual initiation, and teen childbearing (see Smock and Manning 2004 for a review). Explanations include the observation that cohabiting couples tend to have lower income and less education than married couples (Manning and Lamb 2003; Manning and Lichter 1996); children in cohabiting families tend to experience more instability than children in married families(Graefe and Lichter 1999; Manning, Smock, and Majumdar 2004); children who live in a cohabiting union are less likely

than those in married unions to reside with both biological parents (Manning 2002), and cohabiting partners may engage in more conflict and demonstrate less commitment to one another (see Brown 2003; Stanley, Whitton, and Markman 2004).

The effect of cohabitation on children in Latino families, and in Latino immigrant families in particular, has received little attention (but see Nelson, Clark, and Acs 2001for evidence that Latino adolescents have poorer adjustment in cohabiting families compared to non-Latino adolescents). However, studies about Latino marriage and cohabitation suggest that differences in cultural norms about cohabitation, differences in family structure, and the pro-familial orientation of Latino families may cause the association between cohabitation and child development to be distinct from that in non-Latino white and African-American families.

In the United States, children of foreign-born Latinos live with both biological parents at rates similar to native-born non-Hispanic white children, and most foreign-born Latinos in a union are married rather than cohabiting. But in Latino immigrants' countries of origin, cohabitation (described as consensual unions or *uniones libres,* free unions) is a more common family form than in the United States. In Central America and the Caribbean, more than half of all unions are consensual unions. Even where cohabitation is considered relatively uncommon compared to much of Latin America, such as in Mexico, Chile, and Argentina, cohabitation rates hover around 20 percent, far exceeding cohabitation rates in the United States (see Rodriguez 2004 for an overview).

While cohabitating unions in all Latin American countries dissolve more frequently than do marriages, relative to the U.S., these cohabiting unions endure, providing a more stable context for conceiving, bearing, and rearing children. Thus *uniones libres* may represent an informal alternative to marriage rather than a prelude to marriage or "trial" marriage. Similar to

patterns in the U.S., cohabitation as an alternative to marriage is traditionally more common among those with less education and lower socioeconomic status (described as a dual nuptiality system by Castro Martin 2002).[1] To the extent that greater stability represents a more beneficial context for children's development, we expect that growing up in a long-term consensual union in Latin America may have some similarities to growing up in a marriage.

Given this distinctive context, we ask whether children raised in a cohabiting union where one or both partners is foreign-born are buffered from stressors typically associated with residing in a cohabiting household in the United States. We draw on segmented assimilation theory to develop our hypothesis that Latino children in low-income families with cohabiting, U.S.-born parents (or whose parents have resided in the United States since childhood)[2] will have poorer developmental outcomes compared to children of foreign-born cohabiting parents as a result of downward assimilation. Following Oropesa and Landale's (2004) hypothesis that disadvantaged Latino immigrants will experience downward assimilation culminating in withdrawal from the marriage market, we extend this framework to include Latinos' cohabitation experiences. In their recent work, Oropresa and Landale argue that Latino immigrants who enter the United States with low human capital and who have an unfavorable reception upon entry will experience downward assimilation, which will in turn result in poor economic prospects. Following on the theory that poor economic prospects lead to withdrawal from the marriage market (Oppenheimer and others), the authors argue that downward assimilation will lead to diminished marriage rates for the descendants of Latino immigrants. We hypothesize that a comparable process of downward assimilation will transform cohabiting relationships among

[1] However, cohabitation as a prelude to marriage (and without childbearing)became more common among those with more education in Chile and Mexico during the 1990s (Rodriguez 2004).

[2] In our data, nearly all Dominican respondents are foreign-born. We initially include Dominican women who entered the United States as children in our sample of U.S.-born women. We will evaluate this decision in the course of our analysis.

Latinos from relatively durable unions defined by family formation to more transient, unstable unions that potentially have a negative effect on children's well-being.

We expect that children of foreign-born parents will experience cohabitation as a protective family form where the parents' sending country has higher rates of cohabitation if social support and tolerance is greater where cohabitation is more normative.[3] To test that hypothesis, we compare children of mothers from the Dominican Republic, Mexico, and Puerto Rico (recognizing that Puerto Rico is a U.S. territory, rather than a foreign country, and that many of the issues specific to international migration are not relevant for Puerto Ricans residing on the U.S. mainland). In the Dominican Republic, approximately 70 percent of all unions are cohabiting (Achecar, Ramirez, Polanco, Ochoa, Lerebours, and Garcia 2003), while 20 percent of unions in Mexico (Rodriguez 2004) and only 4 percent of unions in Puerto Rico are cohabiting (authors' estimates from 2000 Census). Among Latinos residing in the United States, those of Mexican or Dominican descent much less frequently coreside compared to their sending-country counterparts, while Puerto Ricans on the U.S. mainland are much more likely to cohabit than are their counterparts who remain in Puerto Rico (Landale and Forste 1991).

Research Questions and Hypotheses

We ask the following research questions and hypotheses:

Question 1: Do children of *foreign-born* Latino parents who cohabit have better developmental outcomes compared to children of *U.S.-born* Latino parents who cohabit?

[3] Instutional supports would also improve children's well-being, but such supports are lacking among the countries we consider.

Hypothesis 1a: Given the prevalence and normative nature of consensual unions in Mexico and the Dominican Republic, we expect that children of immigrants from these two countries experience cohabitation more similar to that of such unions in the sending countries. We also expect that children of U.S.-born Latino parents (in this case from Mexico and the Dominican Republic) through the process of segmented assimilation will experience the form of cohabitation in the U.S. (marked by shorter union duration and more frequent transitions) which research has found to have poorer child outcomes. We expect better child outcomes for children of cohabiting Mexican- and Dominican-born parents relative to U.S. born parents who identify ethnically as Mexican or Dominican.

Hypothesis 1b: The case of Puerto Ricans is unique in that cohabitation is less common in the country of origin and more common on the U.S. mainland. We expect that because families arriving on the U.S. mainland from Puerto Rico have a less pervasive normative model for cohabitation, the process of assimilation toward the U.S. model of cohabitation will happen more rapidly among settled immigrants, and the difference between residing in a second-generation cohabiting household compared to an immigrant-headed cohabiting household will be lower for Puerto Ricans than for Mexicans or Dominicans because some segmented assimilation will have taken place in the first generation.

Question 2: Do children of parents whose origin is in countries with higher rates of cohabitation have better developmental outcomes compared to children whose origin country has lower rates of cohabitation?

Hypothesis 2: Based on our understanding of the importance of contextual norms and support for cohabitation as a type of union, we expect that children of cohabiting parents whose origin is in areas with higher rates of cohabitation (Mexico and the Dominican Republic) will have better outcomes compared to children whose origin area has lower rates of cohabitation (Puerto Rico).

Data and Methods

To test our hypotheses, we use data from three waves of the Three-City Study, a longitudinal study conducted in low-income neighborhoods in Boston, Chicago, and San Antonio to assess the well-being of low-income urban children and families in the post-welfare reform era. Data were first collected in 1999 from 2,402 households with income below 200 percent of the federal poverty level. From each sampled household, a focal child age 0 to 4 or 10 to 14 was selected as the unit of analysis, and he/she and his/her primary female caregiver (the child's mother in over 90 percent of cases) were interviewed in person. The families were interviewed again 16 months later on average (2000-2001), and for a third and final time in 2005-2006, when focal children were between 5 and 10 or 15 and 20 years old. The wave 1 response rate is 75 percent, and the wave 1 to wave 3 retention rate is 80 percent. Both rates are favorable compared to other studies of low-income populations. When weighted, the data are representative of non-Latino white, African-American, and Latino children in the specified age groups living with a female caregiver in poor neighborhoods in the three cities studied in 1999 (Winston, Angel, Burton, Chase-Lansdale, Cherlin, Moffitt, and Wilson 1999). An oversample of Latino household heads is included (N=1137 at wave 1), and Latina caregivers are asked to specify their ethnicity (whether Cuban, Dominican, Mexican, Puerto Rican, or other). All caregivers indicate whether they are

foreign-born. The most common foreign countries of birth among Latinas are Mexico and the Dominican Republic. We restrict our analysis to children cared for by a biological mother who identified as Latina of Mexican, Dominican, or Puerto Rican origin. The wave 3 sample size for analysis is nearly 712 child-mother pairs.

Outcomes

We use two sets of outcomes available in the Three-City Study at wave 3 that have previously been shown to be associated with cohabitation: behavior problems and school dropout. Behavior problems are broadly of interest as indicators of successful functioning in childhood and adolescence and as predictors of successful transitions to adulthood . School engagement and educational attainment are of particular importance to scholars of Latino adjustment and assimilation. To assess behavior problems, we use scale scores from the Child Behavior Checklist (CBCL) and Adult Behavior Checklist (Achenbach 1991), common psychometric assessments used to identify externalizing and internalizing behavior problems in children and adults. The CBCL was administered to caregivers of focal children at each wave of the study, and scores for internalizing, externalizing, and total behavior problems are available. Our analysis focuses on externalizing behavior problems. The youngest children in the sample who received a version of the CBCL were 2 to 3 years old at wave 1, and the oldest children were 14 at wave 1. By wave 3, the youngest children were 7 to 8 years old, and the oldest children were 20 years old. Standardized CBCL scores allow comparisons across age groups and instruments. Because of the study design and the time between waves, the sample includes data points for nearly every age between preschool and early adulthood. The alpha reliability scores for externalizing behavior scores in the our analytical subsamples are above .90.

To assess school engagement for the oldest children in our sample (ages 15-20), we look at whether a child dropped out of school by wave 3. We combine children who left school with or without earning a GED because we are interested in dropout as the end result of a process of disengagement from school (Alexander, Entwisle, and Kabbani 1991), and because relatively few children who dropped out received a GED.

Analytic Methods

We first present descriptive information comparing the union status of foreign-born and U.S.-born mothers in the three ethnic subgroups at the time the focal child was born and at each wave. We also indicate the average number of transitions children experienced and the proportion of childhood spent in any union between each interval.

We proceed to multivariate analyses predicting externalizing behavior scores for all children and school dropout by wave 3 for adolescents. (See discussion of dropout model below.) We predict externalizing behavior scores as a function of family structure at birth, the number of transitions the child has experienced between waves, and current household structure. We conduct analyses separately by ethnic subgroup and foreign-born status. We use generalized estimating equations (GEE), which allow us to pool the three waves of data and to control for within-person dependence across multiple observations for an individual child. This method allows us to maximize sample size and to assess between-group differences in the association of family structure with externalizing behavior. Externalizing behavior scores are standardized with a mean of 50 and a standard deviation of 10. This distribution permits a GEE analysis structured as an ordinary least squares multiple regression with robust standard errors.

The GEE model does not account for time-dependence, nor does it predict developmental trajectories in the way that a fixed effects model or growth curve model would (although

interactions of key independent variables of interest with age or time permit the assessment of change). Our current focus is to establish the presence or absence of between-group differences in the broad influence of cohabitation as a family form and to identify explanatory factors that mediate those differences, rather than to identify between-group differences in the effects of cohabitation on developmental trajectories.[4] The analytic model takes the form:

$$y_{ij} = \alpha + \mathrm{B}_1 F_{ij} + \mathrm{B}2 A_{ij} + B3 E_{ij} + B4 C_{ij} + e_i$$

where y_{ij} is the value of the externalizing behavior problems score for individual *i* at wave *j;* α is a constant that holds its value across observations and waves; B_1 is a set of coefficients associated with covariates F, representing measures of family structure for individual *i* at wave *j*; B_2 is a set of coefficients associated with covariates A, and covariates A represent measures of assimilation obtained at each wave; B_3 is a set of coefficients associated with covariates E, and covariates E represent measures of economic well-being obtained at each wave; B_4 is a set of coefficients associated with a set of control covariates (C); and ei is the error term associated with person *i*.

Independent Variables

We expect that children's externalizing behavior may represent a short-term response to an acute crisis or a transition period in families, while school dropout is the culmination of a more long-term process of difficulty and disengagement from school. Therefore, while we expect

[4] A fixed-effects model would allow us only to assess change in family structure status between waves. Because our preliminary analyses suggested an important effect of family structure at birth on children's externalizing behavior, we did not wish to ignore this time-invariant characteristic, which a fixed-effects model would require. One solution would be to interact family structure at birth with time-varying characteristics in a fixed-effects framework. A growth-curve model, while appealing, seemed infeasible with three waves of data because the model would require us to predict three terms with only three waves of data: an intercept, a slope term for age, and a slope term for cohabitation status (with foreign-born status being the key predictor of that slope). Without another wave of data, we would be required to fix one of the three terms.

that externalizing behavior and school dropout may have common underlying causal factors, we develop different conceptual models to consider each outcome.

Family Structure. Our model that assesses the relationship between cohabitation and children's externalizing behavior problems includes three dimensions of family structure: family structure at birth; family structure at the time of each interview; and the number of family structure transitions a child has experienced by each wave of the study. Family structure at birth (specifically, the comparison between being born to a single or cohabiting mother versus being born to a married mother) represents the child's baseline experience, and the effect of family structure at birth has been shown to interact with later instability to predict children's behavior problems (Cavanagh and Huston 2006). Current family structure represents the immediate material and emotional resources available to a child. The number of family structure transitions a child has experienced is a measure of instability. Instability in family structure has been found to have a positive, independent effect on children's externalizing behavior above and beyond "snapshot" measures of family structure (Fomby and Cherlin 2007).

Assimilation. We test five indicators of mothers' assimilation in relation to externalizing behavior problems. The first is a dichotomous measure of whether the mother is a native English speaker or speaks English very well or pretty well versus speaking English either not well or not at all (measured at wave 1). Second, we include a standardized score of the mother's experience of domestic violence in the past 12 months, measured at each wave. U.S.-born low-income Latinas experience higher rates of domestic violence compared to foreign-born Latinas (Frias and Angel 2005). Third, we use the mother's total score on the Adult Brief Symptom Inventory, an assessment of psychological distress.[5] A higher score indicates greater psychological distress. Foreign-born Latinos have been found to have better mental health than U.S.-born Latinos

[5] The raw score is transformed to account for skewness.

(Escobar, Hoyos Nervi, and Gara 2000). Fourth, we include two factor scores developed specifically for the third wave of the Three-City Study. The first is a scale that indicates the respondent's perception of the stigma of nonmarital childbearing. The scale includes Likert-style responses to items like, "Having a child without being married is embarrassing for a woman," and, "A woman should have children if she wants to, even if she is not married." The scale is composed of 4 items, and has an alpha reliability of .68. A higher score indicates greater worry about a perceived stigma attached to nonmarital childbearing. The second factor score measures women's trust in men and marriage. It is based on Likert-style responses to 6 items, including, "Most marriages end with one of the partners getting hurt," and, "Marriage usually changes a relationship for the worse." A higher score indicates a more negative view of men and marriage. The alpha reliability for the scale is .66. We anticipate that U.S.-born mothers will have greater worry about the stigma of nonmarital childbearing and more negative views of marriage compared to foreign-born mothers. Further, we anticipate that these attitudes will mediate the association between family structure and children's externalizing behavior problems. Because these measures were not collected until wave 3, we cannot interpret their association with children's externalizing behavior as temporally prior. However, they offer a unique contribution to an analysis of the effects of acculturation and assimilation.

Economic stress. We include two measures of economic stress. The first is an index of financial strain, including problems with paying bills on time, budget shortfalls, and food scarcity. We interpret this index as a measure of acute financial pressure, rather than as a measure of embedded hardship or poverty, and we anticipate that financial strain will have a more proximate relationship to child behavior problems than would a measure of household poverty. We expect that children with foreign-born mothers will be more likely to experience

financial strain compared to children with U.S.-born mothers because household members' employment may be less consistent or remunerative. Second, we include a dichotomous indicator of whether the child's mother is working at all in the month of interview. We expect that foreign-born women will be less likely to have continuous employment, and a transient work pattern will mediate the relationship between family structure and child behavior problems.

Control variables. The estimation of each outcome also includes the following control variables: Whether the child's mother had received a high school diploma by wave 1; household size (measured at each wave to predict externalizing behavior and at wave 2 to predict school dropout)[6]; mother's age; child's age in years; whether the child is male; and whether the child is foreign-born. In the model combining all ethnic groups to predict a child's externalizing behavior problems score, controls are also included for the city in which the child and mother were first interviewed (Chicago or San Antonio vs. Boston). City is not included as a control variable in analyses of specific ethnic groups because of geographic clustering by ethnicity.

The model predicting school dropout by wave 3 is similar to the model predicting externalizing behavior problems in all respects except the following: first, the model is a logistic regression estimating the log-odds of school dropout, rather than a generalized estimating equation. We predict school dropout by wave 3 as a function of attributes of the focal child, and his/her mother measured at waves 1 and 2. Second, we use a measure of poverty at wave 2 rather than financial strain because we expect that more entrenched hardship is indicative of the cumulative process that leads to school dropout.[7] Third, we use a measure of the proportion of the child's life spent in a single parent household or cohabiting household by wave 2, rather than

[6] Unless time-invariant, control variables are time-varying in the model estimating externalizing behavior problems and measured at time 2 in the model predicting school dropout.

[7] A future analysis could incorporate poverty status at wave 1 as well as retrospective data on TANF and food stamp use in order to develop a more refined measure of time in poverty.

snapshot indicators of children's family structure at wave 2. The comparison category is children who have spent all of childhood in a married household. Again, we anticipate that the proportion-based measure, rather than the snapshot indicator of family structure, will better represent the child's cumulative experience of family structure. Fourth, we include the focal child's standardized score on the Woodcock Johnson applied problems assessment (a test of skills related to mathematics ability) at wave 2 as an indicator of prior cognitive achievement. Finally, we predict only one model that pools both nativity groups and all ethnic groups, and we include dummy variables for ethnicity and exclude variables for the city in which the child and mother were first interviewed.

Descriptive characteristics of the dependent variables, control variables, and measures of assimilation and financial stress for the sample are reported in appendix table A1.

Results

Table 1 reports comparisons of the indicators of family structure by nativity and ethnicity. Reported means and standard errors are weighted. Children with U.S.-born mothers are compared to children with foreign-born mothers[8] and children of ethnic Mexican, Puerto Rican, and Dominican mothers are compared to one another. Comparing the children of U.S.-born and foreign-born mothers, children of foreign-born mothers were born more frequently to married women (52 percent vs. 40.7 percent for children of U.S.-born mothers, p=.06) and about as often to cohabiting women (23.5 vs. 22.5 percent). For both groups, the proportions cohabiting by wave 1 had dropped dramatically, but the change was greater for U.S.-born women (6.7 percent cohabiting at wave 1) than for foreign-born women (14.1 percent cohabiting). There was

[8] The comparison includes children of ethnic Puerto Rican mothers, for whom the appropriate comparison is island-born vs. mainland-born women.

relatively little change in cohabitation status by wave 2 for either group, but by wave 3, 12.6 percent of children of U.S.-born mothers were living in cohabiting unions, compared to 8.4 percent of children of foreign-born mothers. The proportion of children of foreign-born mothers residing with a single parent increased commensurately at wave 3, suggesting that those mothers' cohabiting unions more often ended in dissolution, rather than marriage. These divergent patterns suggest a path of union dissolution and re-partnering for U.S.-born mothers and longer union stability without repartnering upon dissolution for children of foreign-born mothers.

Reflecting those different patterns, children of U.S.-born mothers had experienced more family structure transitions compared to children of foreign-born mothers at waves 2 and 3 (.75 transitions at wave 3 for children of U.S.-born mothers, compared to .52 transitions for children of foreign-born mothers.) In terms of proportion of lifetime spent in each family structure, children of foreign-born mothers spent more years in marriage and fewer years in cohabiting unions compared to children of U.S.-born mothers, and similar proportions of life in single-parent households. That children of foreign-born mothers spent less time in cohabiting unions reflects the higher rates of marriage among foreign-born women.

The comparison of family structure indicators among ethnic groups shows significant divergence. Children of Mexican and Dominican-origin mothers were most often born in marriage, while 44.5 percent of children of Puerto Rican mothers were born when the mother was unmarried and not cohabiting. Cohabitation rates at birth were highest for Puerto Rican-origin mothers (33 percent) and around 20 percent for both Mexican- and Dominican-origin mothers. By wave 1, between half and two-thirds of cohabiting unions had ended; only for the Mexican-origin group had marriage rates increased, suggesting that for that group cohabiting unions gave way to marriage. For the other groups, single parenthood had become the most

frequent family structure. For Dominicans especially, this transition indicates high rates of marital dissolution between the child's birth and wave 1.

Between waves, cohabitation rates stabilized around 10 percent for children of Mexican-origin mothers, while cohabitation was characterized by greater instability for children of Puerto Rican- and Dominican-origin mothers. Twenty percent of Puerto Rican-origin mothers cohabited at wave 2 and 14 percent at wave 3. The figures for Dominican-origin mothers are 12 percent and 1.7 percent at waves 2 and 3, respectively. Consistent with these snapshot measures of family structure change, children of Puerto Rican and Dominican mothers experienced more family structure transitions compared to children of Mexican-origin mothers by wave 3 (.71 vs. .52 transitions).

In terms of lifetime proportions, children of Mexican-origin mothers spent just over half of time in married households and 13 percent of time in cohabiting unions. Children of Puerto-Rican mothers by wave 3 had spent less than a quarter of their lifetimes in a married parent household and more than a quarter in cohabiting households. Dominican children, who were mostly likely to be born to married mothers and to experience subsequent instability, spent an estimated 45.5 percent of their lifetimes in married parent households and a similar amount in single parent households.

The descriptive analysis provides mixed support for our hypotheses. Children of foreign-born mothers do appear to experience less instability associated with cohabitation; although cohabitation rates dropped by wave 3 for that group, they do not show the up-and-down pattern that characterizes the cohabitation rates of U.S.-born mothers. Likewise, the number of transitions experienced is fewer for children of foreign-born mothers. But our comparison of ethnic groups does not provide consistent support our hypothesis that children experience less

instability in groups where cohabitation is more common at origin. While children of Mexican-origin mothers experience less instability than children of Puerto Rican-origin mothers, the children of Dominican-origin mothers experience frequent family structure transitions, regardless of whether they were born in marriage or in a cohabiting union.

Multivariate analysis

Externalizing behavior problems

To describe the association of family structure with children's externalizing behavior problems, we present a total of fourteen models summarized in four tables. There are seven groups of children considered, and for each group, two models are presented. Each model predicts a child's externalizing behavior problem score as a function of family structure characteristics and other measures. In the first model, the other measures include only our control variables. We refer to this as the simple model. In the second model, we add variables measuring assimilation, acculturation, and economic stress. We refer to this as the full model. Table 2 includes all children of U.S.-born Latina mothers and all children of foreign-born Latina mothers in separate analyses. Table 3 includes children of Mexican-origin U.S.-born mothers and foreign-born mothers in separate analyses. Table 4 includes children of Puerto Rican-origin mainland-born mothers and island-born mothers in separate analyses. Table 5 includes only children of foreign-born mothers from the Dominican Republic; the sample included only a handful of Dominican-origin women born in the United States and could not support separate analyses for U.S.-born and foreign-born groups.

The results of the simple and full models in table 2 provide broad support for our first hypothesis: cohabitation experience appears to have a positive association with externalizing

behavior problem scores for children with U.S.-born mothers, but not for children with foreign-born mothers. Children with U.S.-born mothers who were cohabiting at birth have a 4.96-point increase in their standardized behavior problem score in the simple model and a 4.35-point increase in the full model. Because the behavior problem score is standardized with a mean of 50 and a standard deviation of 10, these values represent an increase in behavior problems of between .435 and .496 standard deviations. There is no significant association of current cohabitation status with the outcome measure in the simple or full model for either group.

For children both of U.S.-born an foreign-born mothers, measures of assimilation and acculturation are associated with the child's behavior problem score, but measures of economic stress are not. Two measures of assimilation are arguably associated with downward assimilation: recent experience of domestic violence and higher psychological distress have positive independent effects in predicting children's externalizing behavior scores, but do not appear to mediate the association of family structure at birth significantly. Mother's higher English language ability is associated with fewer behavior problems for children with U.S.-born mothers. Among children of both U.S.-born and foreign-born mothers, greater worry about stigma associated with nonmarital childbearing is negatively associated with behavior problems, and for children of foreign-born mothers, less trust in men and marriage by mothers is associated with more behavior problems for children.

Table 3 presents results for children of Mexican-origin mothers. The results provide mixed support for our first hypothesis, that children of foreign-born Mexican-origin mothers will experience fewer negative effects of cohabitation compared to children of U.S.-born Mexican-origin mothers. For both groups, there is a strong, positive association between being born to a cohabiting mother and the externalizing behavior score. (The interaction between foreign-born

status with cohabitation status at birth in pooled models for all children with Mexican-origin mothers was insignificant; therefore we conclude that the coefficients in each group's model are equivalent.) For children of U.S.-born mothers only, there is a positive association between current cohabitation status and the behavior problems score in the simple model (β_{simple}=4.402) that is mediated in the full model (β_{full}=3.16). For children of U.S.-born mothers, the magnitude of the association of cohabitation status at birth is also reduced by about 10 percent in the full model (from β_{simple}=4.315 to β_{full}=3.997, although the significance level remains unchanged), while the association remains more or less unchanged in the full model for children of foreign-born mothers. The finding that cohabitation status at birth is positively associated with behavior problems for both children of U.S.-born and foreign-born children is counter to our first hypothesis, but the hypothesis gains some support in the finding that current cohabitation status is associated with behavior problems only for children of U.S.-born children, and that association is mediated by measures of assimilation and acculturation.

For both groups, recent experience of domestic violence and greater psychological distress are associated with children's behavior problems. For children of foreign-born mothers only, mothers' greater negative feelings about trust in men and marriage are associated with higher behavior problem scores for children.

Table 4 presents results for children of mainland-born and island-born Puerto Rican mothers. We expected to see smaller differences in the effects of cohabitation on children's behavior problems among children of Puerto Rican mainland-born or island-born women compared to Mexicans and Dominicans, because we hypothesized that the absence of a normative structure for cohabitation in Puerto Rico would be reflected in the absence of a protective effect of migration for children of island-born women. Operationally, we expected the

coefficients for cohabitation status at birth and current cohabitation status to be similar for children of mainland-born and island-born mothers. However, this is not the case. Rather, there is no apparent association between cohabitation status at birth or current cohabitation status and children's externalizing behavior for children of island-born mothers. There is a positive association between cohabitation status at birth and behavior problems for children of mainland-born mothers in the simple model, and that association is mediated to a level below statistical significance in the full model.

In addition, the effect of cohabiting at interview relative to the effect of marriage is *negative* for children with mainland-born mothers, indicating that children residing in cohabiting unions are expected to have lower behavior problem scores relative to children in married households. This is unexpected, but perhaps not surprising in light of the finding that the number of transitions a child has experienced is positively associated with behavior problems. Our review of the descriptive statistics showed that the proportion of Puerto Rican women married during the course of the study increased at each wave, suggesting that children in married households are residing with a stepparent. Children who are in cohabiting unions may continue to reside with both biological parents, or the effect of residing with a mother's partner who is not the biological father may be less deleterious in the context of cohabitation compared to marriage, at least for the subset of children of mainland-born Puerto Rican mothers.

Table 5 predicts externalizing behavior problem scores for children of foreign-born women from the Dominican Republic. Because we cannot compare foreign-born women to U.S.-born women for this ethnic group, we introduce an interaction between mother's age at migration and cohabitation status at birth to capture the effect of residing in the United States for more or less time. Age at migration is centered at 18 years. We find that for children born to a mother

who migrated after age 18, there is a negative effect of being born in a cohabiting union. When the size of the coefficient is added to the coefficients for the independent effects of being born in a cohabiting union and being foreign-born, the combined effect is to wash out the effect of cohabitation status at birth for children of foreign born mothers (for example, for a mother who migrated to the United States at age 19, $\beta_{\text{cohab at birth}}*1+ \beta_{\text{foreign-born}}*1+ \beta_{\text{interaction}}*(1*1)=.534+.089-.624= -.001$).

School dropout

Focal children aged15-20 in the third wave of the Three-City Study are asked whether they are in school, and if not, when and why they left school. Approximately one-quarter of children with Latina mothers indicated that they had dropped out of school. Because only a subset of children in the sample is old enough to respond to items about school dropout, we lack sufficient sample size to test separate models for each ethnic/foreign-born group. Instead, we use a single model that pools children of foreign-born and U.S.-born mothers of all ethnicities. The model includes an interaction term for mother's foreign-born status by the percentage of life spent in a cohabiting union. All time-varying independent variables are based on reports from wave 2.

The first model in table 6, which includes only indicators of family structure and control variables, indicates that children with a foreign-born mother who have spent time in a cohabiting union are less likely than comparable children with U.S.-born mothers who cohabit or remain married to drop out of school. The coefficient is large and negative, but because most children of foreign-born mothers cohabit for only a portion of their lives, the relative magnitude of the effect would be less than what the coefficient suggests. (For example, the log-odds of dropping out of school for a child who lived in a cohabiting union for 10 percent of her life with a foreign-born

mother would be ($\log(p/1-p) = \beta_{prop.cohab}*.10 + \beta_{foreign\text{-}born}*1 + \beta_{interaction}*(1*.10) = (.886*.1)+(-.357*1)+(-8.938*.10) = -1.162$.) Recall that the descriptive statistics indicated that children of foreign-born mothers had less dramatic changes in the prevalence of cohabitation between birth and wave 2; the negative coefficient may indicate that those children continue to coreside with both biological parents or may have experienced less instability in general compared to children of U.S.-born parents.

The full model increases the magnitude of the negative interaction coefficient (changing from β=-8.938 to β=-11.512). The effects of being born to a cohabiting mother or single mother, both positive in the model with controls only, become significant in the full model as well. Birth outside of marriage, then, is associated with a greater risk of dropping out of school, while more time spent in a cohabiting union is associated with a lower risk for children of foreign-born mothers. One interpretation of these competing effects is that while there is a disadvantage associated with a nonmarital birth, that disadvantage may be moderated if the nonmarital family structure does not dissolve shortly after a child's birth.

In the full model, mother's psychological distress and higher negative feelings towards trust in men and marriage are independently associated with children's probability of school dropout. (Note that mother's psychological distress at wave 2 is *negatively* associated with school dropout.) Stepwise logistic regressions (not shown) indicate that each of these variables is also associated with the greater magnitude and significance level of the family structure variables discussed above.

Discussion

Evaluating our hypotheses

Our research began with the conjecture that among Latino children, experience residing in a cohabiting union as opposed to residing with a married mother may be less deleterious for children of foreign-born mothers compared to children of U.S.-born mothers if there were a protective effect of cohabitation as a cultural norm in the mother's sending country. Furthermore, we hypothesized that children whose foreign-born mothers came to the United States from countries or areas with a higher prevalence of cohabiting unions (*uniones libres*) would fare better in cohabiting unions compared to children whose mothers came from areas with a lower prevalence of cohabiting unions. We expected that stability in cohabiting unions among foreign-born mothers would at least partially account for any observed differences.

We tested our conjectures by comparing children of foreign-born and U.S.-born mothers of Dominican, Mexican, and Puerto Rican origin (those sending areas representing areas of high, moderate, and low cohabitation, respectively) on externalizing behavior problems and the probability of school dropout. We tested various measures of family structure, including family structure at birth, proportion of life in cohabiting or single parent households, family structure at interview, and the frequency of family structure transitions.

We found moderate support for our hypotheses. Overall, children born in cohabiting unions have lower behavior problem scores when their mothers are foreign-born, compared to U.S.-born, and children with foreign-born mothers who cohabit during the child's lifetime have a lower probability of school dropout. Family structure at birth has a stronger relationship with externalizing behavior problem scores than does family structure at interview. This association

contrasts with our expectation that externalizing behavior may reflect children's current, rather than cumulative, circumstances.[9]

We found less consistent support for the comparisons between ethnic groups. We expected that in the association between cohabitation experience and children's behavior problem scores, there would be the greatest nativity status gap between children of Dominican foreign-born and U.S.-born mothers, and the smallest nativity gap between children of Puerto Rican island-born and mainland-born mothers. Instead, we found that the effects of foreign-born status for the Dominican and Puerto Rican groups were similar, and the effects of foreign-born status for children of Mexican-origin mothers were divergent. Specifically, children born into cohabiting unions with Dominican mothers who entered the United States after age 18 or to island-born Puerto Rican mothers had lower predicted behavior problem scores relative to their respective comparison groups. In contrast, children of foreign-born or U.S.-born Mexican-origin mothers experienced a positive association of cohabitation status at birth with behavior problems. We conclude that while there does appear to be a nativity effect on the relationship between cohabitation and child outcomes, it is not due only to cohabitation rates at origin.

Explanatory factors

We hypothesized that the number of family structure transitions a child had experienced would mediate the association between cohabitation experience and our outcomes for children with U.S.-born parents. However, this mechanism did not appear to have a significant effect in most models. In models not shown here, the addition of a count of the number of transitions a child had experienced mediated the effect of cohabitation status at birth only for mainland-born Puerto

[9] The association of cohabitation status/single parent status at birth with externalizing behavior scores also may result from the inclusion of very young children (2-4) at wave 1 in the model. The effect of family structure at birth may recede with age, although interaction we tested were not significant.

Ricans. In the models included here, the transition count variable has a significant coefficient only in the analyses for that group.

Rather than instability, the attributes that mediate the association of cohabitation status and children's behavior problems are experience with domestic violence in the last year, psychological distress, worry about stigma associated with nonmarital childbearing, and negative feelings about trust in men and marriage. Only among children with Puerto Rican mothers do the indicators of economic stress have an apparent mediating effect: the negative effect of mother's employment status mediates the association of being born into a cohabiting union or experiencing a transition with behavior problems for children of mainland-born mothers, and the positive effect of financial reduces the magnitude of the effect of transitions for children of island-born mothers. Reflecting on the downward assimilation model posited by Oropesa and Landale (2004) to explain withdrawal from the marriage market over generations, the indicators of downward assimilation in our model appear to be psychosocial rather than economic in nature. One interpretation of these psychosocial measures that we have considered is that they represent attributes of women's relationship quality, or attributes associated with how women approach relationships, that are also associated with parenting style or the functioning of the mother-child dyad more generally. For example, children of foreign-born Mexican-origin women who have higher scores on the trust in men and marriage scale (indicating *less* trust) have higher scores on the externalizing behavior score; and mothers' lower trust in men and marriage is also associated with a greater likelihood of dropping out of school. We speculate that children of mothers who have less trust in men and marriage or poorer mental health are affected directly by mothers' personal interaction style as well as by the relationship patterns that either give rise to or ensue from mothers' attitudes and behaviors.

Limitations

Data from the Three-City Study are not nationally representative. However, the data set offers an unusual opportunity to compare relatively large samples from several Latino ethnic subgroups and to compare groups by nativity status. What the data lack in breadth, they make up for in specificity in regard to our research question.

Despite the relatively large subsamples that we consider, we were not able to break down family structure into more useful dimensions. Specifically, we expect that the experience of residing in a cohabiting union with two biological parents is substantively different from residing with a biological mother and her partner. In the specifications we used here, we lacked sufficient sample size to compare residence with biological fathers to residence with other partners. Such an analysis may be possible in predicting externalizing behavior problems if we pool children of foreign-born and U.S.-born mothers in single models for each ethnic subgroup.

Sample size restrictions also prevent us from developing a more nuanced model to estimate the probability of school dropout. We plan to move from the logistic regression framework to an event history framework that would allow us to look at lags in the association between the timing of family structure change and school dropout. In addition, we have data on younger children's (ages 5-11) school engagement at wave 3, which would allow us to test more directly the hypothesis that children's family structure may be associated with a process of disengagement from school.

In terms of measurement, mothers' reports of children's behavior problems (such as the CBCL, used here to identify externalizing behavior), while reliable, are known to be subject to reporting bias. Specifically, mothers who are experiencing psychological distress may be more likely to report that their children have psychological or emotional health problems, regardless of

the child's objective mental health status. The consistent positive effect of mother's psychological distress in predicting children's behavior problem scores in our models may reflect that bias as well as a true association. The question for our research is whether the apparent mediating effect of psychological distress on the coefficients for cohabitation status is real or an artifact of the research design. In future work, we will consider nativity differences in the association between cohabitation status and children's self-reported delinquent behavior to avoid the issue of reporter bias.

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Table 1. Comparison of indicators of family structure by nativity and ethnicity, Three-City Study, waves 1 to 3, weighted means

	US-Born		Foreign-born			Mexican		Puerto Rican		DR		
Variable	Mean	SE	Mean	SE		Mean	SE	Mean	SE	Mean	SE	
Family Structure at birth												
Focal child born in marriage	0.4073	*0.044*	0.522	*0.043*		0.543	*0.042*	0.222	*0.044*	0.594	*0.061*	*
FC born to single mother	0.3673	*0.041*	0.243	*0.032*	*	0.257	*0.035*	0.448	*0.052*	0.225	*0.045*	*
FC born to cohabiting mother	0.2253	*0.034*	0.235	*0.038*		0.200	*0.033*	0.330	*0.055*	0.182	*0.048*	*
Family Structure at wave 1												
Mother married	0.4348	*0.046*	0.471	*0.044*		0.586	*0.040*	0.205	*0.050*	0.338	*0.069*	*
Mother single	0.4974	*0.044*	0.388	*0.037*		0.308	*0.033*	0.666	*0.058*	0.597	*0.067*	*
Mother cohabiting	0.0677	*0.019*	0.141	*0.035*	*	0.107	*0.027*	0.129	*0.047*	0.065	*0.025*	
Family structure at wave 2												
Mother married	0.4677	*0.045*	0.477	*0.043*		0.593	*0.040*	0.267	*0.055*	0.326	*0.070*	*
Mother single	0.4541	*0.042*	0.358	*0.036*		0.315	*0.035*	0.529	*0.054*	0.556	*0.066*	*
Mother cohabiting	0.0782	*0.019*	0.165	*0.032*	*	0.092	*0.025*	0.204	*0.045*	0.118	*0.034*	*
Family structure at wave 3												
Mother married at w3	0.4118	*0.045*	0.452	*0.044*		0.539	*0.042*	0.279	*0.053*	0.257	*0.063*	*
Mother single at w3	0.4618	*0.043*	0.464	*0.042*		0.352	*0.038*	0.584	*0.056*	0.726	*0.063*	*
Mother cohabiting at w3	0.1264	*0.031*	0.084	*0.028*		0.109	*0.029*	0.138	*0.044*	0.017	*0.010*	
Instability												
# of transitions child exp'd by w1	0.3738	*0.043*	0.273	*0.043*		0.269	*0.038*	0.427	*0.065*	0.350	*0.069*	*
# of transitions child exp'd by w2	0.4945	*0.052*	0.295	*0.043*	*	0.335	*0.043*	0.513	*0.071*	0.395	*0.071*	*
# of transitions child exp'd by w3	0.7477	*0.061*	0.518	*0.053*	*	0.570	*0.054*	0.712	*0.082*	0.712	*0.078*	
Lifetime experience												
Prop of life w/single mother, w1	0.6274	*0.039*	0.542	*0.040*		0.525	*0.040*	0.683	*0.047*	0.643	*0.061*	*
Prop of life w/single mother, w2	0.5959	*0.040*	0.526	*0.040*		0.505	*0.040*	0.653	*0.047*	0.624	*0.060*	*
Prop of life w/single mother, w3	0.4305	*0.034*	0.394	*0.035*		0.359	*0.034*	0.511	*0.043*	0.454	*0.051*	*
Prop of life w/cohab mother, w1	0.0935	*0.018*	0.091	*0.022*		0.065	*0.013*	0.170	*0.042*	0.064	*0.023*	*
Prop of life w/cohab mother, w2	0.0988	*0.018*	0.095	*0.022*		0.074	*0.013*	0.169	*0.041*	0.063	*0.021*	*
Prop of life w/cohab mother, w3	0.2014	*0.027*	0.128	*0.024*	*	0.134	*0.020*	0.267	*0.044*	0.091	*0.022*	*
Prop of life w/married mother, w1	0.2786	*0.041*	0.368	*0.042*		0.409	*0.041*	0.147	*0.038*	0.292	*0.063*	*
Prop of life w/married mother, w2	0.3053	*0.042*	0.379	*0.042*		0.422	*0.041*	0.179	*0.041*	0.313	*0.063*	*
Prop of life w/married mother, w3	0.368	*0.041*	0.479	*0.040*	*	0.506	*0.039*	0.223	*0.041*	0.455	*0.057*	*
N	373		336			407		197		105		

* Group differences are significant at the 5 percent level. Comparisons between nativity groups use Chi-square tests or t-tests; comparisons between ethnic groups use Chi-square tests or ANOVA. Source: Three City-Study, waves 1 to 3.

Table 2. Generalized estimating equations predicting focal children's externalizing behavior problem scores for all Latino children, by mother's nativity status

	U.S.-born		Foreign-born	
	Simple	Full	Simple	Full
Current structure: Cohabiting	2.781	1.335	-0.405	-1.787
	[1.738]	[1.554]	[1.529]	[1.516]
Current structure: Single	1.92	0.938	1.12	-0.842
	[1.342]	[1.243]	[2.652]	[2.092]
FC born in cohabiting union	4.96	4.354	0.072	-0.604
	[1.249]***	[1.302]***	[1.654]	[1.504]
FC born to single mother	3.07	2.209	2.973	2.379
	[1.563]**	[1.383]	[1.453]**	[1.303]*
# of transitions FC experienced	1.196	0.92	1.292	1.469
	[0.645]*	[0.613]	[1.102]	[1.007]
rcvd high school diploma, w1	-1.519	-1.285	0.105	0.602
	[1.137]	[1.025]	[1.265]	[1.277]
Household size	0.426	0.516	0.228	0.181
	[0.348]	[0.346]	[0.470]	[0.430]
Mother's age	-0.035	0.022	-0.22	-0.123
	[0.083]	[0.082]	[0.085]***	[0.073]*
Child's age in years	0.113	0.109	0.687	0.544
	[0.108]	[0.115]	[0.148]***	[0.136]***
Child is male	-0.368	-0.526	-0.934	-0.879
	[1.132]	[1.012]	[1.282]	[1.233]
Child is foreign-born			-4.854	-4.142
			[1.786]***	[1.818]**
Chicago	-0.506	-0.367	-0.914	-1.007
	[1.571]	[1.557]	[1.424]	[1.432]
San Antonio	-1.406	-1.408	-2.174	-1.488
	[1.435]	[1.336]	[1.922]	[1.787]
Mother speaks Eng very/pretty well or native		-3.223		-0.055
		[1.627]**		[1.094]
Domestic Violence Frequency in last yr, t-score		4.449		6.446
		[1.823]**		[2.937]**
BSI Total Score, t-score		2.602		1.689
		[0.435]***		[0.474]***
out-of-wed chbearing stigma scale		-1.876		-1.452
		[0.819]**		[0.841]*
trust/marr scale		0.362		1.93
		[1.108]		[1.146]*
Financial Strain		0.126		1.29
		[0.647]		[0.796]
Mother employed		-0.221		0.529
		[0.906]		[0.886]
Constant	46.393	47.308	51.009	44.586
	[3.408]***	[4.637]***	[3.415]***	[4.257]***
Observations	938	938	867	867
Number of nhhid	362	362	323	323

Standard errors in brackets
* significant at 10%; ** significant at 5%; *** significant at 1% (two-tailed tests)
Source: Three-City Study, waves 1 to 3

Table 3. Generalized estimating equations predicting focal children's externalizing behavior problem scores for Mexican-origin children, by mother's nativity status

	U.S.-born		Foreign-born	
	Simple	Full	Simple	Full
Current structure: Cohabiting	4.402	3.16	3.208	-1.179
	[2.213]**	[2.002]	[4.340]	[3.143]
Current structure: Single	2.849	1.677	-0.66	-2.991
	[1.544]*	[1.423]	[2.516]	[2.310]
FC born in cohabiting union	4.315	3.997	4.544	4.442
	[1.352]***	[1.487]***	[2.172]**	[2.016]**
FC born to single mother	2.353	1.119	1.624	0.29
	[1.872]	[1.608]	[2.950]	[2.660]
# of transitions FC exp'd	0.702	0.616	1.292	2.21
	[0.754]	[0.701]	[2.121]	[1.596]
rcvd high school diploma, w1	-1.543	-1.133	-0.194	0.449
	[1.355]	[1.167]	[2.199]	[2.176]
Household size	0.615	0.688	0.822	0.809
	[0.404]	[0.392]*	[0.629]	[0.569]
Mother's age	-0.033	0.006	-0.348	-0.147
	[0.093]	[0.087]	[0.123]***	[0.106]
Child's age in years	0.109	0.132	0.949	0.697
	[0.122]	[0.127]	[0.232]***	[0.218]***
Child is male	0.4	0.299	3.185	3.237
	[1.349]	[1.188]	[2.100]	[1.871]*
Child is foreign-born			-4.055	-2.661
			[3.516]	[3.336]
Mother speaks Eng very/pretty well or native		-2.45		-2.096
		[1.534]		[1.853]
Domestic Violence Frequency in last yr, t-score		5.818		9.305
		[2.164]***		[3.235]***
BSI Total Score, t-score		2.704		2.266
		[0.521]***		[0.803]***
out-of-wed chbearing stigma scale		-1.529		-0.677
		[1.004]		[1.714]
trust/marr scale		0.751		5.067
		[1.257]		[2.370]**
Financial Strain		-0.476		1.537
		[0.763]		[1.151]
Mother employed		0.707		1.856
		[1.079]		[1.369]
Constant	43.748	41.748	45.851	26.098
	[3.936]***	[5.073]***	[4.248]***	[6.459]***
Observations	698	698	328	328
Number of nhhid	270	270	122	122

Standard errors in brackets
* significant at 10%; ** significant at 5%; *** significant at 1%
Source: Three-City Study, waves 1 to 3

Table 4. Generalized estimating equations predicting focal children's externalizing behavior problem scores for Puerto Rican-origin children, by mother's nativity status

	Mainland-born		Puerto Rico-born	
	Simple	Full	Simple	Full
Current structure: Cohabiting	-3.223	-4.257	-0.276	-3.512
	[2.577]	[2.370]*	[3.445]	[3.618]
Current structure: Single	-2.883	-3.597	-1.51	-3.203
	[1.917]	[1.541]**	[2.172]	[2.168]
FC born in cohabiting union	7.473	4.357	-1.207	-0.949
	[2.729]***	[2.797]	[3.013]	[2.569]
FC born to single mother	5.681	3.908	3.94	2.932
	[2.631]**	[2.401]	[2.726]	[2.070]
# of transitions FC exp'd	2.88	2.291	3.474	2.53
	[1.143]**	[1.094]**	[1.054]***	[1.050]**
rcvd high school diploma, w1	-1.678	-2.227	0.928	1.835
	[1.557]	[1.511]	[2.027]	[1.793]
Household size	-0.215	-0.385	-0.743	-0.561
	[0.568]	[0.577]	[0.848]	[0.618]
Mother's age	-0.037	0.091	0.039	0.042
	[0.181]	[0.172]	[0.181]	[0.154]
Child's age in years	0.133	-0.073	0.426	0.413
	[0.225]	[0.227]	[0.241]*	[0.200]**
Child is male	-3.282	-2.05	-0.849	-0.485
	[1.762]*	[1.617]	[2.322]	[1.921]
Child born in Puerto Rico			-3.929	-3.427
			[2.540]	[2.034]*
Mother speaks Eng very/pretty well or native		-5.000		1.38
		[2.601]*		[1.390]
Domestic Violence Frequency in last yr, t-score		2.233		-2.687
		[2.909]		[3.450]
BSI Total Score, t-score		2.248		1.127
		[0.574]***		[0.738]
out-of-wed chbearing stigma scale		-2.28		-3.233
		[1.604]		[1.336]**
trust/marr scale		-4.068		-0.577
		[1.943]**		[1.632]
Financial Strain		1.43		3.924
		[1.013]		[1.408]***
Mother employed		-3.747		-1.089
		[1.137]***		[1.894]
Constant	51.992	71.727	48.183	55.212
	[5.848]***	[7.998]***	[7.404]***	[6.893]***
Observations	232	232	269	269
Number of nhhid	89	89	101	101

Standard errors in brackets

* significant at 10%; ** significant at 5%; *** significant at 1% (two-tailed tests)

Source: Three-City Study, waves 1 to 3

Table 5. Generalized estimating equations predicting focal children's externalizing behavior problem scores for Dominican-origin children, foreign-born mothers only

	Simple	Full
Current structure: Cohabiting	-1.828	-2.997
	[2.579]	[2.753]
Current structure: Single	-0.26	-0.79
	[2.873]	[3.050]
FC born in cohabiting union	0.534	-0.595
	[3.252]	[3.234]
FC born to single mother	1.179	-0.106
	[1.846]	[1.985]
Mother's age at migration (centered at 18)	0.089	0.136
	[0.184]	[0.143]
Age at migration*FC born in cohabiting union	-0.624	-0.63
	[0.275]**	[0.274]**
# of transitions FC exp'd	1.512	1.12
	[1.567]	[1.478]
Mother received HS diploma (wave 1)	-1.515	-2.382
	[2.030]	[1.706]
Household size	-0.138	-0.011
	[1.079]	[1.057]
Mother's age	-0.156	-0.139
	[0.262]	[0.222]
Child's age in years	0.195	0.128
	[0.249]	[0.232]
Child is male	-6.392	-6.145
	[1.486]***	[1.301]***
Child is foreign-born	-5.285	-5.371
	[2.562]**	[2.476]**
Mother speaks Eng very/pretty well or native		0.538
		[2.214]
Domestic Violence Frequency in last yr, t-score		3.66
		[6.993]
BSI Total Score, t-score		1.541
		[0.704]**
out-of-wed chbearing stigma scale		-3.941
		[1.332]***
trust/marr scale		-0.192
		[1.481]
Financial Strain		-0.347
		[1.087]
Mother employed		1.157
		[1.144]
Constant	58.58	64.475
	[9.696]***	[9.457]***
Observations	267	267
Number of nhhid	98	98

Standard errors in brackets
* significant at 10%; ** significant at 5%; *** significant at 1% (two-tailed tests)
Source: Three-City Study, waves 1 to 3

Table A1. Descriptive statistics for dependent variables and independent variables other than measures of family structure

	U.S.-born		Foreign-born			Mexican-origin		Puerto Rican-origin		Dominican-origin		
Mother is Mexican-origin	0.745	0.436	0.384	0.487								
Mother is Puerto Rican-origin	0.247	0.432	0.313	0.464								
Mother isDominican origin	0.008	0.089	0.304	0.460								
Mother is foreign-born						0.317	0.466	0.533	0.500	0.971	0.167	
Child's CBCL externalizing behavior score												
Wave 1	52.840	10.868	51.394	11.008		51.515	10.866	53.900	11.273	51.012	10.413	
Wave 2	51.635	11.119	49.668	11.282	*	49.875	11.602	53.361	10.174	48.835	10.913	*
Wave 3	53.798	10.433	53.537	11.075		53.427	11.007	55.370	9.855	51.524	10.827	*
Mother has a HS diploma (wv 1)	0.458	0.499	0.432	0.496		0.403	0.491	0.497	0.501	0.514	0.502	*
Household size												
Wave 1	4.249	1.534	4.369	1.580		4.536	1.659	4.086	1.328	3.829	1.376	*
Wave 2	4.488	1.577	4.527	1.589		4.740	1.696	4.294	1.315	4.000	1.407	*
Wave 3	4.568	1.644	4.190	1.518	*	4.700	1.707	4.152	1.388	3.629	1.120	*
Mother's age												
Wave 1	30.172	8.000	33.872	8.118	*	31.803	8.639	30.985	7.738	34.162	7.312	*
Wave 2	31.563	7.996	35.155	8.119	*	33.147	8.625	32.345	7.730	35.448	7.306	*
Wave 3	35.968	8.066	39.658	8.124	*	37.572	8.678	36.817	7.809	39.962	7.267	*
Focal child's age												
Wave 1	6.107	5.152	7.345	5.160	*	6.550	5.235	6.964	5.187	6.743	5.038	
Wave 2	7.984	5.153	9.149	5.131	*	8.408	5.239	8.802	5.132	8.533	5.010	
Wave 3	12.418	5.191	13.607	5.174	*	12.826	5.280	13.284	5.153	13.019	5.090	
Focal child is male	0.472	0.500	0.458	0.499		0.491	0.501	0.396	0.490	0.495	0.502	
Focal child is foreign-born	0.021	0.145	0.179	0.384	*	0.052	0.221	0.112	0.316	0.238	0.428	*
Mother speaks Eng. well/native	0.960	0.197	0.429	0.496	*	0.781	0.414	0.812	0.392	0.229	0.422	*
Mother's exp. of domestic viol. in last 12 months (t-score, range 0-1.710)												
Wave 1	0.205	0.318	0.100	0.227	*	0.186	0.302	0.130	0.261	0.083	0.225	*
Wave 2	0.182	0.309	0.092	0.216	*	0.162	0.282	0.139	0.296	0.052	0.140	*
Wave 3	0.156	0.288	0.075	0.198	*	0.145	0.282	0.106	0.226	0.036	0.143	*
Worry about nonmarital childbearing stigma (1-4 higher score=more worry)	2.082	0.572	1.951	0.594	*	2.142	0.559	1.876	0.557	1.819	0.624	*

Table A1. Descriptive statistics for dependent variables and independent variables other than measures of family structure

	U.S.-born		Foreign-born			Mexican-origin		Puerto Rican-origin		Dominican-origin		
Trust in men and marriage												
(1-4, higher score=less trust)	2.529	0.533	2.663	0.507	*	2.527	0.528	2.657	0.511	2.721	0.502	*
Financial Strain (range: -1.52 to 1.98)												
Wave 1	-0.074	0.682	-0.029	0.674		-0.074	0.677	-0.065	0.703	0.054	0.633	
Wave 2	-0.074	0.682	-0.099	0.670		-0.079	0.700	-0.143	0.679	-0.010	0.563	
Wave 3	-0.097	0.679	-0.125	0.723		-0.129	0.674	-0.080	0.722	-0.096	0.759	
Mother is employed												
Wave 1	0.351	0.478	0.399	0.490		0.359	0.480	0.320	0.468	0.533	0.501	*
Wave 2	0.532	0.500	0.518	0.500		0.546	0.498	0.397	0.491	0.683	0.468	*
Wave 3	0.568	0.496	0.557	0.498		0.570	0.496	0.477	0.501	0.695	0.463	*
N	373		336			407		197		105		

* Group differences are significant at the 5 percent level. Comparisons between nativity groups use Chi-square tests or t-tests; comparisons between ethnic groups use Chi-square tests or ANOVA. Source: Three City-Study, waves 1 to 3.