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Cohabitation and Children's Externalizing Behavior in Low-Income Latino Families

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Abstract

We consider the association of cohabitation experience with externalizing behavior among children of Latina mothers whose ethnic origin is in Mexico, Puerto Rico, or the Dominican Republic. Data were drawn from three waves of the Three-City Study (N=656 mother-child pairs). Children of Mexican-origin mothers had higher externalizing problems in childhood and adolescence when their mothers were born in the United States or immigrated as minors. For children of Caribbean-origin mothers, being born to a cohabiting or married mother had a statistically equivalent association with externalizing behavior when mothers were born outside the mainland United States (Dominican and island-born Puerto Rican mothers). Children of mainland-born Puerto Rican mothers had more behavior problems when their mothers cohabited at birth.

Keywords

Cohabitation; Externalizing behavior; Family structure; Latinos

Increasingly, cohabitation is a context for family formation. By the late 1990s, approximately 18 percent of all births in the United States and more than half of nonmarital births were to cohabiting parents (Kennedy & Bumpass, 2008), and about 40 percent of children were expected to spend some time residing in a cohabiting couple household before age 16 (Bumpass & Lu, 2000). As cohabiting families have become more common, social scientists have sought to understand how cohabitation influences child well-being. A recent body of research has documented that children born to or raised by cohabiting parents are more likely to exhibit behavior problems across the early life course (Artis, 2007; Brown, 2004; Dunifon & Kowaleski-Jones, 2002; Manning & Lamb, 2003; Nelson, Clark, & Acs, 2001). Much of the disadvantage in children's behavior is explained by the lower level of material and parental resources and higher risk of union dissolution in cohabiting households compared to married-parent households (Artis, 2007; Brown, 2004).

These explanations may be less powerful in explaining the behavior disadvantage of non-White children in cohabiting households because the profile and social context of cohabiting families varies by race and ethnicity. In particular, Latino children in cohabiting households are more likely to demonstrate emotional and behavioral problems than are children in married households (Nelson, Clark, & Acs 2001), but Latino cohabiting and married

families are more similar in terms of socioeconomic characteristics and pregnancy intention compared to other ethnic groups (Manning, 2001; Manning & Brown, 2006; Manning, Smock, & Majumdar, 2004), and there is some evidence that family formation in cohabitation is more normative among Latinos compared to non-Latino whites (Manning, 2001; Oropesa, 1996). Further, place-of-origin differences in nuptiality regimes and nativity differences in acculturation and socioeconomic characteristics potentially imply distinctive experiences of cohabitation for subgroups of Latino children, a source of variation that is masked when Latinos are grouped in a single ethnic category and compared to non-Latino whites (McLoyd, Cauce, Takeuchi, & Wilson, 2000; Vega, 1990).

Focusing on Latino children, we assess the utility of explanations that have been put forward to explain the behavior disadvantage experienced by children with cohabiting parents and consider to what extent our findings align with an argument about variation in the *institutionalization of cohabitation* among Latinos. Specifically, we focus on the association of cohabitation experience with externalizing behavior among children of low-income mothers whose ethnic origin is in Mexico, Puerto Rico, or the Dominican Republic. We describe the variation among Latino children on two axes - ethnicity and mother's nativity. We discuss differences in the social location of cohabitation in places of origin and investigate the extent to which mothers' attitudes about marriage and nonmarital childbearing, social connectedness, family complexity, and union stability explain any behavioral disadvantage among children with cohabiting parents. Our analysis draws on data from a longitudinal study of low-income families with children age 0 to 4 or 10 to 14 who were residing in Boston, Chicago, and San Antonio in 1999.

Children's externalizing behavior problems, our outcome of interest, are defined by aggression, hyperactivity, bullying, conduct disorder, defiance, and/or violent behavior, and are more common among boys than girls. Behavior problems are of interest as indicators of successful functioning in childhood and adolescence and as predictors of successful transitions to adulthood (Caspi, Elder, & Bem, 1987; Kaiser & McLeod, 2004; Miech, Caspi, Moffitt, & Wright, 1999). Externalizing behavior problems may be of particular interest to scholars of Latino youth because externalizing behavior in childhood and adolescence is associated with lower educational attainment (Miech et al., 1999). Latino youth are at an elevated risk of school dropout compared to non-Latinos (Laird, Cataldi, KewalRamani, & Chapman, 2008): approximately 22 percent of Latino youth aged 16–24 are high school dropouts, compared to a national average of 6.6 percent among non-Latino youth.

Background

Public opinion data from the General Social Survey indicate that Americans tolerate cohabitation as a union type for childless adults, but perceive marriage as the appropriate setting for childrearing (Davis, Smith, & Marsden, 2007). Cohabitors themselves share this conflicted view, with many new parents in cohabiting unions holding positive views of marriage and saying they would like to marry eventually (Carlson, McLanahan, & England, 2004). In theorizing about the distinctiveness of cohabitation as a family form in the United States, scholars have pointed to the lack of social norms governing the behavior of cohabiting partners, their children, and the kin and social network members connected to each partner in the union (Cherlin, 2004; Nock, 1995). Because of the absence of normative expectations about how cohabiting unions should operate, these unions are hypothesized to exhibit more pervasive family conflict, weaker social connectedness, and a higher rate of dissolution compared to marriage (Nock, 1995).

These predictions are largely borne out in the United States. When children are conceived in and born into cohabiting unions, they are more likely to experience the end of that union than are children born into marriages (Manning, 2004), and despite new cohabiting parents' intentions to marry, half of children born to cohabiting parents in urban areas experience the end of their parents' union by age three (Osborne & McLanahan, 2007). Cohabiting couples also report lower quality relationships with kin (Nock, 1995) and perceive fewer intergenerational exchanges of support (Eggebeen, 2005) compared to married couples. Cohabiting unions also may have complex structures, involving partners who bring children from other unions and introducing relationship dynamics between new partners, former partners, and children that lack socially-defined boundaries and terminology (Cherlin, 2004).

In prior research, attributes of cohabiting unions that indicated low institutionalization were associated with children's elevated risk of exhibiting externalizing behavior problems. In cohabiting stepfamilies, a context in which parents may be frustrated by incomplete role definition, parents exhibited aggravation and poorer parenting quality that was associated with young children's diminished psychosocial development (Artis, 2007; Brown, 2004). More frequent union dissolution and ongoing union instability among parents who were cohabiting compared to married at their child's birth were also predictive of increased behavior problems (Osborne & McLanahan, 2007). Finally, lower levels of social connectedness in cohabiting families also potentially contribute to children's diminished emotional health where children and parents lack kin contact as an emotional and financial resource during disruptive or stressful periods at home (Mason, Cauce, Gonzales, Hiraga, & Grove, 1994; Taylor, 1996).

There is evidence that cohabitation may be more institutionalized among some Latino subgroups compared to the general population of the United States. Nonmarital births among Latinos occur more frequently in cohabiting unions (Bumpass & Lu, 2000; Chandra, Martinez, Mosher, Abma, & Jones, 2005; Wildsmith & Raley, 2006) and births to Latino cohabiting couples are more likely to be intended (Manning, 2001; Musick, 2002). Latino couples who are cohabiting at the time of a child's birth are also more likely to continue cohabiting than to transition to marriage than are non-Latino whites (Manning, 2001; 2004). Relative to children with married parents, children born to cohabiting Latino parents are also less disadvantaged materially than are children born to cohabiting non-Hispanic white parents (Manning & Brown, 2006). Finally, compared to non-Latinos, Latinos in the United States are more supportive of cohabitation as an alternative to marriage and are less likely in public opinion data to agree with the assertion that people who want children should marry first (Davis et al., 2007; Oropesa, 1996). However, opinions on this last point appear to diverge among Latinos, with Mexican-origin women more likely than Puerto Rican or Dominican women to report a perception of stigma attached to nonmarital childbearing in a sample of low-income mothers (Cherlin, Cross-Barnet, Burton, & Garrett-Peters, 2008).

Cohabitation in Latin America

The seemingly greater institutionalization of cohabitation among Latinos in the United States echoes the prevalence and nature of cohabitation in Latin America. In Central America and in 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 Chile and Argentina, cohabitation rates hover around 20 percent, far exceeding cohabitation rates in the United States (Rodriguez, 2004). As in the United States, cohabiting unions as an alternative to marriage are more common among those with less education and lower socioeconomic status in Latin America, but the historical and socioeconomic context is exceptional. Consensual unions arose during the colonial era in Latin America as a system parallel to marriage among male Spanish settlers and local women as well as among *mestizo* and indigenous couples who either could not afford a

formally sanctioned wedding or whose union violated endogamy codes imposed by colonizers (Castro Martín, 2002).

In the contemporary era, consensual unions in Latin America continue to be distinctive compared to the United States. As in the United States, consensual unions in Latin America are more likely to end compared to marriages, but overall, the dissolution rate is lower, and 30 to 45 percent of consensual unions have endured for at least 10 years (Castro Martín, 2002). Childbearing is also relatively frequent in Latin American consensual unions, and in those parts of Latin America where consensual unions are most prevalent, childbearing rates in consensual unions and in marriage are indistinguishable. Thus, consensual unions in Latin America may represent an informal alternative to marriage rather than a prelude to marriage. Landale and Oropesa (2007) posited that the history and quality of consensual unions in Latin America “set the stage for acceptance of cohabiting unions as an alternative union form (p. 391)” in the United States.

This distinctive history broadly sets Latin America apart from the United States in terms of the context of cohabitation, but among Latin American countries, there is dramatic variation in the role of cohabitation within the larger system of family organization. Among the migrant-sending areas we consider, the Dominican Republic is most strongly characterized by frequent but unstable consensual union formation in the context of a matrifocal family system. Consensual unions and nonmarital childbearing are relatively pervasive, despite longstanding cultural norms against family formation outside of marriage (Goode, 1960; Massey, Fischer, & Capoferro, 2006). In the contemporary era social, economic, and legal institutions have supported consensual unions to varying degrees in the Caribbean (Safa, 2005). Women’s achieved economic independence through increased labor force participation and a traditional reliance on extended kin networks contribute to the maintenance of consensual unions as a context for childrearing, despite relatively high levels of economic and partnership instability compared to marriage.

Family organization in Puerto Rico is similar in its matrifocality, but the female-centered context emerges from relatively high rates of divorce and nonmarital childbearing, rather than from a system of consensual unions (Massey et al., 2006). Consistent with this context, there is greater tolerance in Puerto Rico for cohabitation not resulting in marriage (compared to Mexican-American women, Oropesa, 1996) and for divorce (compared to Dominican women, Arditti & Lopez, 2005), despite the lack of formal institutional supports available to unmarried women and their children. These norms are reflected in the United States, where first- and second-generation Puerto Rican cohabitators describe their unions as akin to marriage and are more likely than non-Latino whites to continue cohabiting than to transition to marriage after the birth of a child (Landale & Fennelly, 1992; Manning & Landale, 1996).

In Mexico, a moderate percentage of couples reside in consensual unions, and prevalence has increased during the last 20 years as urban, more highly-educated women have begun to enter consensual unions and to delay marriage. Despite this trend, Mexico remains strongly pronuptial with a relatively patriarchal family structure. A system of nearly universal early union formation persists despite dramatic declines in fertility and increases in women’s education and labor force participation during the last forty years. Marriage remains the norm, divorce is relatively uncommon, and remarriage is rare outside of widowhood (Fussell & Palloni, 2004). In the United States, immigrants from Mexico marry earlier than those who remain in Mexico, but marriage rates decline and childbearing in cohabitation becomes more frequent in the second generation (Osborne, Manning, & Smock, 2007; Raley, Durden, & Wildsmith, 2004).

Nativity Differences

A substantial literature has documented the effects of assimilation and acculturation on family organization for immigrants and their descendants (Angel & Tienda, 1982; Raley et al., 2004; Van Hook & Glick, 2007). In the main, Latino immigrants settle in married nuclear household structures with time in the United States, but their children are more likely to cohabit and to delay marriage. However, immigrants' adaptation to the United States is shaped by individual factors like age at entry and human capital as well as by structural factors like place of origin, legal status, destination area, and location within systems of racial and ethnic stratification (Portes & Bach, 1985).

As a result, the adaptation process of immigrants and their descendants may vary by place of origin in ways that have consequences for marriage, cohabitation, and childbearing, with distinctive consequences for children's behavior. Of particular relevance to the groups we compare, Puerto Ricans are the only ethnic group to arrive routinely on the U.S. mainland as citizens, and Mexican immigrants are more likely than Dominicans to enter the United States without legal documentation (Passel & Clark, 1998). Compared to Mexicans, the assimilation process for Puerto Ricans and Dominicans of African descent is distinctive because of Americans' perception of Afro-Caribbean immigrants as ethnically Black, rather than as Hispanic (Waters, 2001). Finally, although the three groups have similar levels of poverty, Mexicans have lower educational attainment compared to the other groups (Pew Hispanic Center, 2009).

Research Hypotheses

Our analysis is driven by three research hypotheses. First, we anticipate that variation at origin in the prevalence of cohabitation and in norms about nonmarital family forms more generally will contribute to variation in the prevalence and context of cohabitation for children of Puerto Rican, Dominican, and Mexican mothers in the United States. Specifically, we expect to find that *experience in a cohabiting union will occur more often among children of mothers born in Caribbean sending areas* (i.e., Puerto Rico and the Dominican Republic), where matrifocal family organization predominates in a nuptiality regime with fewer normative enforcements, compared to children of Latina mothers of Mexican origin or Caribbean-origin mothers born in the United States.

Second, we anticipate that *experience in a cohabiting union compared to marriage is less likely to be associated with elevated externalizing behavior scores for children whose mothers are immigrants from Puerto Rico or Dominican Republic* compared to children whose mothers are from Mexico or whose mothers were born in the United States. This hypothesis is based on the expectation that cohabiting families exposed to contexts where cohabitation is institutionalized are less likely than cohabiting families from more pronuptial contexts to exhibit attributes like family complexity, union instability and low social capital that are associated with children's externalizing behavior problems.

Following from that expectation, our third hypothesis anticipates that *indicators of the institutionalization of cohabitation will explain group differences by place of origin and nativity in the association between cohabitation experience and children's externalizing behavior*. These indicators include (a) a mother's sense of social connectedness, (b) family complexity in terms of extension and the membership of children who are not full siblings of the focal child and the financial contributions from extended kin living in the household, (c) attitudes about marriage and nonmarital childbearing, and (d) mother's union stability, as represented by union status at each wave and the number of union changes she makes between waves.

Method

We used 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 after welfare reform. 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 years 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 was 75 percent, and the wave 1 to wave 3 retention rate was 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, & Wilson, 1999). An oversample of Latino household heads is included ($n=1,137$ at wave 1), and Latina caregivers were asked to specify their ethnicity (whether Cuban, Dominican, Mexican, Puerto Rican, or other). All caregivers indicated whether they were foreign-born. The most common foreign countries of birth among Latinas were Mexico and the Dominican Republic. We restricted our analysis to children cared for continuously by a biological mother who identified as Latina of Mexican, Dominican, or Puerto Rican origin and who participated in each survey wave. The sample size for analysis was 656 child-mother pairs.

To assess behavior problems, we used scale scores from the Child Behavior Checklist (CBCL) and Adult Behavior Checklist (ABCL) (Achenbach, 1991), common psychometric assessments used to identify externalizing and internalizing behavior problems in children and adults. The CBCL and ABCL were administered to caregivers of focal children at each wave of the study, and scores for internalizing, externalizing, and total behavior problems are available. Different versions of the CBCL were administered to caregivers of children aged 2 to 3 or 4 to 18. Our analysis excludes children who were younger than 2 at wave 1. The ABCL was administered at wave 3 to caregivers whose children were over 18. Age-standardized CBCL/ABCL scores allow comparisons across age groups and instruments. The alpha reliability scores for externalizing behavior scores in the analytic subsamples were above .90.

Independent Variables

Nativity and ethnicity—Nativity was based on mother's self-report of whether she was born in the United States, in a U.S. territory, or in a foreign country. To account for periods of exposure to family structure regimes in places of origin or the United States, our multivariate models specified whether a foreign-born mother entered the mainland United States by age 18 or entered as an adult. Mother's ethnicity is based on self-report and on place of birth. Women born outside of the United States are classified ethnically by their country of birth. Among women born in the United States, we used self-reported ethnicity in response to a closed-ended question about Hispanic subgroup membership. Women who volunteered more than one ethnicity in an open-ended "other" response category were coded into one of our three categories if their response indicated that at least part of their ethnic identity included a Mexican, Puerto Rican, or Dominican background. Ninety-five percent of ethnic Dominican women were foreign-born. Our analysis excluded Dominican women who were born in the United States because the small sample size (fewer than 10 observations) provides little within-group variation.

Family Structure—Two dimensions of family structure were included in the initial model: family structure at birth and family structure at the time of each interview. Family structure at birth (specifically, the comparison between being born to a single or cohabiting mother versus being born to a married mother) represented the child's baseline experience. Data on family structure at the child's birth were derived from the mother's report at wave 1 and, for ambiguous cases, from a marriage and cohabitation history reported at wave 3. Family structure at interview was derived from the household roster at each wave. It is indicative of the immediate instrumental, economic and affective resources available to a child from parents.

Indicators of Institutionalization of Cohabitation

Social connectedness—Social connectedness was measured by a 4-item index where a higher score indicated greater perceived access to a social network that can provide instrumental, emotional, and financial assistance. The battery of questions in the index was administered at each survey wave. Respondents were asked whether they had enough people to count on, too few people to count on, or no one to count on when they were feeling low, needed child care, needed small favors, or needed a loan in an emergency. The alpha scores for these four items ranged from .81 to .83 for the three waves. We note that these indicators of social connectedness describe perceived rather than actual support. The utility of families' social networks may be overestimated by measures of potential support if access to actual need is less than respondents anticipate. However, we are primarily concerned with Latina mothers' sense of social connectedness, rather than with their need to convert connections into instrumental capital. We expect that cohabitators from settings where cohabitation is a more institutionalized family form will have a stronger perception of social connectedness.

Family complexity and household economic contributions—Family complexity was represented by coresidence with any extended kin and stepsiblings. Extended kin coresidence was measured from the household roster reported at each interview wave. We expect that cohabitators from settings with a more institutionalized cohabitation regime will be more likely to reside in vertically or laterally extended kin arrangements as a strategy for economic and social organization, compared to cohabitators from regimes where marriage and nuclearization predominate. To determine the economic impact of coresidence with kin, we also included the logged value of total household income contributed by household members other than the focal child's mother. Coresidence with stepsiblings represented family complexity emerging from multiple changes in a parent's union status. From the household roster at each wave, we created a count of the number of children in the household who were identified as stepsiblings or half siblings to the focal child. Where the child's mother was in a cohabiting union, the count included children who were biologically unrelated to the focal child or mother, assuming that these children were related to the cohabiting partner.

Attitudes about marriage and nonmarital childbearing—We expected that children whose cohabiting mothers belonged to place-of-origin groups with more tolerant attitudes about nonmarital childbearing and less emphasis on the unique significance of marriage would have relatively fewer externalizing behavior problems compared to children whose cohabiting mothers belonged to place-of-origin groups with more pronuptial views. We used two measures developed for the third wave of the Three-City Study. The first was a scale that indicated the respondent's perception of the stigma of nonmarital childbearing. The scale included Likert-style responses to the following four items: "Having a child without being married is embarrassing for a woman," "A woman should have children if she wants to, even if she is not married," "Having children when a woman is single hurts her chances of later getting married," and "A woman does not need to be married before having a child." The scale had an alpha reliability of .68. Items were selectively reverse-coded so that a

higher score indicated greater worry about a perceived stigma attached to nonmarital childbearing. The second indicator measured agreement with the statement, “It is not important for a woman to get married.” Responses to that item were reverse-coded and a higher value represented stronger agreement with the statement.

Union Stability—In addition to family structure at birth and at each wave, we introduced the number of family structure transitions a child had experienced as a measure of instability, which has been found to have a positive, independent effect on children’s externalizing behavior above and beyond “snapshot” measures of family structure (Cavanagh & Huston, 2008; Fomby & Cherlin, 2007; Osborne & McLanahan, 2007). Family structure transitions were defined as the entry or departure of a mother’s spouse or cohabiting partner from the child’s household. The count of family structure transitions was derived from a marriage and cohabitation history collected at wave 3 and included relationships that began and ended between waves and relationships prior to wave 1. Prior work has indicated that family instability occurring across the early life course was associated with children’s externalizing behavior (Fomby & Cherlin, 2007). We anticipate that more stable cohabiting unions would be associated with children’s fewer externalizing behavior problems, but are agnostic about which ethnic/native group will evidence the greatest stability. The duration of Caribbean cohabiting unions is highly variable, and while union dissolution among Mexican-origin married couples is quite low, there is little information available regarding the duration of cohabiting unions in Mexico or among Mexican-Americans.

Control variables—Four measures of economic stress were included to capture ethnic variation in settlement and assimilation experiences. The first was an index of financial strain, including problems with paying bills on time, budget shortfalls, and food scarcity. This index represents acute financial pressure, rather than a measure of embedded hardship or poverty. Second, we included a dichotomous indicator of whether the child’s mother was working at all in the month of interview. The third measure was whether the mother had earned a high school diploma or general equivalency diploma (GED) by wave 1. A dichotomous measure indicated whether the mother spoke English pretty well or very well (including as a native speaker) compared to speaking English fairly, poorly, or not at all. We regard English proficiency as a human capital measure, but it also may represent acculturation to the United States more generally. In addition, our models controlled for the following characteristics: Household size; mother’s age; child’s age in years; and whether the child is male. For children with Mexican or Puerto Rican-origin mothers, we controlled for city of residence at wave 1. (All Dominican-headed households reside in Boston.) For Puerto Rican and Dominican mothers, we also controlled for mothers’ self-identification as racially Black. Nearly half of Caribbean-origin respondents selected the open-ended “other” category to describe their racial identification, a pattern consistent with Caribbean immigrants who resist the system of racial classification in the United States (Landale & Oropesa, 2002; Waters, 2001). Therefore, the proportion of respondents regarded as racially Black in the U.S. context may be underestimated.

Analytic Approach

We used multivariate regression to predict externalizing behavior scores as a function of family structure at birth, current household structure, and timing of mother’s entrance into the United States. We first considered each ethnic group in a separate model and used interaction terms to assess the effect of cohabitation status at birth for children of foreign-born mothers entering the United States as an adult or entering as a minor compared to U.S.-born mothers. We then pooled all ethnic groups in a single model to make simultaneous comparisons between groups by ethnicity and nativity.

We used generalized estimating equations (GEE) in order to pool three waves of data and to control for within-person dependence across multiple observations for an individual child. This method maximized sample size and assessed between-group differences in the association of family structure with externalizing behavior. Externalizing behavior scores were standardized with a mean of 50 and a standard deviation of 10. The GEE analysis was specified as an ordinary least squares multiple regression with robust standard errors. Multivariate analyses were weighted to be representative of children in low-income families residing in low-income neighborhoods in Boston, Chicago, and San Antonio in 1999. The GEE model allowed us to maximize sample size in some cells, but did not account for time dependence, nor did it predict developmental trajectories in the way that a fixed effects model or growth curve model would. Small sample sizes preclude us from a longitudinal analysis of that nature.

Results

Table 1 summarizes descriptive statistics by nativity status and place of origin and provides an assessment of our first research hypothesis. We expected that children with mothers born in the Caribbean would more often experience cohabitation compared to children with mothers born in the United States or of Mexican origin. This hypothesis was partially supported. Thirty percent of children with mainland-born mothers of Puerto Rican origin were born into cohabiting unions, compared to between 20 and 25 percent of other children. Nearly half of children with foreign-born Dominican or Mexican mothers were born to married parents, a similarity that obscures place-of-origin differences and likely reflects selection resulting from the emphasis on family reunification in U.S. immigration policy (Raley et al., 2004). Counter to our expectations, across the three waves, children of foreign-born Mexican mothers were as likely or somewhat more likely than children of Caribbean mothers born abroad to reside in a cohabiting union, and children of Mexican or Puerto Rican mothers born in the United States had rates of cohabitation similar to each other and to foreign-born mothers. Overall, snapshot figures suggested that group differences in exposure to cohabitation in the United States were smaller than expected based on place-of-origin differences in the prevalence and social location of cohabitation. However, children of Caribbean mothers born outside of the United States experienced more frequent changes in family structure than children of comparable Mexican mothers, and those changes were more likely to resolve into single-parent household arrangements.

Table 2 describes salient family characteristics measured at wave 1 by nativity, ethnicity, and union status at the focal child's birth. Data were pooled from three waves, and tests of group differences used robust standard errors to account for the nonindependence of observations. The table provides an initial assessment of our second and third research hypotheses. Our second hypothesis considered whether experience in a cohabiting union was less likely to be associated with elevated externalizing behavior scores for children whose mothers were immigrants from Puerto Rico or Dominican Republic, compared to children whose mothers were U.S.-born and/or of Mexican origin. The first row of the table compares average externalizing behavior scores by family structure at birth for each ethnic/native subgroup. As predicted, children of Mexican-origin mothers or U.S.-born Puerto Rican mothers had externalizing behavior scores that were 3.5 to 5 points (or one-third to one-half of a standard deviation) higher compared to children born to married mothers. These differences were statistically significant ($p < .05$). In contrast, children born to married or cohabiting island-born Puerto Rican or Dominican mothers were statistically equivalent in their distribution of externalizing behavior scores.

Our third hypothesis considered whether indicators of the institutionalization of cohabitation would explain group differences in the association between cohabitation experience and

children's externalizing behavior. The hypothesis would be supported if children born to Mexican-origin and U.S.-born Puerto Rican cohabiting mothers were significantly different from children born to married mothers on the dimensions of institutionalization that we consider (social connectedness, coresidence with stepsiblings, attitudes about marriage and nonmarital childbearing), whereas children of island-born Puerto Rican and Dominican cohabiting mothers were comparable to those with married mothers. Dominican cohabiting families stood out as being relatively more institutionalized, with similar levels of social connectedness and household incomes compared to married families, more frequent coresidence with extended kin, lower perceptions of stigma about nonmarital childbearing, and more support for the statement that it is not important to marry.

Among those subgroups expected to exhibit less institutionalization in cohabitation, mainland-born Puerto Rican mothers who cohabited at birth ran contrary to the patterns expected by our hypothesis: they exhibited less union instability, more social connectedness, and more extended kinship in the household compared to similar married mothers. They also perceived less stigma attached to nonmarital births and indicated greater support for the statement that marriage is not important. Children born to cohabiting, foreign-born Mexican mothers were somewhat more consistent with the hypothesis: they experienced less social connectedness, more frequent coresidence with half siblings, and lower household incomes compared to children with married mothers. Children with U.S.-born cohabiting and married Mexican mothers were statistically similar on indicators of institutionalization.

Multivariate analysis

Table 3 presents results from stepwise multivariate regressions assessing group differences in the association of cohabitation experience with children's externalizing behavior. Results are presented for children of Mexican-origin (panel A), Puerto Rican-origin (panel B), and Dominican-origin mothers (Panel C) separately. The baseline model presented in each panel included indicators of family structure at birth, current household structure, and nativity status. The second column of each panel added interaction terms between family structure at birth and mother's nativity status. For children of Mexican and Puerto Rican mothers, there were separate interaction terms for foreign-born mothers who entered the United States as minors or as adults. Because all Dominican mothers in the sample were foreign-born, interaction terms compared adult entrants to mothers who entered the United States as children. (Interaction terms between current family structure and nativity were nonsignificant for all ethnic subgroups and were not included here.) In each panel, the third column included covariates representing social connectedness, family complexity, logged household income, attitudes about marriage and nonmarital childbearing, union instability, socioeconomic status, and where appropriate, city of residence and mother's racial identification. In the interest of space, coefficients and standard errors associated with control variables are not presented. Our results were similar in magnitude when we evaluated children and adolescents separately.

Overall, children of *Mexican-origin mothers* who were born into a cohabiting union had predicted externalizing scores nearly 4 points higher compared to children born to married mothers before accounting for nativity-specific effects (Panel A, column 1, $B=3.875$, $p<.01$). When interaction terms between mother's nativity and union status at birth were included (column 2), the main effect of being born to a cohabiting mother remained statistically significant at $p<.01$, and the interaction terms for children of mothers who were foreign-born were statistically nonsignificant. That is, children born to Mexican-origin cohabiting mothers were equally likely to have higher predicted externalizing behavior scores compared to children born to married mothers, regardless of their mothers' nativity status.

This interpretation changed when factors associated with institutionalization were included in the full model (column 3). The main effect of cohabitation status increased in magnitude by almost 20 percent, and the negative interaction term between cohabitation status at birth and mother's entry to the United States as an adult increased by a similar amount. The increase in the magnitude of the main effect with other factors controlled for indicates that cohabitation would be associated with more externalizing behavior problems for children of U.S.-born parents in the absence of protective factors. Conversely, the statistically significant and more negative interaction term indicated that the predicted behavior problem scores for children of foreign-born adult entrants would be more similar to those of children with married parents in the presence of greater social connectedness.

Among children born to *Puerto Rican mothers* (Panel B), the baseline model indicated that children born to a cohabiting mother did not have significantly different predicted externalizing behavior problem scores compared to children born to married mothers. But in the interaction model (column 2), children of mainland-born and island-born Puerto Rican mothers diverged. A child whose mother was born on the U.S. mainland and who was cohabiting at the child's birth had a predicted behavior problem score almost 10 points higher (nearly a full standard deviation) than children born to a married mother, all else held constant. The interaction term between mother's entry to the U.S. mainland as a minor and her cohabitation status at the child's birth offset this main effect ($B = -13.554$, $p < .01$). A post hoc linear combination test indicated that for children with island-born Puerto Rican mothers who arrived on the mainland before adulthood, the effect of being born to a cohabiting mother on externalizing behavior was statistically equivalent to being born to a married mother. The interaction term for mothers who arrived on the U.S. mainland as adults was also negative, but statistically nonsignificant. Sample sizes in our GEE model were small for cohabitators in each island-born group ($n = 36$ for mothers who came to the mainland as minors, $n = 33$ for those who entered as adults), so interaction terms should be interpreted with caution, but regression diagnostics found no evidence of outlier effects to explain the significant interaction term.

In the full model (Panel B, column 3), the magnitude of the main effect for cohabitation status at birth decreased slightly while the interaction terms increased in magnitude, and the negative effects of *current* nonmarital family structure became statistically significant ($p < .05$). Supplementary models showed that the changes in magnitude were attributable to attitudes regarding the stigma of nonmarital childbearing: compared to married Puerto Ricans, single and cohabiting mothers perceived less stigma. The suppressor effects implied that children's predicted behavior problem scores would be lower in unmarried families if mothers' perceptions of stigma were more like those of married mothers. This ran contrary to our prediction that attitudes supporting nonmarital family structure would have a protective effect for children in cohabiting families because those attitudes would reflect greater institutionalization.

Among children born to foreign-born *Dominican mothers* (Panel C), there was not a statistically significant difference by union status at birth in predicted externalizing behavior scores in the baseline model, and there were no apparent group differences in the effect of cohabitation status by mother's age at entry to the United States. This pattern was consistent with our second hypothesis. Factors associated with institutionalization marginally reduced the already nonsignificant magnitude of cohabitation status at birth on externalizing behavior for all Dominicans. As with children of Puerto Rican mothers, greater perceived stigma about nonmarital childbearing was independently associated with children's lower predicted externalizing behavior problem scores ($B = -4.888$). Family complexity, represented by the number of half siblings or stepsiblings in a child's household, was associated with higher predicted externalizing behavior problem scores ($B = 4.309$).

Supplementary analyses excluding potential outliers on the independent variables did not substantively alter these results.

The preceding set of models evaluated nativity differences in the association of cohabitation experience with children's behavior for separate ethnic groups and shows that indicators of institutionalization operated differently across subgroups. To test for group differences by place of origin and nativity simultaneously, we pooled the complete sample in a full model that included three-way interactions between place of origin, nativity (broken out by age at entry), and union status at birth. The comparison group in the pooled model was U.S.-born ethnic Mexican mothers, the largest subgroup in our sample.

Table 4 summarizes the pertinent results. The table shows chi-square statistics resulting from tests of the null hypothesis that sets of coefficients emerging from the three-way interaction model were statistically equivalent. Specifically, we tested the equivalence of the combined effect of cohabitation status at birth, ethnicity/nativity, and their interaction for each ethnicity/nativity comparison. The table notes significantly different combinations of coefficients for the groups compared and the direction of the combined effect compared to children of U.S.-born ethnically Mexican mothers. Compared to children with U.S.-born Mexican mothers (column 1) and mothers who entered the United States from Mexico as minors (column 2), the association of cohabitation status at birth with externalizing behavior was significantly lower for children of Mexican mothers entering the United States by age 18, Puerto Rican mothers who entered the mainland before age 18, and Dominican mothers. Cohabitation at birth was also associated with higher externalizing behavior scores for children of Mexican-born mothers who entered the United States as minors and for mainland born Puerto Rican mothers compared to all other subgroups (columns 2 and 4). Among Caribbean immigrants to the U.S. mainland and Mexican-origin mothers who entered the United States as adults, the association of cohabitation status with externalizing behavior compared to marriage was statistically equivalent.

Discussion

We investigated place-of-origin and nativity differences in the association between cohabitation experience and externalizing behavior for children born to low-income Latina mothers. We anticipated that cohabitation experience would be associated with fewer behavior problems for children raised in social contexts where cohabitation had adopted the characteristics of a social institution akin to marriage. Families in our study resided in low-income neighborhoods in three U.S. cities in 1999 and were observed at three timepoints over a six-year period. The data provided a rare opportunity to assess variation among Latinos by ethnic origin and nativity, but this advantage is offset by the limited generalizability only to low-income Latinos residing in three U.S. cities. As a result, children of foreign-born Latinas were compared to a selective group of U.S.-born Latinas that has achieved relatively little economic success. The behavior problems of children whose mothers who were born into poverty or who fell into poverty in the United States may result from processes that co-occur with but are distinct from mothers' cohabitation.

Our analysis addressed three hypotheses. First, we anticipated that living in a cohabiting family at birth or later in childhood would be more frequent among children whose mothers were of Caribbean compared to Mexican origin. This hypothesis was partially supported: children with Puerto Rican mothers were more likely to be born into a cohabiting union compared to children with Mexican mothers, but rates of cohabitation were low among Dominican mothers. We conclude that their relatively low cohabitation rates were attributable to family reunification preferences in U.S. immigration policy, which select married rather than cohabiting couples into the United States. However, Caribbean-origin

children were more likely than Mexican-origin children to settle in single-parent households over time, mirroring broad differences in family structure regimes in places of origin.

Second, we expected that children with cohabiting mothers born in the Caribbean would be less likely to exhibit externalizing behavior problems compared to children of mothers born in Mexico or in the United States. This hypothesis was generally supported. In split models, we found that children of U.S.-born Mexican and Puerto Rican mothers experienced elevated behavior problems when their mother was cohabiting at birth. Children born to Dominican cohabiting mothers or to Puerto Rican cohabiting mothers who entered the United States by age 18 were similar to children born to married mothers in their same ethnic group. In a pooled model that compared all ethnic and nativity groups simultaneously, children born to cohabiting mothers had lower predicted behavior problem scores when their mothers were born in the Caribbean, compared to when they were born in the United States or entered from Mexico as minors.

One finding contradicted our hypothesis. In our full models, children's predicted behavior problem scores were lower where cohabiting mothers were Mexican-born and entered the United States as adults compared to children of other ethnic Mexican mothers, and were comparable to scores for children with foreign-born Caribbean-origin mothers. We expected that adult immigrants' longer exposure to the pronuptial regime that dominates in Mexico, coupled with limited time in the United States, would culminate in lower institutionalization of cohabitation and more frequent child behavior problems. It is worth noting that while childbearing in cohabitation is less common in Mexico compared to the Caribbean, it is still more pervasive than in the United States, so cohabitation may be broadly more institutionalized across Latin America. Further, unmarried Mexican women who enter the United States as adults may differ in ways we have not captured here, and may be less sensitive to the institutionalization of family forms. Prior work has demonstrated that Mexicans residing in the United States are distinctive from those who remain in Mexico with regard to marriage and household organization, a pattern that may carry over to our findings (Raley et al., 2004; Van Hook & Glick, 2007), and highlights the need for binational research.

Finally, we considered whether indicators of the social institutionalization of cohabitation would explain group differences in the association of cohabitation status with children's behavior. These indicators included union instability, social connectedness, family complexity, and attitudes about family forms. Social connectedness partially attenuated any negative association of cohabitation status at birth, but among cohabitators, only Dominican and U.S.-born Mexicans had relatively high levels of social support. We anticipated that children whose cohabiting mothers' attitudes supported nonmarital forms would be insulated from negative perceptions of cohabitation in the broader culture, but our findings suggested the opposite: among Puerto Rican and Dominican families, children's predicted externalizing behavior scores were lower when their mothers held more pronuptial attitudes. We discuss this more below.

Other than these findings, the indicators of institutionalization that we tested had relatively little explanatory power. In sum, we have documented a pattern of group differences in the association of cohabitation with children's behavior that is consistent with a theory of social institutionalization, but the indicators of institutionalization that we considered mostly did not operate in a way consistent with the theory. Indicators that more precisely measure exchanges of labor and resources within and across households may better capture salient place-of-origin and nativity differences in family process among married and cohabiting families. Importantly, most of our indicators capture family process at interview, rather than at the time of the child's birth, so perhaps it is not surprising that these indicators of current

process cannot explain the long-term effect of family structure circumstances present at the time of a child's birth. In analyses considering only younger children, we did not find that the factors we considered had greater explanatory power to attenuate the effect of cohabitation status or nativity. Small sample sizes for some groups also might have hampered the analysis. Group differences on indicators of institutionalization shown in table 2 might have been statistically significant in a larger sample but were nonsignificant here.

Why is cohabitation status at birth more strongly associated with later behavior problems for some children than is union status in childhood? While childbearing in a cohabiting union is more normative among Latino compared to non-Latino families in the United States, the event is still selective. The association we observe may be explained in part by pre-existing traits, including mother's material circumstances and opportunities at the time of her child's birth, her prior fertility with another partner, and her own behavior patterns, all of which may be associated with her union status at birth and her child's tendency to exhibit externalizing behavior. This selectivity may explain why for some groups, cohabitation status at birth has an effect that endures into adolescence. A mother's later phase of cohabitation may be less selectively tied to prior traits. Cohabitation in later childhood also may be more heterogeneous, including partners who are social fathers or biological fathers to children. Our small sample sizes did not allow us to describe cohabitation status by father type, a limitation that potentially masks within-group variation. Our results were similar when we included only younger children in our analysis.

One strength of our study was the inclusion of maternal attitude measures toward the importance of marriage and the stigma attached to nonmarital childbearing. However, those measures performed contrary to our expectations. Our initial conjecture about how attitudes would operate may have been misplaced. Perhaps cohabiting mothers with more pronuptial attitudes are those who have the greatest confidence that their unions will develop into marriages, a positive attitude that may carry over to influence child behavior. Further, our analyses included measures of attitudes at wave 3. Mothers' attitudes are likely influenced by prior experience so that observed attitudes are a product of prior union status, rather than the other way around. In particular, cohabiting Caribbean mothers who perceive more stigma attached to nonmarital childbearing may have once been on the receiving end of stigma, and might be monitoring and shaping their children's behavior to prevent them from becoming unmarried parents. Finally, there is another way of thinking about attitudes. We expected that at the individual level, a cohabiting mother's validation of her own union status would have positive effects on children. However, given our emphasis on social norms about cohabitation, group-level attitudes and deviation from group standards may be the more salient factors. That is, if a woman attaches less importance to marriage than her peers do, it is possible that her child may act out in response to the perception that the mother is deviating from social norms. In supplementary analyses, we tested a specification using ethnic/native group means as measures of group-level attitudes and scores for mothers' deviations from group attitudes, but did not find the model to have greater explanatory power than the models presented here.

While we have accounted for nativity in our analysis, we have not explicitly modeled immigrant settlement and assimilation to explain differences in the effect of cohabitation status by mother's immigrant status. Our analysis includes indicators of socioeconomic status and human capital that are associated with settlement and assimilation, including education, English language ability, employment status, and financial strain, but none was significant in explaining nativity differences. We did, however, find differences in the association of cohabitation status with children's behavior by mother's age at entry to the United States. Certainly each ethnic group that we have considered has experienced distinctive settlement and assimilation processes that may contribute to how families adapt

to cohabitation. Most obviously, island-born Puerto Ricans arrive on the mainland as U.S. citizens, a trait that sharply distinguishes their adaptation from that of other entrants. And within ethnic groups, time in the United States, period of entry, and circumstances at entry will influence settlement experiences in ways that influence subsequent generations. We do not discount the importance of the settlement process to better understand the variation we have described, but our primary purpose is to consider the variation that emerges in response to exposure to distinctive nuptiality regimes by ethnic origin and place of birth.

In regard to our motivating question, our evidence suggests that exposure to cohabitation as a family form is not universally associated with negative child outcomes. In fact, our findings reveal that family structure as it is typically measured in the United States may not adequately describe the role of family forms in Latino children's development. For some ethnic/native subgroups, being born into a cohabiting union is similar to being born into marriage in terms of its effect on children's later externalizing behavior. By considering marriage as the benchmark in our study, our research assumes that marriage confers the most benefits, and that the benefits of a family form can be measured by the presence or absence of a married couple. We offer the possibility that the benefits of marriage we discussed previously may also come from kin networks inside and outside of the household, especially among ethnic groups with traditions of such arrangements. We are concerned with family structure and the benefits families bestow on children. However, perhaps our definition of family (in this case, two-parent, married family as the point of reference) is misplaced. Future research may be well served by considering expanded definitions of family among Latino groups, including extended kin relationships beyond the household.

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Table 1

Descriptive statistics, Three-City Study, waves 1 to 3 (unweighted) (N=656 mother-child pairs)

Variable	All		Mexican, US-born		Mexican, Foreign-born		Puerto Rican, US mainland-born		Puerto Rican, island-born		Dominican, foreign-born	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
<u>Externalizing behavior score</u>												
Wave 1	52.15	10.96	52.65	10.83	49.86	10.79	54.14	11.42	53.25	11.23	51.03	10.51
Wave 2	50.73	11.09	51.16	11.36	47.56	11.41 ^a	53.24	9.60	52.85	10.37 ^b	49.13	10.93 ^b
Wave 3	53.83	10.74	53.42	10.96	53.85	11.45	55.86	8.44	55.23	10.93	51.72	10.54
<u>Mother's ethnic origin</u>												
Mexican	0.58											
Puerto Rican	0.28											
Dominican	0.15											
Mother born outside mainland U.S.	0.48											
<u>Union status</u>												
Married, w1	0.18		0.17		0.32		0.07		0.10		0.19	
Cohabiting, w1	0.08		0.08		0.10		0.08		0.06		0.08	
Single, w1	0.74		0.76		0.58		0.84		0.84		0.73	
Married, w2	0.23		0.24		0.38		0.14		0.17		0.18	
Cohabiting, w2	0.12		0.10		0.14		0.16		0.11		0.16	
Single, w2	0.64		0.66		0.48		0.70		0.72		0.67	
Married, w3	0.26		0.29		0.39		0.18		0.18		0.19	
Cohabiting, w3	0.11		0.14		0.11		0.14		0.09		0.03	
Single, w3	0.63		0.58		0.50		0.67		0.73		0.78	
Married at child's birth	0.35		0.35		0.46		0.16		0.28		0.48	
Cohabiting at child's birth	0.24		0.25		0.21		0.30		0.23		0.20	
Single at child's birth	0.41		0.40		0.33		0.54		0.48		0.32	
<u>Union instability</u>												
Transitions to w1	0.45	0.69	0.48	0.71	0.37	0.64	0.46	0.67	0.46	0.77	0.43	0.68
Transitions to w2	0.55	0.75	0.64	0.80	0.39	0.64	0.59	0.70	0.53	0.81	0.49	0.70
Transitions to w3	0.81	0.85	0.93	0.93	0.55	0.74 ^a	0.92	0.81 ^b	0.77	0.83	0.73	0.73

Variable	All		Mexican, US-born		Mexican, Foreign-born		Puerto Rican, mainland-born		Puerto Rican, island-born		Dominican, foreign-born	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
<u>Household size</u>												
Wave 1	4.28	1.56	4.27	1.60	5.08	1.71 ^a	4.05	1.32 ^b	4.03	1.33 ^b	3.80	1.27 ^b
Wave 2	4.48	1.57	4.50	1.58	5.20	1.87 ^a	4.20	1.34 ^b	4.25	1.26 ^b	4.00	1.31 ^b
Wave 3	4.40	1.61	4.68	1.76	4.83	1.64	4.31	1.30	4.03	1.47 ^{ab}	3.59	1.10 ^{abc}
Mother's age, w1	31.97	8.32	30.60	8.42	34.58	8.74 ^a	28.25	6.34 ^b	33.22	8.15 ^c	34.33	7.31 ^{ac}
Child's age, w1	6.73	5.19	6.20	5.22	7.45	5.20	5.93	4.93	7.82	5.30	6.82	5.03
Child is male	0.47		0.48		0.51		0.46		0.35		0.49	
<u>Social networks (range=0-1)</u>												
Wave 1	0.35	0.38	0.39	0.40	0.29	0.37	0.35	0.37	0.32	0.36	0.32	0.36
Wave 2	0.36	0.39	0.41	0.39	0.36	0.42	0.35	0.38	0.29	0.35	0.30	0.37
Wave 3	0.40	0.40	0.41	0.38	0.37	0.42	0.39	0.39	0.36	0.37	0.47	0.43
<u>Household includes any extended kin</u>												
Wave 1	0.28		0.30		0.33		0.39		0.19		0.16	
Wave 2	0.28		0.28		0.38		0.28		0.23		0.19	
Wave 3	0.19		0.24		0.24		0.10		0.15		0.10	
<u>Logged income from household members</u>												
Wave 1	6.30	1.77	6.42	1.59	6.59	1.86	6.31	1.62	6.23	1.64	5.72	2.22 ^{ab}
Wave 2	6.92	1.34	6.74	1.53	6.97	1.71	7.27	0.74	7.00	0.95	6.93	0.90
Wave 3	7.21	1.13	7.29	1.04	7.36	1.15	7.20	1.34	6.93	1.27	7.07	0.95
<u>Group attitudes about marriage and childbearing</u>												
Nonmarital childbearing stigma	2.02	0.59	2.13	0.57	2.17	0.54	1.95	0.58	1.81	0.54 ^{ab}	1.83	0.64 ^{ab}
Not important to marry	2.49	0.91	2.50	0.88	2.55	0.87	2.35	0.86	2.42	0.96	2.58	1.03
Mother has at least HS diploma	0.44		0.46		0.30		0.48		0.49		0.49	
Mother speaks at least some English	0.71		0.97		0.41		0.96		0.66		0.19	
<u>Financial strain (standardized score)</u>												
Wave 1	-0.05	0.68	-0.08	0.67	-0.05	0.71	-0.03	0.73	-0.07	0.67	0.05	0.64
Wave 2	-0.08	0.67	-0.05	0.69	-0.09	0.75	-0.13	0.68	-0.16	0.64	-0.04	0.56
Wave 3	-0.11	0.70	-0.14	0.66	-0.11	0.72	0.05	0.72	-0.17	0.72	-0.12	0.77

Variable	All		Mexican, US-born		Mexican, Foreign-born		Puerto Rican, US mainland-born		Puerto Rican, island-born		Dominican, foreign-born	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
<u>Mother is employed</u>												
Wave 1	0.38		0.35		0.43		0.37		0.25		0.53	
Wave 2	0.53		0.55		0.56		0.51		0.31		0.68	
Wave 3	0.56		0.58		0.59		0.54		0.40		0.68	
n	656		259		119		83		99		96	

Table 2

Family characteristics by mother's ethnicity, nativity, and union status at focal child's birth (measures pooled over three waves, N=1,717)

	U.S.-born Mexican		Foreign-born Mexican		Mainland-born Puerto Rican		Island-born Puerto Rican		Foreign-born Dominican	
	Cohabit	Married	Cohabit	Married	Cohabit	Married	Cohabit	Married	Cohabit	Married
Child's externalizing behavior	54.64	50.60*	53.36	49.00*	56.48	51.46*	53.90	53.16	50.55	50.70
<u>Measures of institutionalization</u>										
Social connectedness	0.44	0.39	0.21	0.40*	0.38	0.22	0.25	0.34	0.41	0.33
Extended kin arrangement	0.25	0.28	0.31	0.27	0.23	0.13	0.2	0.25	0.23	0.12
Logged income from HH members	6.71	6.92	6.73	7.1	7.01	7.24	6.75	6.83	6.57	6.69
Number of step/half siblings	0.11	0.06	0.17	0.04	0.04	0.00	0.06	0.04	0.00	0.04
Attitude: nonmarital childbearing stigma	2.15	2.14	2.18	2.27	1.9	2.15	1.76	1.81	1.64	1.98*
Attitude: Not important for woman to marry	2.56	2.54	2.84	2.33*	2.36	2.31	2.48	2.5	2.68	2.37
Union transitions	0.79	0.71	0.48	0.45	0.8	0.87	1.09	0.50*	0.86	0.54*
n (statistics for single mothers not shown)	198	270	75	165	75	39	69	84	57	138

* Group differences within ethnic/native group are significant at $p < .05$

Source: Three-City Study, waves 1 to 3

Table 3

Ordinary least squares regression using generalized estimating equations, predicted externalizing behavior problems scores at waves 1–3, Three-City Study (unstandardized regression coefficients with standard errors reported in brackets)

	Mother is Mexican-origin			Mother is Puerto Rican-origin			Mother is Dominican		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Mother cohabiting at interview	3.215 [2.375]	3.471 [2.336]	2.964 [2.346]	-1.789 [2.642]	-2.148 [2.596]	-4.8 [2.340]*	-0.595 [2.466]	-0.923 [2.626]	-1.068 [2.975]
Mother single at interview	1.741 [1.374]	1.867 [1.377]	1.742 [1.599]	-2.109 [1.669]	-2.052 [1.537]	-3.71 [1.624]*	1.73 [2.631]	1.774 [2.690]	2.867 [3.170]
Child born to cohabiting mother	3.875 [1.374]**	4.137 [1.583]**	4.939 [1.537]**	3.739 [2.319]	9.625 [3.258]**	9.224 [3.012]**	-5.12 [3.122]	-4.097 [4.127]	-4.687 [3.266]
Child born to single mother	2.909 [1.665]	3.462 [1.954]	4.191 [1.850]*	5.37 [2.057]**	8.225 [2.835]**	9.108 [2.642]**	0.738 [1.909]	0.09 [2.859]	-3.054 [3.276]
Mother entered US as an adult (18)	-0.227 [2.136]	0.64 [2.451]	1.894 [2.497]	0.128 [1.750]	4.213 [3.745]	6.092 [3.587]		1.185 [2.693]	1.474 [2.494]
Mother entered US as a minor	0.666 [1.815]	-0.391 [2.237]	0.379 [2.065]	-1.581 [1.966]	5.294 [4.201]	6.539 [3.501]			
Mother entered as adult × cohabited at birth	-3.819 [3.070]		-6.99 [3.215]*		-5.46 [4.449]	-5.757 [4.305]	-1.336 [5.175]		-2.03 [4.656]
Mother entered as minor × cohabited at birth	4.408 [4.263]		3.739 [3.905]	-13.554 [4.950]**	-14.386 [4.335]**				
Mother entered as adult × single at birth	-3.916 [3.536]		-6.459 [3.872]		-4.384 [4.236]	-6.418 [3.975]	1.117 [3.813]		3.72 [3.994]
Mother entered as minor × single at birth	0.345 [3.136]		-0.232 [2.841]		-4.77 [4.533]	-5.279 [4.064]			
Social connectedness (mean of 4 items)		-4.25 [1.273]**				-0.869 [1.304]			-0.186 [1.659]
Live in extended kin arrangement		-0.134 [1.326]				-1.443 [1.692]			0.455 [2.291]
Log of income from all other HH earners		0.071 [0.167]				0.126 [0.191]			0.253 [0.229]
Number of step/half-siblings		-0.103 [1.259]				2.494 [2.090]			4.309 [1.659]**
Attitude about nonmarital stigma (1–4, higher=more stigma)		-1.008 [0.972]				-3.156 [0.971]**			-4.888 [1.293]**
It is not important for a woman to marry (1–4, higher=agreement)		1.416 [0.643]*				-0.85 [0.704]			-0.586 [0.859]
# of family structure transitions		0.804 [0.895]				2.802 [0.771]**			-0.48 [1.603]

	Mother is Mexican-origin			Mother is Puerto Rican-origin			Mother is Dominican		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Mother received HS diploma by wave 1		-0.208 [1.279]				-0.345 [1.263]			1.723 [1.803]
Mother speaks English pretty/very well		0.169 [1.767]				2.602 [1.788]			0.348 [2.520]
Financial strain (t-score)		1.262 [0.732]				3.055 [0.892]**			0.601 [1.126]
Mother is employed		0.165 [0.996]				-2.492 [1.333]			0.811 [1.354]
R resides in Boston (vs. Chicago)		0.645 [7.559]				0.144 [1.489]			
R resides in San Antonio (vs. Chicago)		-0.255 [1.372]				7.404 [4.358]			
R identifies as Black (vs. White/Other)						1.403 [1.512]			0.217 [1.644]
Constant	47.559 [3.480]**	46.235 [3.731]**	43.736 [4.855]**	49.367 [5.247]**	47.115 [5.428]**	54.151 [6.461]**	56.626 [9.441]**	57.094 [9.905]**	68.023 [9.331]**
N	990	990	990	479	479	479	263	260	260
Number of mother/child pairs	373	373	373	178	178	178	96	94	94
Standard errors in brackets									

Chi-square tests assessing equivalence of coefficients associated with cohabitation status at birth for each ethnicity/nativity group in a pooled generalized estimating equation linear regression model predicting children's externalizing behavior problem scores (N=1,717)

Table 4

	Mother is Mexican-origin, US-born	Mother is Mexican, entered US by age 18	Mother is Mexican, entered US after age 18	Mother is mainland-born Puerto Rican	Mother is Puerto Rican, entered mainland by age 18	Mother is Puerto Rican, entered mainland after age 18	Mother is Dominican, entered US by age 18
Mother is Mexican, entered US by age 18	1.77						
Mother is Mexican, entered US after age 18	5.66* (-) ^a	7.26* (-)					
Mother is mainland-born Puerto Rican	1.02	0.49	8.20* (+) ^b				
Mother is Puerto Rican, entered mainland by age 18	4.77* (-)	6.10* (-)	0.01	7.00* (-)			
Mother is Puerto Rican, entered mainland after age 18	0.83	3.23 [†] (-)	1.91	2.54	1		
Mother is Dominican, entered US by age 18	2.79 [†] (-)	5.11* (-)	0.06	4.50* (-)	0.08	1.04	
Mother is Dominican, entered US after age 18	4.82* (-)	7.02* (-)	0.62	6.80* (-)	0.62	2.33	0.19

* p<.05,

[†] p<.10

^a (-) Predicted score in row category is significantly lower than predicted score in column category

^b (+) Predicted score in row category is significantly higher than predicted score in column category