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Unintended Births: Patterns by Race and Ethnicity And Relationship Type

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Abstract

CONTEXT—Childbearing intentions vary by race and ethnicity and by relationship type. However, few studies have examined whether they differ by race and ethnicity within relationship type.

METHODS—Data from the Early Childhood Longitudinal Study were used to examine the childbearing intentions of 9,100 mothers of a cohort of children born in 2001. Multivariate and multinomial regression analyses were conducted to examine whether relationship type (married, cohabiting or neither) helps explain racial and ethnic differences in childbearing intentions and whether associations between race and ethnicity and childbearing intentions vary by relationship type.

RESULTS—Blacks were more likely than whites to have had an unintended birth (odds ratio, 2.5); the relationship held among married (2.6), but not unmarried, mothers. For most relationship types, black mothers had higher relative risks than whites of having had an unwanted birth, rather than an intended or a mistimed one. Asian married mothers were more likely than their white counterparts to have had an unwanted, rather than intended, birth (1.9). The odds of an unintended birth were lower among foreign-born Hispanic cohabiting women than among white cohabiting women (0.6), a finding driven by the lower risk of unwanted than of other births among foreign-born Hispanics (0.3–0.5). Few differences were apparent between native-born Hispanics and white mothers.

CONCLUSIONS—Racial and ethnic differences in childbearing intentions are frequently contingent on relationship context. Differences between whites and blacks are largely attributable to married women. Assessment of childbearing intendedness among Hispanics should take nativity into account.

Rates of unintended childbearing in the United States are high: Close to half of all pregnancies and roughly one-third of births are unintended.[1,2] Research suggests that unintended births, and particularly unwanted births, are negatively associated with the health

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and well-being of women and children, although disagreement exists regarding the causal nature of the relationship.[3–5] Because of these associations, President Obama's administration has prioritized reducing the number of unintended pregnancies and the need for abortion.[6]

Childbearing intentions vary substantially by two important demographic characteristics: race and ethnicity and relationship status. Although 70% of births to white women are identified as intended, only 56% of births to Hispanic women and 49% of those to black women are. Seventy-seven percent of births to married women are intended, compared with 49% of those to cohabiting women and 36% of those to women who are not cohabiting and have never married.[2] Some of the racial and ethnic differences in childbearing intentions are likely due to variation among groups in the distribution of women by relationship status. However, the meaning and role of various relationship types may differ across racial and ethnic groups, reflecting disparities in access to social and economic resources and different cultural and social contexts.[7–9] A woman's identification of a birth as intended within a certain relationship type, therefore, may also vary by race and ethnicity.

Using data from a 2001 birth cohort, we examine whether racial and ethnic differences in childbearing intentions are due, in part, to differences in relationship status at the time of conception, and whether associations between race and ethnicity and childbearing intentions vary by relationship type. Most previous research has focused on childbearing intentions among cohabiting[10] or unmarried[11] women, or has compared married women's childbearing intentions with those of unmarried women. Instead, we examine differences in childbearing intentions at the time of conception among three groups: married women, cohabiting women and those who are neither married nor cohabiting. Additionally, we examine childbearing intentions across a broad range of racial and ethnic groups: whites, blacks, native-born Hispanics, foreign-born Hispanics and Asians. We pay particular attention to nativity status among Hispanic women because of substantial differences between native- and foreign-born women in the prevalence and meaning of marriage and cohabitation; these differences may be obscured when Hispanics are looked at as a whole.[7,9,12,13]

BACKGROUND

Unintended births are those identified as unwanted (i.e., the mother did not want to have any more births at any time in the future) or mistimed (i.e., the birth occurred earlier than the mother desired). Unwanted and mistimed births are often distinguished from one another because they generally occur at different times in a woman's life and because unwanted births tend to be more strongly correlated with negative outcomes than are mistimed births.[14,15] Also, the proportions of unintended births that are unwanted and mistimed vary by race and ethnicity and by relationship status.[2,11,16] For example, unintended births are more likely to be unwanted among black and unmarried women than among white and married women.[16] In this article, we examine unintended births as a whole, but we also separate unwanted from mistimed births.

Relationship status shapes a woman's perception about the acceptability of a birth;[11] historically, social norms have dictated that childbearing should occur within marriage.[17]

However, childbearing has become increasingly separated from marriage, albeit to a greater extent among some subgroups (black and Hispanic women) than others (white and Asian women).[18] In addition, the relationship status of unmarried mothers at the time of birth varies by race and ethnicity; more than 60% of nonmarital births to white and Hispanic women occur in cohabiting unions, while 70% of all births to black women occur outside of coresidential unions.[19] Mirroring these demographic variations, a growing body of work suggests that the acceptability of childbearing within a specific relationship status varies across racial and ethnic groups.[7,8,10,11]

In contrast to white women, who tend to view cohabitation as a stepping-stone to marriage, Hispanic and black women may view it as an alternative to marriage or as an appropriate setting for family formation and child-rearing.[9,13] One likely reason is the socioeconomic disadvantage that black and Hispanic women experience; low-income couples often cite economic and social barriers to marriage and choose to remain in cohabiting or visiting relationships.[20,21] Among Hispanics, a cultural orientation that is more tolerant of cohabitation may also play a role, particularly for the foreign-born;[13] consensual unions have a long and well-established history in Latin America, and they tend to operate similarly to marriages, sharing, to some extent, the same social recognition, economic responsibilities and family formation behaviors.[22] Cohabiting Hispanic women are more likely than cohabiting white women both to have an intended pregnancy and to give birth.[10,11] Additionally, Hispanic[10] and black[23] women are more likely than white women to continue cohabiting following a pregnancy. Interestingly, the instability of cohabiting unions with children, relative to marital unions with children, is substantially greater for white parents than for black and Mexican-American parents (who compose the bulk of the Hispanic population in the United States).[7] In fact, among foreign-born Mexican-American parents, cohabiting relationships are as stable as marriages.[7] For these reasons, to the extent that black and Hispanic women are more likely than women of other racial and ethnic groups to view cohabiting unions as an acceptable domain for childbearing, we expect black and Hispanic women to be more likely than white women to have intended births in cohabiting unions. In addition, we expect intendedness within cohabiting unions to be higher for foreign-born than native-born Hispanics.

Racial and ethnic differences in social norms may also be important. Engaging in nonnormative behavior is often stigmatized.[24] However, because the proportion of births that occur outside of coresidential unions is substantially higher among black women (70% in 2001) than among Hispanics (30%) or whites (15%),[19] the stigma of such births may be much less pronounced for blacks than for other groups. Qualitative research suggests that black women (poor ones, in particular) attribute great social and emotional value to childbearing, despite the high levels of uncertainty surrounding their romantic relationships.[25] Similarly, although Hispanic women (particularly the foreign-born) have lower levels of noncoresidential fertility than blacks, they are often characterized as especially family- and child-oriented.[8,13] Women who have children outside of coresidential unions often rely on others, such as parents and siblings, for financial and social support, and the amount and type of support they receive may vary across racial and ethnic groups.[13,26] If black and Hispanic women outside of coresidential unions experience less stigma than other women when bearing children or receive higher levels of childrearing support, then they may be

more likely than their counterparts from other racial and ethnic groups to have an intended birth. We have no a priori expectations, however, regarding the relative proportions of unwanted and mistimed noncoresidential births.

Lastly, we expect racial and ethnic variation in child-bearing intentions within marriage. Not only do black women have higher levels of socioeconomic disadvantage than most other women, but their experience of marriage differs from whites' in ways that make the union fundamentally less stable and more stressful. First, black women experience higher levels of marital dissolution than do white and Hispanic women[27] and, correspondingly, are more likely to think that marriages will break up.[28] Second, compared with other racial and ethnic groups, blacks report higher levels of distrust and strain between the sexes (including within married couples); they also report greater ambiguity surrounding family roles.[25,28] Third, black men and women have the highest levels of multiple-partner fertility,[29] which is associated with reduced levels of social support and elevated levels of union dissolution.[30] As a result of these factors, births to married black women may be more likely than those to married women of other races and ethnicities to be identified as unwanted or mistimed.

Hispanic women may also differ from white and other women. They, too, have high levels of socioeconomic disadvantage; moreover, as mentioned previously, Hispanic women tend to be very pro-family and pro-child. To the extent that this is true, we expect levels of unintended births to be lower for married Hispanic women than for married white women, net of other factors. However, it is also possible that the risk of unintended births is elevated among Hispanic women, including those who are married, because of limited access to birth control or cultural barriers to birth control use.[31]

Asian-Americans are conspicuously absent from the discussion above. Few studies have examined patterns of family formation among Asian-Americans,[32,33] and none have looked at childbearing intentions. In general, Asian immigrants are characterized as placing a high value on marriage and family.[8,34] While this depiction masks much diversity among the more than 20 Asian immigrant populations in the United States, as well as across generations within specific ethnic groups,[34] as a whole Asian-Americans exhibit fairly traditional family patterns. They have high rates of marriage, tend to marry at an older age than do members of other groups and have the lowest levels of marital disruption (divorce or separation).[27] Additionally, they have the lowest levels of teenage and nonmarital childbearing and the oldest age at first birth.[33,35] First-generation Asian-Americans, who make up the bulk of the Asian-American population, have the lowest levels of cohabitation in the United States, although rates increase fairly quickly across generations.[32] We expect unintended childbearing to be lower than average among married Asian women and higher than average among Asian women outside of marital unions. We have no a priori expectation regarding the distribution of unwanted and mistimed births.

METHODS

Data and Sample

Analyses were conducted using data from the first wave of the Early Childhood Longitudinal Study–Birth Cohort (ECLS-B), a nationally representative study of 10,700*

children (referred to hereafter as focal children) born in 2001.[36] The ECLS-B offers several advantages for the study of associations among relationship type, race and ethnicity, and childbearing intentions: It has data on the childbearing intentions of mothers of a recent cohort of children, a sample size sufficient for studying variations in childbearing intentions among several racial and ethnic groups and relationship types, and detailed information on women's relationship histories. Data were obtained from birth certificates and from interviews and self-administered questionnaires completed by mothers when their focal child was approximately nine months old.

Our study sample comprised 10,000 biological mothers[†] who resided with their focal child and participated in the interview, and for whom valid sample weights were available. We excluded 900 women because we could not determine their relationship type at conception or because data on their childbearing intentions were unavailable. Our final analytic sample consisted of 9,100 biological mothers, of whom 48% were white, 17% Hispanic, 16% black, 11% Asian and 7% of other racial and ethnic backgrounds.[‡]

Measures

Mothers' reports of childbearing intentions were drawn from a series of items asked in reference to the focal child. Respondents were first asked, "Before you became pregnant with your baby, had you or your baby's father stopped using all methods of birth control?" Women who were not using contraceptives were asked why; "wanted to get pregnant" was one of the listed response options. Those who had been using contraceptives were asked, "At the time you became pregnant with your baby, did you yourself actually want to have a baby at some time?" Response options were "yes," "no" and "not sure." Women who said they were not sure were asked, "It is sometimes difficult to recall these things but, just before that pregnancy began, would you say you probably wanted a(nother) baby at some time or probably not?" Possible responses were "probably yes," "probably no" and "didn't care." Women who responded "probably yes" were then asked, "Did you become pregnant sooner than you wanted, later than you wanted, or at about the right time?"

We classified a pregnancy as intended if it was identified as wanted and had occurred on time or later, or if it had occurred after the mother had stopped using contraceptives in the hope of becoming pregnant. A pregnancy that had occurred sooner than desired was coded as mistimed. If a respondent reported that she had not wanted to have a baby when she

[*]Because of National Center for Education Statistics regulations concerning the ECLS-B data, all N values have been rounded to the nearest 50. In 7% of cases, the birth certificate data indicated that the gestational age was less than 28 weeks or greater than 42 weeks. We assumed these estimates were erroneous, because few fetuses are viable before 28 weeks and few pregnancies are allowed to proceed past 42 weeks (source: Moore K and Persaud T, *The Developing Human: Clinically Oriented Embryology*, sixth ed., Philadelphia: W.B. Saunders, 1998). The proportion of cases with improbable gestational ages is consistent with findings from research on the quality of birth certificate data (source: Remy L and Olivia G, *Impact of Data Quality on Birth Related Health Indicators*, San Francisco: Family Health Outcomes Project, University of California, 2006). In these instances, we substituted nine months for the gestational age reported in the birth certificate. In our multivariate analyses, we included a flag variable for these cases; this flag was associated with increased odds of an unintended birth in some models of childbearing intentions.

[†]The number of biological mothers in the ECLS-B is lower than the number of children because of adoptions and multiple births. Our sample excluded adoptive mothers, but included women with multiple births. From 2004 census data, we estimate that 90% of Asian women of child-bearing age (15–44) are foreign-born; overall, two-thirds (67%) of Asians in the United States are foreign-born.

[‡]Percentages do not total 100% because of rounding. We felt this was an appropriate substitution because in 91% of cases for which data were available, the father's race and ethnicity matched the child's. In multivariate analyses, we included a flag variable for cases in which we used this proxy; this flag was associated with increased odds of an unintended birth in models of childbearing intentions.

became pregnant with the focal child, the pregnancy was coded as unwanted, as were pregnancies among mothers who were unsure if they had wanted the pregnancy and reported in follow-up questions that they probably had not wanted the pregnancy or had not cared. These measures closely match those used in other studies.[17,18,24]

In our first set of analyses, we used a dichotomous measure to indicate whether the birth resulted from an unintended or an intended pregnancy. In the second set, we used a categorical variable that distinguished among births resulting from intended, mistimed and unwanted pregnancies. For clarity, we refer to childbearing intentions in reference to births rather than to pregnancies, because the ECLS-B collects data on childbearing intentions for a birth cohort.

A mother's relationship status at conception was defined in relation to the child's biological father; mothers were categorized as married, cohabiting or neither married nor cohabiting. We constructed this measure by comparing mothers' marital and cohabitation histories (including dates of union formation) with birth certificate information regarding delivery date and gestation.*

Our analyses also included a measure of the mother's race and ethnicity. Because of sample size constraints, we were able to conduct separate analyses for foreign-born and native-born women only among Hispanics. Consistent with 2004 census data,[†37] the vast majority of Asian mothers in our sample (89%) were foreign-born, but only small proportions of black (9%) and white (4%) mothers were. Sample limitations also precluded our looking at Hispanics by country of origin.

The analyses controlled for several maternal characteristics: education (categorized as either a high school degree or less vs. at least some college education); employment status in the year before the focal child's birth (worked at all versus did not); age at the child's birth; and, as a proxy for cultural values, frequency of religious service attendance (never, once or twice a year, several times a year, once or twice a month, or weekly or more). We controlled for parity using a dichotomous variable indicating whether the focal child was the mother's first. Our marital history measure indicated whether the mother had previously been married to a man other than the child's biological father. We included three controls for the mother's family background: childhood family structure (whether the mother had resided with both biological parents until age 16), parental education (whether at least one of her parents had more than a high school diploma or the equivalent) and childhood welfare receipt (whether her family had ever received welfare before she was 16).[16]

Finally, we included three measures of father's characteristics, drawn from the birth certificate or the mother's survey: age at the child's birth, education (categorized as per the mother's) and whether the father's race and ethnicity differed from the mother's. In 950 cases, the biological father's race and ethnicity were not reported; we used the focal child's race and ethnicity as a proxy for father's.[‡]

Analysis

In the first step of our analysis, we used t tests to examine bivariate associations between mothers' childbearing intentions and their relationship type, their race and ethnicity, and their race and ethnicity within relationship types.

Next, we used multivariate models to determine whether any racial and ethnic differences in childbearing intentions were due to racial and ethnic differences in relationship status at the focal child's birth. The first model examined the relationship between unintended births and race and ethnicity; the next two models added mothers' and fathers' background characteristics and their relationship type. The fourth and final model added a series of interaction terms to test whether associations between race and ethnicity and childbearing intentions vary by relationship type.

Because the fourth model identified several interactions, we next used logistic and multinomial logistic regression to compare associations between childbearing intentions and race and ethnicity within each relationship type.

We weighted and adjusted all analyses for the data's clustered sampling design by using survey estimation procedures in Stata 9.[38]

RESULTS

Sample Characteristics

More than one-half (59%) of births were to mothers who had been married at the time of conception (Table 1); the remainder were almost equally divided between mothers who had been cohabiting (21%) and those outside of a coresidential union (20%). Among racial and ethnic groups, relationship status at the time of conception differed markedly; 71% of white and 83% of Asian mothers were married at the time of conception, compared with only 24% of blacks and 44–49% of members of other groups. Nonetheless, the vast majority (72–80%) of native-born Hispanics, foreign-born Hispanics and women of "other" races conceived within a marital or cohabiting union. In contrast, just 52% of black mothers conceived within such unions.

Bivariate Results

In the full sample, 43% of births were reported as unintended, including 30% that were mistimed and 13% that were unwanted (Table 2). As we had expected, the proportion of births that were unintended was higher among mothers who had been cohabiting (58%) or outside of a coresidential union (72%) at the time of conception than among mothers who had been married (28%), and women who had been outside of a coresidential union were more likely than women in the other two groups to report a birth as unwanted (30% vs. 7–16%). The majority (66%) of births to black mothers were characterized as unintended, compared with roughly one-third of births to whites (36%) and Asians (33%), and about one-half of those to Hispanics (46%) and women of other races and ethnicities (53%). Additionally, blacks reported that a higher proportion of births were unwanted than did mothers of all other races and ethnicities (33% vs. 9–18%).

Racial and ethnic patterns in childbearing intentions varied by relationship type. The proportion of births that were unintended was higher among married blacks (48%) than among married whites (24%) or Asians (26%). Among cohabiting mothers, Hispanics were less likely to report an unintended birth (49%) than were whites (60%), Asians (62%) and blacks (66%). Racial and ethnic differences among women who had not been married or cohabiting at the time of conception were similar to those among cohabiting women, although they were less pronounced and in many cases did not reach statistical significance. Contrary to expectations, black women outside of coresidential unions were no more likely than whites or Hispanics in such relationships to have intended births; in fact, they had the highest level of unwanted births.

We also found several key differences in childbearing intentions between foreign- and native-born Hispanics. Overall, the proportion of births that were intended was greater among foreign-born Hispanic women (59%) than among native-born ones (48%). No nativity differences were evident among married Hispanic mothers. However, among cohabiting mothers, the proportion of intended births was higher among foreign-born than native-born Hispanics, while among those outside of a union, the proportion of unwanted births was lower among foreign-born than native-born Hispanics.

Multivariate Results

•***Overall.—***Model 1 (Table 3) indicates that the odds of reporting an unintended birth were higher among black women, Hispanic women and those in the “other” group than among whites (odds ratios, 1.2–2.5). However, after we controlled for background characteristics in model 2, associations remained only for blacks (2.0) and native-born Hispanics (1.3). The relationships between background characteristics and childbearing intentions were generally in the expected directions: Maternal characteristics associated with elevated odds of an unintended birth were having worked in the year prior to birth (1.2), having been 29 or younger at the child’s birth (1.5–2.6) and having had a prior birth (1.5); paternal characteristics associated with elevated odds of an unintended birth were having been younger than 25 at the child’s birth (1.7) and being of a different race and ethnicity from the mother (1.4). The odds of an unintended birth were reduced if the mother was 35 or older at delivery (0.8) or if the father had more than a high school education (0.7).

In model 3, the odds of reporting an unintended birth were higher among mothers who had been cohabiting (odds ratio, 2.3) or outside of a coresidential union (3.5) at the time of conception than among married mothers. After adjustment for relationship type, black mothers were the only group whose odds of having had an unintended birth remained higher than those of whites (1.5).

We found interactions between relationship type and race and ethnicity for blacks and foreign-born Hispanics, suggesting that the association between race and ethnicity and childbearing intentions varies by relationship type. These results indicate that conducting analyses separately by relationship status for different subgroups could aid in understanding the association between childbearing intentions and race and ethnicity.

•***Unintended births by relationship type.***—Among mothers who had been married at the time of conception, the odds of having had an unintended birth were higher among blacks (odds ratio, 2.6), Asians (1.4) and both native- and foreign-born Hispanics (1.3 for each) than among whites, after adjustment for background characteristics (Table 4, page 182). Among cohabiting mothers, the only racial and ethnic group whose odds of reporting an unintended birth differed from those of their white counterparts was foreign-born Hispanics (0.6). Race and ethnicity were not associated with unintended births among mothers who were neither married nor cohabiting at the time of conception. Associations between background characteristics and childbearing intentions by relationship type were generally similar to those found in the analysis of the full sample, although some associations were apparent only for certain relationship types.

•***Intendedness.***—In the multinomial analysis, the relative risk of having had an unwanted birth rather than an intended one was higher among blacks (relative risk ratio, 2.4), Asians (1.6) and native-born Hispanics (1.4) than among whites (Table 5, page 183). Blacks and Asians also had an elevated relative risk of having had an unwanted birth rather than a mistimed one (2.1 and 1.5, respectively). No other associations between race and ethnicity and fertility intentions emerged for the full sample.

Black married mothers had a higher relative risk than white married mothers of reporting an unwanted or mistimed birth rather than an intended birth (relative risk ratios, 3.7 and 2.2, respectively), and a greater relative risk of reporting an unwanted, rather than mistimed, birth (1.7). Asian married mothers had a greater relative risk than their white counterparts of having had an unwanted, as opposed to intended, birth (1.9), while foreign-born Hispanics were more likely than whites to report a mis-timed birth rather than an intended one (1.4).

Among cohabiting mothers, blacks had twice the relative risk of whites of having had an unwanted, versus mistimed, birth (relative risk ratio, 2.1). In contrast, foreign-born Hispanics had a lower relative risk than whites of reporting an unwanted birth rather than an intended (0.3) or a mistimed one (0.5).

Finally, among mothers who had not been married or cohabiting at conception, blacks had a higher relative risk than whites of having had an unwanted birth rather than an intended (1.7) or a mistimed one (2.6), but a lower relative risk of having had a mistimed birth rather than an intended one (0.7). Among native-born Hispanic mothers, the relative risk of reporting an unwanted, rather than mistimed, birth was more than twice that of white mothers (2.2).

DISCUSSION

Our results highlight the importance of examining the associations of both race and ethnicity and relationship type with childbearing intentions. In many cases, racial and ethnic differences in childbearing intentions are contingent on the relationship context. Not considering relationship type may mask differences among racial and ethnic groups. Our study also provides further evidence of the importance of examining mistimed and unwanted births separately, rather than simply grouping them as unintended births.[11]

Black-White Differences in Intendedness

Our analyses indicate that overall, the odds of an unintended birth among black mothers are almost 1.5 times those of white mothers, even after adjustment for other variables. The association is similar among married women, but not among mothers in other relationship types. Therefore, the difference between black and white women at the population level appears to be driven in part by differences in childbearing intentions among married women. Given that a smaller proportion of black women than of white women marry, the effects of the differences in unintendedness between them must be fairly large.

However, analyses of the individual components of childbearing intentions reveal more complex differences between black and white mothers. Our multinomial models suggest that blacks in both married and nonco-residential unions are more likely than whites to have an unwanted versus an intended birth. These findings are consistent with those of previous research indicating that in general, blacks are more likely than whites to have unwanted births and whites are more likely than blacks to have mistimed births.[2] Our research further suggests, however, that among married women, blacks have higher levels than whites not only of unwanted births, but also of mistimed births.

The elevated odds of unwanted births among married and noncoresidential black mothers may be due in part to economic or relationship stresses that were not directly measured in this study, or to the more limited marriage opportunities among blacks.[11,25,28] The findings may also reflect the greater uncertainty or instability of relationships among blacks.[25] Likewise, higher levels of unwantedness among blacks may be due to ambivalence about child-bearing and to lack of contraceptive use among unmarried and cohabiting couples, whose pregnancies are frequently neither planned nor actively prevented.[39] In addition, the elevated odds of unwanted childbearing among black women may reflect, in part, racial differences in women’s willingness to terminate unwanted pregnancies.[40]

Hispanic-White Differences in Intendedness

A comparison of childbearing intentions between white and Hispanic women yields a somewhat different pattern. Overall, the odds of having had an unintended birth did not differ between foreign- or native-born Hispanics and whites, net of controls. However, both native- and foreign-born Hispanic mothers who were married at the time of conception had higher odds of an unintended birth than did white married mothers. The results of the multinomial regression analysis suggest that these differences are likely driven by mistimed births and may be limited to foreign-born Hispanics.

Among cohabiting women and those outside of a coresidential union at the time of conception, native-born Hispanics and whites had similar odds of reporting an unintended birth. On the other hand, foreign-born Hispanics who were cohabiting at the time of conception had lower odds than white cohabiting women of reporting an unintended birth. Foreign-born Hispanic cohabiting mothers had a lower relative risk of an unwanted birth (versus an intended or mistimed birth) than white cohabiting mothers, but were no more likely than whites to have a mistimed birth rather than an intended one.

Our results confirm prior findings that Hispanic cohabiting women are more likely than white cohabiting women to have intended pregnancies, and provide further evidence that Hispanics may be more likely than other racial and ethnic groups to view cohabitation as an appropriate setting for family formation.[10,11,41] Our study expands upon past work by suggesting that the racial and ethnic differences in childbearing intentions among cohabiting women are largely driven by the childbearing intentions of foreign-born Hispanics. Several factors may explain this finding. First, common-law marriages are an established tradition and are very prevalent in Latin American countries, where women's reproductive behavior is similar in formal unions and informal unions.[22,41] Moreover, the characteristics of cohabiting unions among foreign-born Hispanics may differ from those among their native-born counterparts and among whites. Another possibility is that the relationship quality of foreign-born Hispanics differs from that of others or that the experience of having migrated to the United States helps couples who are not legally wed to bond in ways that facilitate family formation. Unfortunately, data on relationship and socioeconomic characteristics at the time of conception are not available in the ECLS-B, so we could not explore these issues.

The differences between foreign-born and native-born Hispanic cohabiting mothers suggest that as Hispanics become acculturated, the meanings they ascribe to cohabitation may come to resemble those among whites and blacks.[13] In addition, reports of childbearing intentions may be more subject to social desirability bias among foreign-born Hispanics—most of whom have emigrated from countries whose culture and religion venerate motherhood—than among native-born Hispanics.[13] Indeed, motherhood and children are highly valued in Catholicism, which plays a prominent role in Latin American countries. As a result, foreign-born Hispanics may be more inclined than their native-born counterparts to report an unintended birth as having been mistimed rather than unwanted. However, religious attendance (the only variable in the data set related to cultural and religious values) did not attenuate the relationship between nativity and childbearing intentions. Our findings also underscore the importance of recognizing the diversity of the Hispanic population within the United States.

Asian-White Differences in Intendedness

While the odds of reporting an unintended birth did not differ significantly between Asians and whites for the sample as a whole or among women who had been cohabiting or outside of a coresidential union, Asian married women were more likely than white married women to report an unintended birth. The decomposition of childbearing intentions suggests that the difference in childbearing intentions between married Asian and white women was driven by Asian women's higher relative risk of having had an unwanted versus intended birth. This is surprising, given that Asians appear to adhere to a traditional conservative culture. Perhaps the unmarried Asians in our sample were more likely than their married counterparts to be third- or later-generation immigrants and have adopted mainstream views on cohabitation and non-marital childbearing. Because Chinese make up one of the largest groups of Asian-Americans in the United States,[37] and because the large majority of Asians in our sample were foreign-born, the elevated likelihood of reporting unwanted births may reflect a strong preference for male children[42] or a carryover of China's one-child policy. Finally, our

findings point to the need for additional research on Asians' fertility, contraceptive use patterns and childbearing intentions, and for data that will allow examination of heterogeneity in their nativity status and country of origin.

Limitations

Our study has several limitations. First, our sample included only pregnancies that resulted in live births. Additionally, our measure of childbearing intentions may have been subject to the bias inherent in retrospective reports of childbearing intentions.[42] Such bias may have been exacerbated by our use of a cohort of live births and of intentions data collected relatively soon after the child's birth, when women have a reduced likelihood of labeling a birth unintended. However, the overall findings are consistent with those of other studies and are contrary to what we would expect if respondents were providing socially desirable responses. Another limitation is that childbearing intentions may be more nuanced than our discrete categories allowed;[43] such intentions may be better measured on a continuum that reflects the ambivalence that many couples voice.[21] Moreover, differences in the interpretation and applicability of current questions used to measure childbearing intentions may vary by race and ethnicity.[14]

Implications

Our findings have several policy implications. Because unintended births, particularly those that are unwanted, are associated with poor outcomes for couples and children,[4,5] our findings underscore the need to improve access to family planning to help prevent unwanted and mistimed births among couples of all racial and ethnic groups and relationship types. Applicable programs should be tailored to a woman's relationship type and should recognize the extent to which her relationship status may shape the meaning and implications of childbearing. That differences in unintended births between Asians and whites and between blacks and whites were limited to married women speaks to the need for programs and services that broaden their focus beyond unmarried women and other groups traditionally considered at high risk for unintended childbearing. The especially high rates of unwanted births among blacks in all relationship categories indicate the need to address the unique cultural and economic issues of this population. More generally, our findings suggest that each relationship type may warrant unique program and clinic approaches to help reduce unintended pregnancy.

The results of this study point to several avenues for future research. First, our findings, coupled with those of others, suggest a need to better understand the meanings associated with childbearing intentions of whites, blacks, Hispanics, Asians and others, and how these meanings may vary among relationship types. This is particularly important given the especially high rates of unwanted and nonmarital fertility among blacks, the current immigration patterns among both Hispanics and Asians, and the high rates of fertility among Hispanics.[13] Additional research is also needed to identify factors that help explain why rates of unwanted births are higher among blacks than whites, particularly among married women. In addition, research should examine the differences in the meaning of cohabitation across racial and ethnic groups and by nativity status. Indeed, our findings suggest the potential value of examining whether actively planned pregnancies within cohabiting

relationships are more likely to occur among foreign-born Hispanic women than among native-born Hispanics and women of other racial and ethnic groups; such research would provide insights into the meaning of cohabitation and childbearing across these groups. Further work is needed on the fertility and childbearing patterns of Asians, about which little is known. Lastly, it is important to remember that the meanings of marriage and cohabitation have changed dramatically during the past two to three decades, and are still changing. Thus, the associations between relationship status and birth intentions will likely continue to change, albeit at a different pace for different groups of women.

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TABLE 1.

Percentage distribution of women with a birth in 2001, by relationship type at time of conception, according to race and ethnicity, Early Childhood Longitudinal Study

Race/ethnicity	N	%			
		Married	Cohabiting	Neither	Total
All	**9,100**	**58.8**	**21.2**	**20.1**	**100.0**
White	4,350	70.5	16.6	12.9	100.0
Black	1,500	24.4	27.8	47.7	100.0
Hispanic	1,550	47.3	29.5	23.3	100.0
Native-born	700	44.3	27.3	28.4	100.0
Foreign-born	900	49.1	30.9	20.0	100.0
Asian	1,050	83.2	7.5	9.3	100.0
Other	650	44.9	34.6	20.6	100.0

Notes: Distributions of women by relationship type differ by race and ethnicity at p<.001 and by nativity status for Hispanics at p<.01. All N values are rounded to the nearest 50. Percentages may not total 100.0 because of rounding.

TABLE 2.

Percentage distribution of mothers, by intendedness of birth, according to women's relationship type at conception, race and ethnicity, and race and ethnicity within relationship type

Relationship type and race/ethnicity	N	Unintended			Intended
		Any	Mistimed	Unwanted	
All	**9,100**	**42.8**	**29.5**	**13.2**	**57.3**
Relationship type					
Married	5,250	27.6	21.0	6.6	72.4
Cohabiting	1,900	57.7*	41.6*	16.1*	42.3*
Neither	1,950	71.5*,†	41.8*	29.6*,†	28.5*,†
Race and ethnicity					
White	4,350	36.3	27.3	8.9	63.7
Black	1,500	65.8‡	33.0‡	32.8‡	34.2‡
Hispanic	1,550	45.7‡,§	33.3‡,††	12.4‡,§	54.3‡,§
Native-born	700	52.5	35.0	17.5	47.5
Foreign-born	900	41.4‡‡	32.3	9.1‡‡	58.6‡‡
Asian	1,050	32.7‡,§,**	23.2‡,§,**	9.5§	67.3‡,§,**
Other	650	53.4‡,§,**,††	35.3‡	18.1‡,§,**,††	46.6‡,§,**,††
Married					
White	3,050	24.0	18.8	5.2	76.0
Black	350	47.8‡	29.2‡	18.6‡	52.2‡
Hispanic	750	34.7‡,§	27.1‡	7.6‡,§	65.3‡,§
Native-born	300	36.7	27.8	8.9	63.3
Foreign-born	450	33.6	26.8	6.8	64.4
Asian	900	25.9§,**	18.9§,**	7.0§	74.1§,**
Other	250	37.4‡,††	25.8	11.6‡	62.6‡,††
Cohabiting					
White	750	60.1	45.4	14.7	39.9
Black	400	65.9	36.7‡	29.2‡	34.1
Hispanic	450	48.7‡,§	38.8	9.9§	51.3‡,§
Native-born	200	60.2	45.5	14.5	39.8
Foreign-born	250	42.3‡‡	35.0	7.3	57.7‡‡
Asian	100	62.2**	39.9	22.3**	37.8**
Other	250	60.1	41.8	18.3§	39.9
Neither					
White	600	72.9	51.0	21.9	27.1
Black	750	74.9	32.8‡	42.0‡	25.1
Hispanic	400	64.3§	39.0‡	25.4§	35.7§
Native-born	200	70.1	35.8	34.5	29.8

Relationship type and race/ethnicity	N	Unintended			Intended
		Any	Mistimed	Unwanted	
Foreign-born	200	59.1	41.5	17.6‡‡	40.9
Asian	50	69.2	48.0	21.2§	30.8
Other	150	77.1	45.3	31.8	22.9

*Different from percentage for married mothers at p<.05.

†Different from percentage for cohabiting mothers at p<.05.

‡Different from percentage for white mothers at p<.05.

§Different from percentage for black mothers at p<.05.

**Different from percentage for Hispanic mothers at p<.05.

††Different from percentage for Asian mothers at p<.05.

‡‡Different from percentage for native-born Hispanic mothers at p<.05.

Notes: All N values are rounded to the nearest 50. Sum of percentages mistimed and unwanted may not total percentage unintended because of rounding. Sum of percentages unintended and intended may not total 100.0 because of rounding.

TABLE 3.

Odds ratios from logistic regression analyses examining association between unintended childbearing and parents' characteristics

Characteristic	Model 1	Model 2	Model 3	Model 4
MOTHER				
Race and ethnicity				
White (ref)	1.00	1.00	1.00	1.00
Black	2.47***	1.99***	1.48***	2.60***
Hispanic, native-born	1.88***	1.27*	1.13	1.35*
Hispanic, foreign-born	1.23*	1.07	0.93	1.32
Asian	0.90	1.17	1.18	1.35*
Other	1.76***	1.16	1.11	1.29
Education				
<high school (ref)	na	1.00	1.00	1.00
>high school	na	0.89	196	0.97
Worked in 12 months before birth				
Yes	na	1.21*	1.17*	1.18*
No (ref)	na	1.00	1.00	1.00
Religious service attendance	na	0.97	1.01	1.05
Age†				
<25	na	2.63***	2.17***	2.09***
25–29	na	1.47***	1.47***	1.47***
30–34 (ref)	na	1.00	1.00	1.00
>34	na	0.78*	0.80	0.78*
Parental education				
≤high school (ref)	na	1.00	1.00	1.00
>high school	na	1.13	1.14	1.10
Lived with both parents				
Yes	na	0.95	1.00	1.03
No (ref)	na	1.00	1.00	1.00

Characteristic	Model 1	Model 2	Model 3	Model 4
Received welfare during childhood				
Yes	na	1.16	1.12	1.12
No (ref)	na	1.00	1.00	1.00
Prior birth				
Yes	na	1.50***	1.79***	2.41***
No (ref)	na	1.00	1.00	1.00
Previously married‡				
Yes	na	0.97	0.78*	0.76**
No	na	1.00	1.00	1.00
FATHER				
Education				
≤high school (ref)	na	1.00	1.00	1.00
>high school	na	0.74**	0.82*	0.72**
Age†				
<25	na	1.70***	1.41**	1.41**
25–29	na	0.95	0.90	0.91
30–34 (ref)	na	1.00	1.00	1.00
>34	na	1.06	1.03	1.03
Race/ethnicity differs from mother's				
Yes	na	1.37**	1.31*	1.23
No (ref)	na	1.00	1.00	1.00
MOTHER AND FATHER				
Relationship type§				
Married (ref)	na	na	1.00	1.00
Cohabiting	na	na	2.34***	4.23***
Neither	na	na	3.51***	7.24***
INTERACTION TERMS				
Relationship type × race and ethnicity				
Cohabiting × black	na	na	na	0.42**

Characteristic	Model 1	Model 2	Model 3	Model 4
Cohabiting × Hispanic, native-born	na	na	na	0.71
Cohabiting × Hispanic, foreign-born	na	na	na	0.45**
Cohabiting × Asian	na	na	na	0.75
Cohabiting × other	na	na	na	0.65
Neither × black	na	na	na	0.37***
Neither × Hispanic, native-born	na	na	na	0.63
Neither × Hispanic, foreign-born	na	na	na	0.52*
Neither × Asian	na	na	na	0.78
Neither × other	na	na	na	0.86

*p<.05.

**p<.01.

***p<.001.

†At time of child's birth.

‡Refers to marriage to someone other than child's biological father.

§At time of child's conception.

Notes: Religious service attendance is a continuous variable; all other variables are dichotomous or categorical. Father's characteristics were obtained from mother's reports. na=not applicable. ref= reference category.

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TABLE 4.

Odds ratios from logistic regression analyses examining association between unintended childbearing and parents' characteristics, by relationship type at conception

Characteristic	Married	Cohabiting	Neither
MOTHER			
Race and ethnicity			
White (ref)	1.00	1.00	1.00
Black	2.61***	0.98	0.97
Hispanic, native-born	1.34*	0.94	0.86
Hispanic, foreign-born	1.33*	0.60*	0.66
Asian	1.37*	0.92	1.23
Other	1.29	0.71	1.37
Education			
≤high school (ref)	1.00	1.00	1.00
>high school	0.99	0.97	0.91
Worked in 12 months before birth			
Yes	1.10	1.30	1.29
No (ref)	1.00	1.00	1.00
Religious service attendance	1.05	0.97	0.93
Age†			
<25	1.80**	2.16**	2.18*
25–29	1.45**	1.68*	1.19
30–34 (ref)	1.00	1.00	1.00
>34	0.85	0.74	0.61
Parental education			
≤high school (ref)	1.00	1.00	1.00
>high school	1.10	1.09	1.45*
Lived with both parents			
Yes	1.05	1.05	0.97
No (ref)	1.00	1.00	1.00
Received welfare during childhood			
Yes	1.27	1.12	0.96
No (ref)	1.00	1.00	1.00
Prior birth			
Yes	2.39***	1.42*	1.29
No (ref)	1.00	1.00	1.00
Previously married‡			
Yes	0.84	0.58**	0.82
No (ref)	1.00	1.00	1.00
FATHER			

Characteristic	Married	Cohabiting	Neither
Education			
≤high school (ref)	1.00	1.00	1.00
>high school	0.73 *	1.28	0.80
Age †			
<25	1.78 **	1.05	1.72 *
25–29	0.94	0.87	1.01
30–34 (ref)	1.00	1.00	1.00
>34	0.93	1.10	1.54
Race differs from mother's			
Yes	1.21	1.54 *	0.90
No (ref)	1.00	1.00	1.00

* p<.05.

** p<.01.

*** p<.001.

† At time of child's birth.

‡ Refers to marriage to someone other than child's biological father.

Notes: Religious service attendance is a continuous variable; all other variables are dichotomous or categorical. Father's characteristics were obtained from mother's reports. ref= reference category.

TABLE 5.

Relative risk ratios from multinomial logistic regression analyses examining associations between mother's childbearing intentions and race and ethnicity, by relationship type at conception

Relationship type and race/ethnicity	Unwanted vs. intended	Mistimed vs. intended	Unwanted vs. mistimed
All			
White (ref)	1.00	1.00	1.00
Black	2.40***	1.12	2.14***
Hispanic, native-born	1.37*	1.05	1.31
Hispanic, foreign-born	0.75	1.01	0.75
Asian	1.58**	1.07	1.48*
Other	1.42	1.01	1.41
Married			
White (ref)	1.00	1.00	1.00
Black	3.73***	2.18***	1.71*
Hispanic, native-born	1.41	1.32	1.07
Hispanic, foreign-born	1.07	1.43*	0.75
Asian	1.88**	1.24	1.51
Other	2.10	1.09	1.92
Cohabiting			
White (ref)	1.00	1.00	1.00
Black	1.59	0.77	2.06**
Hispanic, native-born	0.81	0.99	0.82
Hispanic, foreign-born	0.34**	0.71	0.47*
Asian	1.30	0.80	1.62
Other	0.76	0.70	1.08
Neither			
White (ref)	1.00	1.00	1.00
Black	1.71**	0.67*	2.57***
Hispanic, native-born	1.43	0.64	2.23**
Hispanic, foreign-born	0.70	0.64	1.10
Asian	1.56	1.06	1.47
Other	1.89	1.14	1.65

* p<.05.

** p<.01.

*** p<.001.

Notes: All controls included in Table 4 were also included in these models. ref=reference category.