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Why are so many American children born into poverty? Differences in Hispanic and Black new mothers' sources of disadvantage

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Why are so many American children born into poverty?

Differences in Hispanic and Black new mothers' sources of disadvantage

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Abstract

American children are more likely to be poor at birth than at subsequent childhood ages, and the majority who are poor are either Black or Hispanic. Using data from the 2005-2015 American Community Survey, we investigate the degree to which own education and the resources obtained through a partner and other household members protect against the household poverty of White, Black, and Hispanic women in the year they give birth. Using a combination of cross-tabulation, regression, and regression decomposition, we find that quite different processes generate Black-White and Hispanic-White poverty disparities. As much as 64% of the higher poverty rate of Hispanic new mothers is attributable to their lower education. The higher poverty rate of Black new mothers is attributable approximately equally to their lower education and the greater likelihood that, for given own-education levels, they will be unpartnered, be living as a household head if unpartnered, and have a less-educated partner if partnered. Compared to foreign-born Hispanic new mothers, U.S.-born Hispanic new mothers are both more educated and more able to translate own, partner's, and household co-residents' characteristics into poverty avoidance. Together, these findings point to poverty at birth being more entrenched for Black than Hispanic populations, even while demographic shifts mean that poor Hispanic newborns now outnumber poor Black newborns.

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Introduction

More than a quarter (27.9%) of all women giving birth in 2012 in the United States were officially classified as poor (Monte and Ellis 2014). Being born to a poor mother increases the likelihood that the infant will have low birth weight (Strully, Rehkopf, and Xuan 2010) or be born pre-term (Brumberg and Shah 2015), among other health risks. Early-life poverty damages later life chances (Duncan et al 1998, 2010), and conversely early-life interventions counteracting the harm brought about by poverty are many times more effective than during school years or even at pre-school ages (Heckman 2000). The social, economic, and health costs of U.S. child poverty have been estimated at between \$500 billion and \$1.0 trillion per year (Holzer et al 2008; McLaughlin and Rank 2018). Black and Hispanic children are far more likely than are non-Hispanic White children to be poor. In 2013, they accounted for exactly two thirds (66.7%) of all poor children in the U.S., with Hispanic children 37.3% and Black children 29.4% of all poor children (U.S. Census Bureau 2014, Table B.2).

In the present study, we use the American Community Survey (ACS) to compare the poverty of women who gave birth in the past year, 2005-2015, to the poverty of women of childbearing age who did not give birth in the past year. Our primary question is, what accounts for Black and Hispanic children dominating the ranks of children born into poverty? Following a standard decomposition approach (DasGupta 1978; Van Hook, Brown, and Kwenda 2004), we consider both differences in characteristics of minority versus White new mothers and differences in how these characteristics are transformed into poverty or poverty avoidance (the “coefficient” or “rate” effect). We offer two innovations, however, in how we conduct this analysis. Conceptually, we distinguish between the mother’s own characteristics and the characteristics of those other household adults from whom she is able to obtain resources and

thereby avoid poverty: a partner (spouse or cohabitor); and a primary family (with whom she shares the household in a non-head position). Methodologically, our decomposition allows us to estimate the separate contributions of her own resources from those of her partner or primary family, in addition to the contribution of an overall “coefficient” effect. This breakdown into own versus others’ characteristics turns out to be critical for understanding the sources of difference between the Black-White and the Hispanic-White poverty-rate difference at the time of giving birth. Hispanic new mothers have lower education than either Black or White women, but obtain substantially more resources from partner and primary-family units than do similarly-educated Black women.

Two additional facets of our analysis plan are critical to its success. First, we use a household poverty measure in preference to the official, family poverty measure in order to be more inclusive especially of cohabiting-partner resources. Second, we separate Hispanics into foreign-born and U.S.-born. The latter enables us to take into account the much lower educational attainment of foreign-born Hispanic women, the auspices of their migration to the U.S. frequently to join a husband or partner already in the country (Cerrutti and Massey 2001), and their parents’ typically remaining in the country of origin and consequently not available for household extension in the United States (Van Hook and Glick 2007).

Literature Review: Childhood Poverty in the U.S. and its Race/ethnic Distribution

Remarkably, and uniquely among high-income countries (Smeeding and Torrey 1988, Smeeding 2006), childhood poverty in the United States has proved impervious to overall economic growth over the last several decades (Hoynes, Page, and Stevens 2006). The official child poverty rate reached its historical low of 14.0 percent in 1969. Since then, the child poverty

rate has never fallen below 16.2 percent (U.S. Census Bureau 2005; 2014). In 2013, child poverty stood at 19.5 percent, including 22.2 percent of children under age 6. An occasional series of official poverty rates of newborns is available since 2006 from the American Community Survey (ACS), calculated from the poverty status of women who gave birth in the last 12 months. As many as 27.9% of all newborn children were born to a woman who experienced family poverty in the year up to 2012 (Monte and Ellis 2014), up from 24.8% in 2008 (Dye 2010) and 25.2% in 2005 (Dye 2008). In those same years, the poverty rates for all children under age 18 were respectively 21.8%, 19.0%, and 17.4% (DeNavas-Walt et al 2013, 2009, 2007).

Racial and ethnic disparities in childhood poverty in the United States continue to be disturbingly large. Whereas 10.1 percent of non-Hispanic White children and 9.8 percent of Asian children in 2013 lived in a poor household, the poverty rates for Black and Hispanic children were 38.0 percent and 30.0 percent respectively (U.S. Census Bureau 2014, Table B.2). The Black population has historically been the group that has experienced the deepest and most persistent poverty in the United States. For example, Black children accounted for almost 90 percent of all children in long-term poverty in the 1970s and 1980s (Duncan and Rodgers 1988). As the racial and ethnic composition of the United States population has changed, however, the distribution of child poverty across groups has evolved into a more diverse pattern of predominantly Black, Hispanic, and Hispanic immigrant poverty (Van Hook et al 2004; Lichter, Qian, and Crowley 2005).

Family structure is strongly implicated in child poverty (Cancian and Reed 2001; Martin 2006; Chen and Corak 2008; Western, Bloome, and Percheski 2008). For example, 55.0 percent of children under 6 who were living with a single mother were poor in 2013 (U.S.

Census Bureau 2014, p.14). The U.S. levels of poverty of children, of families with children, and especially of its single-parent families, rank among the worst across high-income countries (Gornick and Meyers 2005). A major reform to anti-poverty programs in the 1990s resulted in an arguably more perilous situation for children (Gilbert 2009; Grieger and Wyse 2013), exacerbated by weaker anti-poverty protections of the post-reform era that combined with a deep economic recession (Eamon and Wu 2013). Studies have come to mixed conclusions about the reforms' effects on single-mother poverty (Lichter and Crowley 2004; Meyer and Sullivan 2008). Deeper poverty appears to have increased (Bennett, Lu and Song 2004; Shaeffer and Edin 2013), with substantial proportions of single-mother families becoming 'disconnected' from both cash transfers and earned income (Scott et al 2004; Blank and Kovak 2009).

Both because of, and independently of, their motherhood status, women are, on average, more likely to be poor than are men (Brady and Kall 2008). Marriage, cohabitation, and living with extended family have been found to bring substantial resources, leading to poverty avoidance compared to single mothers heading a household (Snyder, McLaughlin, and Findeis 2006). Black women's partner prospects have long been substantially worse than otherwise similar White and Hispanic women's (Wilson 1987; Crowder and Tolnay 2000; Landale and Oropesa 2007; Western and Wildeman 2009). Vertically-extended households are a common mechanism for adapting to the economic vulnerability of Black single-mother families (Hofferth 1994; Kamo 2000). Familism among Hispanic immigrants may advantage poverty-exposed new mothers among Hispanic families (Landale and Oropesa 2007). Lack of kin availability in the U.S. reduces possibilities for Hispanic-immigrant poverty avoidance especially by living in vertically-extended households, but this may be offset by horizontal and other

complex family and non-family extension among Hispanics in general (Kamo 2000) and among Hispanic immigrants in particular (Leach 2014).

Data and Methods

We use the American Community Survey (ACS), years 2005-2011 and 2013-2015 (Ruggles et al 2015) to compare non-Hispanic White, Black, and Hispanic new mothers. Being a new mother is established by the question asked of all 15 to 50 year old women in the ACS household as to whether she gave birth in the last 12 months. In 2012, values of the variable for whether a woman gave birth in the last year are suppressed in the ACS public use version for some geographic areas, leading to our omitting this year to maintain national representativeness (see Appendix A). The ACS has very large sample sizes, allowing for assessment of fine-grained analyses of socio-demographic factors associated with poverty in the year of a birth, notably own education by partner's education among new mothers.

The measurement of poverty is a topic of ongoing major debate. Cohabitation is more common among low-income families, and taking into account a cohabitor's presence and income reduces measured poverty of children with a cohabiting parent or parents (Manning and Brown 2006; Snyder et al 2006). The official poverty measure, in contrast, uses a family unit definition that excludes cohabitators (Iceland et al 2001). We follow Snyder et al (2006) and others in using a measure of household poverty that includes all household members in their resource and poverty threshold definitions (see Appendix A for details). An additional problem with the official poverty measure, that non-cash benefits and tax credit income are omitted, is not addressed, however, in the present study. Because these resources are targeted at families with children, they reduce poverty when taken into account (Iceland et al 2001). Finally, neither

the official family poverty measure nor our household poverty measure accounts for poverty depth, which also has important implications for child wellbeing (Dearing, McCartney, and Taylor 2001).

We use household relationship and own and partner's education to model the ratio of women in poverty who gave birth versus those in poverty and *did not* give birth in the immediately previous year. Given the quantitative importance and distinct circumstances and behavior of immigrant Hispanics relative to U.S.-born Hispanics (Landale and Oropesa 2007; Glick 2010), we also conduct separate analyses of Hispanic new mothers by whether they are U.S.-born or foreign-born. We estimate the same binary logistic regression model of poverty status separately for non-Hispanic White, Black, and Hispanic women age 15 to 49, and again separately for foreign-born and U.S.-born Hispanic women age 15 to 49:

$$\Pr\{\text{Poverty}\} = \text{Logit}\{\text{Own Educational Attainment, Household Relationship and Partner's Education, Birth; Birth*Own Education, Birth*Household Relationship, Birth* Partner's Education}\} \quad (1)$$

This model allows us to analyze the difference between Black and Hispanic women's versus non-Hispanic White women's poverty risk at the time of giving birth, as being determined (1) by own resources, specifically the human capital represented by own educational attainment, and (2) by the resources the woman draws on through a partner's human capital or, in the case she is not married or cohabiting, of others in the household in which she is a member. As we discuss in the Results section below, in analyses that included also age and year, the main results did not change. Decompositions and interpretation of the main research questions, however, are made more complicated by the addition of jointly determined predictor variables, including due to the expected endogeneity of age at motherhood with potential

resource availability from a partner versus extended-family members (Burton 1990; Rosenzweig 1999).

To answer quantitatively the question of why Black and Hispanic children are disproportionately those born into poverty in the U.S., we conduct counterfactual simulations, following the methods of regression-decomposition analysis. These analyses successively substitute White for minority (Black or Hispanic) newborn mothers' *characteristics* and White for minority (Black or Hispanic) new mothers' *coefficients*, where these coefficients transform characteristics into poverty risk differentially for White, Black, and Hispanic women. We extend standard regression-decomposition methods to estimate separately the contribution of the woman's own education, and the contribution of household relationship and partner education. In a standard regression decomposition, either all characteristics or all coefficients are substituted of one group is compared for the other groups'. Our method is instead a simplified version of a "detailed" regression decomposition in which the contributions of single variables and their coefficients are each estimated. Kim (2010, 2013) discusses the challenges and limitations of detailed regression decomposition, notably those of the averaging method proposed by Yun (2005), and concludes that no method is free of bias or arbitrariness, and that application-dependent implementations are needed. Our decomposition design is accordingly shaped by theoretical and substantive concerns, as follows. We begin with the disadvantaged minority (Black or Hispanic) new-mother poverty rate and then make three substitutions from the non-Hispanic White new-mother characteristics and coefficients. The substitutions are, in order, White women's distribution of own education, White women's distribution of household relationship and partner education conditional on own education, and White women's coefficients to transform own education and household relationship and partner education into

poverty or poverty avoidance. The final substitution takes us to the poverty rate of White new mothers. Formally, we analyze three components of White-minority difference in the new-mother poverty rate. The first is $\Pr_i\{\text{Poor} \mid r, e\}$ obtained from regression equation (1), where i indexes race/ethnic group, e denotes a 4-category variable for own education, and r denotes a 6-category variable for household relationship and partner education. Both own and partner education are code into four education categories: less than high school graduate, high school graduate, some college, and bachelor's degree and up. We code household relationship into unpartnered household head, non-head, and married or living with a primary-family cohabiting partner. The second component of the decomposition is the distribution $h_i(r \mid e)$ of household relationship and partner education conditional on own education (estimates of which are shown below in Table 2); and the third component is the unconditional distribution $g_i(e)$ of own education (shown below in Tables 1 and 3). We write the decomposition equation as:

$$\Pr\{\text{Poor}\} = \sum_r \sum_e \Pr_i\{\text{Poor} \mid r, e\} * h_i(r \mid e) * g_i(e) \quad (2)$$

The ordering of the three components in this equation reflects their order of substitution, proceeding from right to left. Denote by u the minority group (Black or Hispanic) and by v the non-Hispanic White group. The decomposition of equation (2) proceeds as follows.

- I. $\Pr\{\text{Poor}\} = \sum_r \sum_e \Pr_u\{\text{Poor} \mid r, e\} * h_u(r \mid e) * g_u(e)$
- II. $\Pr\{\text{Poor}\} = \sum_r \sum_e \Pr_u\{\text{Poor} \mid r, e\} * h_u(r \mid e) * g_v(e)$
- III. $\Pr\{\text{Poor}\} = \sum_r \sum_e \Pr_v\{\text{Poor} \mid r, e\} * h_v(r \mid e) * g_v(e)$
- IV. $\Pr\{\text{Poor}\} = \sum_r \sum_e \Pr_v\{\text{Poor} \mid r, e\} * h_v(r \mid e) * g_v(e)$

The overall difference in poverty between the minority and White groups is given by I – IV. The component contributions to this overall difference are calculated through successive subtraction:

I – II \equiv the contribution of lower own educational attainment of minority versus White new mothers to the overall poverty rate difference.

II – III \equiv the additional contribution to the overall poverty rate difference of White-minority differences in household relationship and partner education, having already raised the own educational attainment of minority new mothers to that of White new mothers.

III – IV \equiv the advantage White new mothers have over minority new mothers in transforming their own education, household relationship, and partner education into poverty avoidance.

Order effects are almost always important quantitatively in a decomposition analysis, and are sometimes addressed by various forms of averaging (e.g., Das Gupta 1978). Our choice to prioritize the above order of substitution over other potential orders follows from theoretical and substantive reasoning. Own education is a fundamental determinant of earnings. Theory of partnering and assortative mating additionally points to positive assortative mating on education in both marital and cohabiting relationships (Schwartz 2010). Racial/ethnic exogamy is higher for minorities than for Whites, but among minorities exogamy rates are especially low for Black women (Crowder and Tolnay 2000; Schwartz 2013). We note that although this indicates limited opportunity for improving partner matches especially for Black new mothers who would gain additional own-education, our counterfactual simulations do not attempt to address such constraints in any kind of equilibrium-matching way.

The choice of regressor reference category of categorical variables in a detailed decomposition also affects the estimated contribution of the different components (Yun 2005; Kim 2013). Again, our choice of reference categories in equation (1) is supported by theoretical and substantive rationale. The reference categories for both e and r are chosen as those with

the highest poverty risk: own education less than high school for e ; and unpartnered household head for r . Empirically, we find that having any partner (including a partner with less than high school education) has a poverty-reducing association relative to living as an unpartnered household head, and that being an unmarried non-head also has a poverty-reducing association compared to being an unpartnered household head.

Results

[TABLE 1 ABOUT HERE]

In Table 1, we compare poverty and socio-demographic characteristics of women who did and did not recently give birth, for the three largest race/ethnic groups: non-Hispanic Whites, non-Hispanic Blacks, and Hispanics. Overall, 13.2% of non-Hispanic White women aged 15 to 49 who gave birth in the last year were poor (that is, living in a poor household). This is 1.52 times the poverty rate (8.7%) of White women aged 15 to 49 who did not give birth in the last year. Being of disadvantaged minority (Black or Hispanic) race/ethnicity was associated with rates of poverty between 2 and 3 times as high as those of non-Hispanic White women, both among those who did and who did not give birth in the last year. Overall, 37.8% of Black and 28.8% of Hispanic women aged 15 to 49 who gave birth in the last year were poor. Poverty rates were higher among foreign-born than U.S.-born Hispanic new mothers, at 31.6% and 26.0% respectively.

The degree to which there are differences by race/ethnicity in how much giving birth changes the poverty rate is sensitive to the metric chosen. As a simple ratio of poverty rates (or percentage increase in poverty rate), all three race/ethnic groups experience similar increases

in poverty between those who did and did not give birth in the last year: 52%, 63%, and 55% higher poverty rates respectively for White, Black, and Hispanic women who gave birth in the previous year. Because of the much higher base level of poverty rates of Black and Hispanic women, however, their odds ratios of poverty between those who did and did not give birth in the last year are much higher. These odds ratios, which are calculated as $[p/(1-p)]_{\text{birth}} / [p/(1-p)]_{\text{no-birth}}$, are 3.41 and 2.67 for Black and Hispanic women, versus 1.91 for non-Hispanic White women. This serves as a useful caution and guide to the interpretation of odds ratios from logistic regression estimates below.

We present White, Black, and Hispanic proportions of all women giving birth (including those from other race/ethnic groups) and proportions of all women who were poor in the year they gave birth. White women contributed 55.1% of all births but only 35.8% of all women giving birth while poor. In contrast, Black women contributed 14.1% of all births but 26.3% of all women giving birth while poor, a ratio of 1.86. Hispanic women also contributed disproportionately to births while poor (31.4%) compared to their 22.1% of all births, a ratio of 1.42. Foreign-born Hispanic women contributed 18.6% of U.S. births to women who were poor in the year they gave birth, versus their 12.0% of all births. U.S.-born Hispanic women were the minority group whose representation among poor new mothers was most similar to their overall representation among new mothers, contributing 12.8% of U.S. births to women who were poor in the year they gave birth, and 10.1% of all births, a ratio of 1.27.

Women's own educational attainment was highest for White new mothers, and next highest, but quite a lot lower, for Black new mothers. Only 7.7% of White new mothers had less than a high-school-graduate education and 30.1% were high school graduates, whereas the corresponding percentages of all Black new mothers were respectively 16.3% and 41.6%. U.S.-

born Hispanic new mothers' education levels approached those of Black women, but were somewhat lower at 20.7% and 41.5% of new mothers respectively with less than a high school graduate and a high school graduate level of education. Consistent with the lower education levels in the main countries of origin in the main Hispanic-immigrant sending countries (Rendall and Parker 2014; Marteleto et al 2012), foreign-born Hispanic new mothers have much lower levels of education than both White new mothers and U.S.-born Hispanic new mothers, with as many as 42.6% having less than a high-school-graduate education.

There are some race/ethnic and nativity differences by education in distributions of those giving birth versus not giving birth in the last year, although the differences are not large. Those with less than a high school graduate education are underrepresented among childbearers in all three race/ethnic groups, although this will be partly because those who do not give birth include current high school students whose completed education level will eventually be greater than their current level, whereas those who gave birth while not having graduated high school may be less likely to eventually increase their educational attainment. High school graduate women are proportionately overrepresented among Black and Hispanic women giving birth (41.6% and 38.6% of Black and Hispanic childbearers were high school graduates, higher than the 35.3% and 33.5% of Black and Hispanic non-childbearers), but not among Whites (30.1% of childbearers and 29.8% of non-childbearers).

Childbearers are concentrated in the 20-34 year old age groups across all three race/ethnic groups, but are more likely to be under 25 for Black and Hispanic women and more likely to be 25 to 34 years old for White women. U.S.-born Hispanic women are younger than all other groups in general, and younger than all other new mothers in particular. Foreign-born Hispanic new mothers instead follow a similar age pattern to White new mothers. This follows,

however, from their being underrepresented among younger women in the U.S., many having arrived in the U.S. as adults (see again Rendall and Parker 2014 on Mexican-origin immigrants).

Turning to relationship status, larger proportions of minority than White women are unpartnered or unmarried when giving birth. Black new mothers are much less likely to be married or cohabiting (where cohabiting includes only those who are, with their partner, heading the household) than are White new mothers. The majority of Black new mothers are either the unpartnered household head (31.2%) or are non-heads in a parent or parents' or other relative or relative's household (33.3%), whereas these two categories of household relationship are found among only 6.9% and 11.9% of White childbearers. Together just over a third of Hispanic childbearers are the unpartnered household head (11.2%) or are non-head (23.7%). As we will see below, being an unpartnered household head when giving birth is associated with the highest risk of poverty. Despite having the lowest educational levels, foreign-born Hispanic childbearers are the most likely across the minority groups to be married (61.0%). This will in part be due to selective migration of those already married before their move to the U.S. (Cerrutti and Massey 2001). Only 26.5% of Black childbearers are married and only 9.0% are cohabiting (as household head or partner of head).

Conditional on being partnered, the distributions of partner's education, both for women who did and did not give birth in the last year, differ moderately between Whites and Blacks. Partner's education is substantially lower for Hispanics and is especially low for foreign-born Hispanics. We examine this in more detail in Table 2, where we compare both the likelihood of having a partner and that partner's educational attainment by the woman's own educational attainment, again separately by race/ethnic group, and additionally splitting Hispanics into U.S-born and foreign-born.

[TABLE 2 ABOUT HERE]

We present in Table 2 among women who gave birth in the last year, their distribution by household relationship and, if either living with a spouse or cohabiting partner, partner's education. Note again that cohabitation is identified only when the new mother or her cohabiting partner is the household head. The differences by race/ethnicity in this table are very large. At every education level, substantial proportions of Black new mothers are living as either unmarried non-head or as unpartnered household head. 84.0% of Black new mothers with less than a high school graduate education are living as either unmarried non-head or as unpartnered household head, decreasing with own education to 29.8% of college graduate Black new mothers; 48.8% of White new mothers and 39.0% of Hispanic new mothers with less than a high school graduate education are living as either unmarried non-head or as unpartnered household head, decreasing with own education to only 4.2% of college graduate White new mothers, but still 13.9% of college graduate Hispanic new mothers. Also notable is that, conditional on being without a partner, White and Hispanic new mothers are much more likely than are Black new mothers to be living as an unmarried non-head of household. Although U.S.-born Hispanic new mothers are substantially more educated than are foreign-born new Hispanic mothers, of whom two fifths did not graduate from high school, foreign-born Hispanic new mothers are much more likely to be partnered than are U.S.-born Hispanic new mothers. This is true overall, but the difference is especially strong by education. In particular, foreign-born Hispanic new mothers with less than a high school graduate level education compensate with much higher proportions partnered than U.S.-born Hispanic new mothers or

White new mothers. Foreign-born Hispanic new mothers are somewhat less likely to be an unpartnered head conditional on not being partnered than are U.S.-born Hispanic new mothers, a difference that may be attributed to lesser likelihood of having parents and other kin living in the U.S. (Van Hook and Glick 2007). The greater propensities of foreign-born than U.S.-born Hispanic mothers to be married or partnered will in part be due to assimilation of those born in the U.S. to the lower marriage rates and higher single motherhood rates in the U.S. than in the country of origin (Landale and Oropesa 2007), but also because of the effects of foreign-born Hispanic women's migration to join a husband already in the U.S. in making them more likely to be married (or partnered) when giving birth in the U.S. (Cerrutti and Massey 2001).

A much greater fraction of White than Black new mothers have a co-resident partner with at least as much education as they do. Hispanic women with less than a high-school graduate education have more favorable partner-education distributions than the other two race/ethnic groups, and have more favorable partner-education distributions than do Black new mothers at every own education level. White women, however, have the most favorable partner-education distributions of the three race/ethnicity groups at every level from high school graduate upwards.

[TABLE 3 ABOUT HERE]

In Table 3, we show estimates from binomial logistic regressions of poverty on own education, household relationship, and partner's education if married or cohabiting. These regressions evaluate the change in the likelihood of poverty associated with differences in own human capital (education) and access to resources of others: a spouse or partner or other

adults heading the household. The level of resources of others is represented by the education of a spouse or partner, in the case the woman is married or cohabiting, and by an interaction of the woman's own educational attainment and the status of being a non-head in the case that she is living with others who include a primary-family, household head. Importantly for the primary aim of this study, we interact these own and others' resource variables with whether the woman gave birth in the previous year. Other factors potentially important for poverty are the presence of other children, the woman's current age, and the year. We intentionally omit these variables in the present analyses to be able to more clearly represent the total effects of our primary variables of interest, being the woman's ability to avoid poverty through the application of her own human capital and access to the human capital and other resources of a partner and other family.¹ We also simplify the educational relationship of others' resources to poverty avoidance by assuming a simple linear (in the log odds) relationship of change across the four possible education levels of the partner and across the four possible education levels of the woman when she is living as a non-head. The main effect of the woman's own education on poverty and the interaction of her own education with whether she gave birth in the previous year, however, are both allowed to vary differently by the three education-level increases (to

¹ Controls for year did not change any of the main results. The relationship to poverty of age is complex and strongly associated with household relationship. In particular, whether being younger is associated with higher or lower poverty depends very much on whether the woman lives as a non-head, which we found to be protective against poverty especially when the woman is younger, or partnered, which we found to be more protective against poverty but less protective when she is younger.

high school graduate, to some college, and to college graduate).

These estimates, presented as odds ratios (ORs) with 95% confidence intervals, provide substantially higher statistical precision than in standard sample-survey analyses, afforded here by the very large ACS sample sizes. Where the ORs do not include 1, the association with poverty is statistically significant at the .05 level, as either poverty reducing ($OR < 1$) or poverty increasing ($OR > 1$). The overall summary of the race/ethnic similarities and differences is that White, Black, and Hispanic women are much more similar than they are different in their magnitudes and directions of associations of poverty-increase or poverty-avoidance. This means that it will be the less favorable distributions of the characteristics themselves that will be the main drivers of higher poverty of Black and Hispanic women giving birth, as we see below in the decomposition analyses.

The reference category for these regressions is unpartnered women who are the householder, who have less than high school graduate education, and who did not have a birth in the previous year. The base level of poverty for this group is very high. Therefore using the metric of the odds ratio produces large magnitudes relative to this group. In particular, for all three race/ethnic groups, having had a birth in the last year is associated with very large increases in the odds of being poor. For non-Hispanic White and Black women who are unpartnered household heads with less than high school graduate education, having a birth in the past year elevates their odds of being poor respectively by a factor of 4.20 (CI: 4.00, 4.42) for Whites and of 3.60 (CI: 3.36, 3.85) for Blacks. For Hispanic women in this status, having a birth in the past year elevates their odds of being poor by 2.85 (CI: 2.70, 3.02), with foreign-born Hispanic women's odds elevated by 2.44 (CI: 2.25, 2.65) and U.S.-born Hispanic women's odds elevated by 3.33 (CI: 3.07, 3.61). A lack of own economic resources to manage both the

addition of a person to the household and the challenge of obtaining income in the year in which a child is born among low-educated household-heading single mothers is the interpretation we draw from these very high poverty odds ratios.

As expected, a woman's own education level has a large poverty-reducing association, after controlling for her household relationship and partner status and for a partner's education level. The magnitudes of poverty reduction with more education are large and are quite similar across White, Black, and Hispanic women. For White, Black, and U.S.-born Hispanic women, the poverty-reducing association of own education is even greater in a year in which she gives birth.

Living as a non-head is associated with very large magnitudes of poverty reduction relative to living as a household head for all three race/ethnic groups. The generally positive interactions of non-head with own education (ORs greater than 1) show that the degree of poverty alleviation through living as an unpartnered head is higher for those new mothers with less education (foreign-born Hispanic women being the only exception). We interpret this as being due to a combination of greater need for poverty alleviation among less-educated women and possibly greater selectivity into living as a non-head for resource-need motives among lower-education women. Poverty reduction associated with living as a non-head versus as unpartnered head is greater among women who had a birth in the last year, with very similar magnitudes of poverty reduction seen across White, Black, and Hispanic new mothers.

Having a partner, relative to being an unpartnered head, also reduces the likelihood of poverty for the reference education category of less than high school graduate educated woman. The partner reference category is, as for the woman, less than high school graduate. The magnitude of poverty reduction is nevertheless high relative to the reference category of

unpartnered household head, at odds ratios of 0.55 (CI: 0.54, 0.56), 0.56 (CI: 0.53, 0.59), and 0.54 (CI: 0.53, 0.56) respectively for White, Black, and Hispanic women. Having a birth in the past year is associated with additional poverty reduction when partnered across all three race/ethnic groups and both Hispanic nativity groups. Having a partner with more education is, unsurprisingly, associated with a greater likelihood of poverty avoidance, but not more so for women who just gave birth.

In summary, we interpret both the greater effect of having a partner when giving birth and the greater main effect of living with parents or with other relatives of non-relatives as non-head when giving birth, as indicating the importance to the new mother of having household economic resources in the year she gives birth, and we find this to be similar across all three race/ethnic groups and Hispanic nativity groups. With these resources, the new mother may be substantially more able to cope with the financial demands of the addition of a person to the household and the challenges of obtaining income in the year in which a child is born. We find relatively small differences in these associations with poverty across race/ethnic groups.

[TABLE 4 ABOUT HERE]

We show in Table 4 the decomposition of poverty of new mothers, again compared to women not giving birth in the last year, into the three component contributions described in equation (2) above. These are respectively the contributions of own education, of the resources brought by a partner or other household members, and of being able to translate more favorable distributions of own education and household and partner resources into poverty avoidance.

In Panel A, using the group's own distributions of characteristics and own coefficients,

we first consider the overall contribution of own education versus the combination of other (partner and household member) resources and of coefficients that transform own and others' resources into poverty avoidance. In the first two sets of numbers, we show the previously displayed (in Table 1) estimates of poverty proportions (I.) and own-education distributions (1) of White, Black, and Hispanic women. This time, however, the poverty proportions are generated as the product of the education distribution and regression-predicted own-education-specific poverty (shown in (a)). The combination of other (partner and household member) resources and regression coefficients that transform own and others' resources into poverty avoidance together account for the substantially higher own-education-specific poverty rates of Black and Hispanic new mothers compared to of White new mothers.

We focus on the columns of "Birth = 1" to understand the respective sources of higher Black and Hispanic poverty at birth compared with White poverty at birth. Notable is that, compared to Hispanic new mothers, the 37.8% of Black new mothers who are poor is less attributable to differences in own education and more to differences in the relationship of own education to poverty. At 61.9%, 41.6%, and 29.3% poverty rates for Black new mothers with less than high school, high school, and some college education, these are around 20 percentage points higher than the White new mothers' poverty rates of 38.6%, 21.2%, and 11.5% at those same own-education levels (see (a)).

The poverty rates by education of Hispanic new mothers are higher than for White new mothers at each education level, but the disparity is much less than for Black new mothers. This holds more or less similarly for both foreign-born and U.S.-born Hispanic new mothers. For example, although the proportion of high school graduates among new mothers (see (1)) is similar between Blacks and Hispanics (41.6% and 38.6%), the poverty rate among high school

graduates giving birth is substantially higher for these Black new mothers (44.0%) than for these Hispanic new mothers (28.1%). A substantially larger proportion of Black new mothers than Hispanic new mothers have some college education (27.8% versus 18.6%), but again their poverty rates are more than 1.5 times those of Hispanic new mothers with some college education (29.3% versus 17.6%).

These first breakdowns point to quite different processes generating the Black-White and Hispanic-White poverty disparities at birth. We investigate them further in counterfactual decompositions, shown in Panel B. We first substitute in the White own-education distributions, retaining the minority group's distributions of partner and household-relationship characteristics conditional on own education, and retaining the minority group's coefficients for transforming own education, partner, and household relationship characteristics into poverty or poverty avoidance (see equation II from the Data and Method section). This has the effect of reducing the Black poverty rate from 37.8% to 28.6% and reducing the Hispanic poverty rate from 28.8% to 18.9% (see Rows I and II in Table 4). The latter is a proportionately greater reduction in poverty, accounting for 63.7% of the total poverty rate gap between Whites and Hispanics versus 37.2% of the total poverty rate gap between Whites and Blacks (see I – II %s in the 'Component Contributions' rows of Table 4).

The second component of the decomposition of the poverty-rate disparity involves additionally substituting White distributions of partner and household-relationship characteristics conditional on own education, while still retaining the minority-group coefficients for transforming own education, partner, and household relationship characteristics into poverty or poverty avoidance (see equation III from the Data and Method section). A new set of own-education-specific poverty rates is computed for this, presented in Panel B, (b). For every education level,

the Black and Hispanic own-education-specific poverty rates are lower than in Panel A (a). These poverty-rate reductions are interpreted as due to the role of differences in partner and household relationship characteristics in inducing observed by education-specific White-minority poverty-rate disparities. For Black new mothers, the poverty rate of the modal, high-school-graduate group would be 33.3% whereas it is observed to be 44.0%; for the second largest, some-college group the poverty rate would be 17.4% whereas it is observed to be 29.3%. These 11 and 12 percentage-point reductions in own-education-specific poverty rates represent the consequences for the White-Black poverty gap of the very large disparities in household relationship status and partner-education distributions seen in Table 2. Whereas 73% of high-school-graduate White new mothers were seen in Table 2 to live with a husband or cohabiting partner with at least a high-school-graduate education, for example, this was true for only 25% of high-school-graduate Black new mothers.

When aggregated across all four own-education groups, using White women's own-education distributions, but still with Black new mothers' coefficients for the relationship of characteristics to poverty, 20.3% of Black new mothers would be poor if in addition to Whites' own education levels, they had White's education-specific distributions of household relationship and partner presence and education (Row III in Table 4). This is 8.3 percentage-points lower than the 28.6% of whom would be poor with White new mothers' own education distribution but still with Black new mothers' education-specific distributions of household relationship and partner presence and education (Row II). For Hispanic new mothers, the additional poverty reduction through counterfactually giving them White new mothers' education-specific distributions of household relationship and partner presence and education would reduce their overall poverty rate by much less, from 18.9% to 16.4%.

Finally, the remaining differences between minority and White poverty rates (measured by III – IV) are attributable to the greater difficulty that a minority-group new mother with a given level of own education and household relationship and partner education has in translating those characteristics into poverty avoidance. This accounts for an additional 29% of the Black-White poverty rate disparity and 20% of the Hispanic-White poverty rate disparity. This may be interpreted broadly as a “discrimination” component (e.g., Kim 2010). Unsurprisingly, it is larger for foreign-born than U.S.-born Hispanic new mothers, given the greater institutional barriers faced by the former (Rivera-Batiz 1999; Kaestner and Kaushal 2004): at 27% versus 14% of their respective total poverty-rate differences from White new mothers.

Discussion

We analyzed in the present study “perinatal poverty”, or poverty around the time of a birth. This was motivated in part by this being a critical time for infant and child development (Strully, Rehkopf, and Xuan 2010; Brumberg and Shah 2015; Duncan et al 2010), and in part to understand why poverty rates are higher just after a child’s birth than at any subsequent childhood age. Our findings that poverty around the time of a birth is especially high, and that household relationships and partner characteristics are important in poverty avoidance at birth, build on previous work that has found family-demographic factors to be important in explaining poverty in the U.S. (Lerman 1996; McKernan and Radcliffe 2005; Martin 2006; and Western, Bloome, and Percheski 2008). Because the U.S.’s family welfare policy is a means-tested one, its design should theoretically protect especially less-educated and unmarried women from poverty. In practice, however, means-test family-policy regimes do less to protect against poverty than do universalistic regimes (Brady and Buroway 2012). The results of the present

study suggest this may be even more the case around the time of a birth.

We found that Black and Hispanic women accounted for disproportionately high shares, at 26% and 31%, of all children born into poverty in 2005-2015, and that the poverty rates of Black and Hispanic new mothers are between two and three times as high as those of White new mothers (38%, 29%, and 13% poor respectively). These high proportions of Blacks and Hispanics among all poor newborns are nevertheless significantly lower than suggested by official poverty rates of all children (e.g., U.S. Census Bureau 2014). Lichter (2013, p.367), for example, reports a 57% poverty rate for ethnic-minority newborns in 2006-2010 using the official poverty measure. We again caution that the official poverty measure is significantly inflated by not taking into account cohabiting partners' resources (Snyder et al 2006).

Using a combination of cross-tabulation, regression, and regression decomposition, we found that quite different processes generate the Black-White and Hispanic-White disparities. As much as 64% of the higher poverty of Hispanic new mothers, versus 37% of the higher poverty of Black new mothers, is attributable to their lower education, whereas 33% of the higher poverty of Black new mothers, versus only 16% of the higher poverty of Hispanic new mothers, is attributable to the greater likelihood that Black new mothers will be unpartnered, will have a lower-educated partner than themselves or, if not partnered, have a lower likelihood of living as a subfamily head or subfamily partner. Together, these differences in distributions of own education and household relationships and partner education thereby account for 70% of the Black-White disparity and 80% of the Hispanic-White disparity in poverty when giving birth. The contribution of disadvantage in translating own, partner's, and household co-residents' characteristics into poverty avoidance is especially small for Hispanics when viewed as a percentage-point difference: Hispanic new mothers' poverty rate would be only 3 percentage

points higher than that of White new mothers, whereas Black new mothers' poverty rate would be 8 percentage points higher.

Hispanic women's greatest source of disadvantage is thus their low own educational attainment, whereas a major source of Black women's disadvantage is found in their much less favorable partner and partner's education distributions, together with their higher propensity to be heading a household when unpartnered at the time of giving birth. Whereas Hispanic women of a given education level are able to obtain relatively similar resource-generating household relationships and partner education levels as are White women, this is not the case for Black women. For example, we found that whereas 73% of high-school-graduate White new mothers lived with a husband or cohabiting partner with at least a high-school-graduate education, this was true for only 25% of high-school-graduate Black new mothers. The disadvantages of Black women in the partner pool provided by Black men has long been asserted to be a major factor in their high rates of single motherhood, whether measured by low employment (Wilson 1987) or high incarceration (Western and Wildeman 2009). Our findings are consistent also with previous findings of both less favorable outcomes on positive educational assortative matching and low racial/ethnic exogamy among Black women (Crowder and Tolnay 2000; Schwartz 2013).

Unpartnered new mothers may rely on own parents and other relatives to avoid poverty, and we found that new mothers living as a non-head were much less likely to be poor than were new mothers living as household head. We found that Black new mothers were again the most disadvantaged in their obtaining this form of resources, conditional on being unpartnered when having a birth. Extended-family households were less prevalent among unpartnered Black new mothers than among White new mothers, perhaps surprisingly given earlier research (e.g.,

Burton 1990; Hofferth 1994; Kamo 2000), whereas extended-family households were about equally prevalent among unpartnered Hispanic new mothers as among unpartnered White new mothers.

We additionally analyzed Hispanic new mothers by their nativity (U.S.-born versus foreign-born). These analyses are important for two reasons. First, we showed that foreign-born Hispanic new mothers constituted 12% of all new mothers in the 2005-2015 period, versus 10% for U.S.-born Hispanic new mothers, and that foreign-born Hispanic new mothers constituted about a third of all Black and Hispanic new mothers. Foreign-born Hispanic new mothers, moreover, constituted 19% of all *poor* new mothers in the 2005-2015 period, whereas U.S.-born Hispanic new mothers constituted 13%. Second, separating foreign-born from U.S.-born provides a view of the direction of Hispanic new-mother poverty with higher fractions of births to U.S.-born mothers in the future (Vespa, Armstrong, and Medina 2018). Whereas foreign-born Hispanic new mothers have much lower educational attainment than White or Black new mothers, U.S.-born Hispanic new mothers currently have approximately the same educational attainment as Black new mothers. U.S.-born Hispanic new mothers' poverty rates are accordingly lower than those of foreign-born Hispanic new mothers (26% versus 32%), notwithstanding foreign-born Hispanic new mothers' greater likelihood of being partnered than U.S.-born Hispanic new mothers of any given education level. The lower poverty rate of U.S.-born Hispanic new mothers than either foreign-born Hispanic new mothers or Black new mothers points to a further way in which the processes of disadvantage that generate poverty at birth are less entrenched in the Hispanic than the Black population, even while demographic shifts mean that poor Hispanic newborns now outnumber poor Black newborns.

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Appendix: The American Community Survey

We use annual data from the 2005-2015 American Community Surveys (ACS), IPUMS data (Ruggles et al. 2015), a 1% sample of U.S. population. We use years 2005-2011 and 2013-2015. Births were coded from the ACS question asked all women aged 15-50: “Has this person given birth to any children in the past 12 months?” We excluded women from 2012 following the Census Bureau’s decision to suppress data from the “any birth in the last 12 months” question for 59 PUMAS in Florida, Georgia, Kansas, Montana, North Carolina, Ohio and Texas because of data quality problems (IPUMS no date).

We calculate a poverty status variable for each individual in the ACS that is constructed at the household level using household income, household family structure, and official poverty thresholds from the U.S. Census Bureau (no date). We assign poverty status of women ages 15 to 49, both those who gave birth in the last year and those who did not, based on their household income and their household composition. The ACS assessment of household income is a summation of the total money income during the previous 12 months of all household members age 15 and older who were present and assessed in the household at the time of the ACS survey. Because ACS surveys are conducted on a rolling basis over the course of a given year, the historical time frame of respondents reporting on income depends on the date in the year in which they are assessed. In order to estimate income over a fixed calendar year, the ACS adjusts the rolling reports of income to December calendar year dollars using monthly CPI factors (Turek et 2005). Respondents report total pre-tax personal cash income or losses from all sources. Income questions in the ACS are much less detailed than income questions in the Current Population Survey (CPS), combining many more types of income into one question; however, the Census Bureau determined that the difference in poverty rates estimated using

this shorter number of questions on income and the longer series of questions on income in the CPS was only 0.5 percentage points (Turek et al 2005).

In order to identify the appropriate threshold of poverty-level income for a household in a given year, we categorize households by the compositional characteristics used by the Census Bureau to determine poverty income thresholds for families. These are family unit size and number of related children under age 18. We substitute a calculation of the number of persons in the household for “size of family units” and a calculation of the number of children under age 18 in the household for the number of “related children under 18 years”. We were able to construct the number of children under 18 in the household using the unique household identifier and the fact that all individuals in the household were surveyed by the ACS (i.e., we summed the number of ACS respondents under 18 years within a household).

A limitation of the ACS data for measuring poverty that is shared by other cross-sectional surveys, including the CPS, is the difference in the reference time-*period* over which income and births are assessed compared with the reference time-*point* for household composition. Both income and births are reported for the 12-month interval preceding the survey (with income dollar amounts adjusted to a fixed point in the calendar year for all respondents). By contrast, household composition is assessed at the time of the survey. Thus, the household income measure excludes people who lived in the household during the previous year but were no longer in the household at the time of the survey and it includes people who joined the household by the time of the survey but were not living in the household for the entirety of the last year. The implication of the former exclusion should be an underestimate of household income for the previous year, while the implication of the later inclusion should be an overestimate of household income for the previous year.

We also ascertain woman's sociodemographic characteristics in the ACS, including the mother's race/ethnicity, educational attainment, and her marital status and household relationship at the time of the survey. We characterize the household relationship into which a child is born on the basis of the marital status of the mother, her cohabitational status (if she is either the household head or the partner of the household head), and the mother's relationship to the household head. Among the unmarried mothers we distinguish those who have a cohabiting partner and those who don't. Among the remaining women, we distinguish those who are the household head (household reference person) and those who are not. Due to the limitations of the questions about cohabitation (i.e., that relationships are only identified respective to the household head), we do not attempt to identify cohabitators who are not either themselves the household reference person or who have a partner who is the household reference person. This is in part because we prioritize the household head as an assumed substantial source of economic resources (see, for example, Leach 2014), and in part due to the inherent ambiguities in identifying subfamily cohabitators in the ACS.

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Table 1 Distributions of women ages 15 to 49 by whether they gave birth in the previous year, 2005 to 2015

	White			Black			Hispanic			Foreign-born Hispanic			US-born Hispanic		
	Birth=1	Birth=0	χ^2	Birth=1	Birth=0	χ^2	Birth=1	Birth=0	χ^2	Birth=1	Birth=0	χ^2	Birth=1	Birth=0	χ^2
			Birth vs No Birth			Birth vs No Birth						Birth vs No Birth			Birth vs No Birth
Poverty^a															
Odds Ratio, birth:no birth	0.132	0.087	***	0.378	0.232	***	0.288	0.186	***	0.316	0.213	***	0.260	0.164	***
Ratio of probabilities, birth:no birth	1.91			3.41			2.67			2.75			2.56		
	1.52			1.63			1.55			1.48			1.59		
Proportions giving birth and proportions of all births while poor															
Proportion of women giving or not giving birth	0.551	0.607		0.141	0.136		0.221	0.173		0.120	0.086		0.101	0.087	
Proportion of poor women giving or not giving birth	0.358	0.417		0.263	0.248		0.314	0.255		0.186	0.143		0.128	0.112	
ratio of proportion of poor to proportion of all women	0.650	0.686		1.863	1.832		1.422	1.474		1.546	1.666		1.274	1.284	
Education			***			***			***			***			***
Less than High School Graduate	0.077	0.131		0.163	0.182		0.318	0.328		0.426	0.413		0.207	0.256	
High School Graduate	0.301	0.298		0.416	0.353		0.386	0.335		0.358	0.334		0.415	0.336	
Some College	0.252	0.264		0.278	0.290		0.186	0.212		0.124	0.147		0.250	0.268	
Bachelors Degree or higher	0.370	0.306		0.143	0.175		0.109	0.125		0.092	0.106		0.128	0.140	
Age			***			***			***			***			***
15-19	0.042	0.129		0.102	0.150		0.089	0.159		0.049	0.068		0.131	0.238	
20-24	0.193	0.131		0.300	0.138		0.244	0.144		0.193	0.097		0.298	0.184	
25-29	0.287	0.131		0.255	0.135		0.270	0.143		0.275	0.138		0.265	0.147	
30-34	0.270	0.126		0.181	0.132		0.219	0.145		0.253	0.168		0.184	0.126	
35-39	0.149	0.140		0.106	0.141		0.124	0.147		0.160	0.187		0.087	0.113	
40-44	0.045	0.162		0.041	0.151		0.041	0.139		0.057	0.183		0.026	0.102	
45-49	0.015	0.181		0.016	0.152		0.011	0.122		0.014	0.159		0.009	0.091	
Relationship Status^b			***			***			***			***			***
Married	0.712	0.461		0.265	0.209		0.524	0.390		0.610	0.518		0.435	0.280	
Cohabiting	0.101	0.077		0.090	0.053		0.127	0.073		0.129	0.078		0.125	0.069	
Unpartnered Household Head	0.069	0.172		0.312	0.360		0.112	0.166		0.088	0.156		0.136	0.173	
Unmarried Non-Head	0.119	0.290		0.333	0.378		0.237	0.371		0.173	0.247		0.304	0.478	
Spouse or Partner's Education^c			***			***			***			***			***
Less than High School Graduate	0.062	0.058		0.081	0.084		0.328	0.316		0.437	0.428		0.180	0.153	
High School Graduate	0.317	0.357		0.404	0.433		0.382	0.362		0.352	0.331		0.423	0.406	
Some College	0.239	0.241		0.280	0.274		0.164	0.178		0.113	0.127		0.235	0.252	
Bachelors Degree or higher	0.382	0.344		0.234	0.209		0.125	0.144		0.098	0.114		0.163	0.188	
Unweighted N	224,062	4,055,999		41,606	673,589		72,809	939,390		35,894	419,625		36,915	519,765	

Notes: a. Poverty is defined using at the household level, including both related and unrelated household members

b. Cohabitators are identified only if the woman or her partner is household reference person ("head")

Group differences from chi-squared and t-tests (birth vs no birth), *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, + $p < 0.1$

c. Among those with a spouse present in the household or with a cohabitor if the woman or her partner is household reference person ("head")

Source: American Community Survey (ACS) 2005-2011 and 2013-15 (2012 is missing for some geographic areas the variable for whether a woman gave birth in the last year)

Table 2 Distributions of household status and partner education for women ages 15 to 49 who gave birth in the previous year, 2005 to 2015, by own race/ethnicity and education

Own Race/ethnicity:	White				Black				Hispanic			
	Less than HS	High School	Some College	College Grad.	Less than HS	High School	Some College	College Grad.	Less than HS	High School	Some College	College Grad.
<i>Relationship and Partner Education^a</i>												
Unmarried Non-Head	37.1	19.8	9.4	1.8	50.9	37.9	27.0	12.0	27.4	26.9	20.4	7.6
Unpartnered Household Head	11.7	10.2	7.9	2.4	33.1	33.8	33.0	17.8	11.6	11.7	12.2	6.3
Partner Less than HS educ	22.0	7.3	3.4	0.7	5.7	3.0	2.0	1.1	41.7	15.4	8.7	5.0
Partner High School	22.6	40.5	29.3	12.1	7.3	17.0	14.7	14.1	15.0	34.2	26.3	18.2
Partner Some College	4.7	15.1	31.3	17.8	2.2	6.1	16.6	17.3	3.1	8.7	23.1	18.7
Partner College Grad.	1.8	7.0	18.6	65.1	0.8	2.3	6.7	37.7	1.2	3.1	9.3	44.2
<i>All</i>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Unweighted N	15,310	64,294	55,283	89,175	6,623	17,107	11,206	6,670	21,435	27,921	13,840	9,613

Own ethnicity and nativity:	Hispanic, Foreign Born				Hispanic, U.S. Born			
	Less than HS	High School	Some College	College Grad.	Less than HS	High School	Some College	College Grad.
<i>Relationship and Partner Education^a</i>								
Cohabiting								
Unmarried Non-Head	18.5	18.8	15.4	8.1	46.5	34.1	22.9	7.3
Unpartnered Household Head	9.1	8.9	10.2	5.8	17.0	14.2	13.2	6.6
Partner Less than HS educ	52.6	21.0	13.2	8.1	18.3	10.5	6.3	2.7
Partner High School	15.4	39.4	28.1	20.0	14.2	29.5	25.3	16.9
Partner Some College	3.0	8.4	21.5	14.8	3.2	9.0	24.0	21.6
Partner College Grad.	1.4	3.6	11.4	43.2	0.8	2.7	8.3	44.9
<i>All</i>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Unweighted N	14,477	12,857	4,675	3,885	6,958	15,064	9,165	5,728

Notes: a. Among those with a spouse present in the household or with a cohabitor if the woman or her partner is household reference person ("head")

Source: ACS 2005-2011 and 2013-15 (2012 is missing for some geographic areas the variable for whether a woman gave birth in the last year)

Table 3 Logistic regression of poverty on education, household relationship, and partner education, and whether birth in the previous year, 2005 to 2015, women ages 15 to 49, by race/ethnicity and nativity (Odds Ratios)

	non-Hispanic White			Black			Hispanic			foreign-born Hispanic			US-born Hispanic		
	OR ^a	CI ^a		OR	CI		OR	CI		OR	CI		OR	CI	
Birth	4.20	4.00	4.42	3.60	3.36	3.85	2.85	2.70	3.02	2.44	2.25	2.65	3.33	3.07	3.61
<i>Own education (versus < high school graduate)</i>															
High School Graduate	0.41	0.40	0.41	0.42	0.41	0.43	0.54	0.53	0.55	0.63	0.62	0.64	0.42	0.41	0.43
Some College	0.30	0.30	0.31	0.22	0.22	0.23	0.33	0.32	0.34	0.39	0.38	0.40	0.26	0.25	0.27
Bachelors degree or higher	0.09	0.09	0.09	0.06	0.06	0.06	0.15	0.15	0.16	0.25	0.24	0.26	0.09	0.08	0.09
<i>Birth interactions with Own education</i>															
Birth * High School Graduate	0.93	0.89	0.97	0.88	0.82	0.94	1.01	0.97	1.05	1.05	1.00	1.11	0.91	0.86	0.98
Birth * Some College	0.65	0.62	0.69	0.79	0.73	0.85	0.94	0.88	0.99	1.02	0.93	1.12	0.83	0.77	0.90
Birth * Bachelors degree or higher	0.74	0.69	0.78	0.90	0.80	1.00	0.99	0.89	1.10	1.03	0.90	1.18	0.83	0.71	0.98
<i>Household relationship (versus Unpartnered household head)</i>															
Unmarried Non-Head	0.10	0.10	0.10	0.22	0.22	0.23	0.27	0.26	0.27	0.33	0.32	0.33	0.20	0.20	0.21
Birth * Unmarried Non-Head	0.60	0.57	0.63	0.57	0.54	0.61	0.61	0.57	0.65	0.61	0.55	0.67	0.61	0.56	0.66
Unmarried Non-Head * Education ^b	1.72	1.70	1.73	1.29	1.27	1.31	1.07	1.06	1.09	0.96	0.94	0.98	1.25	1.23	1.27
Partnered	0.55	0.54	0.56	0.56	0.53	0.59	0.54	0.53	0.56	0.40	0.39	0.41	0.33	0.32	0.34
Birth * Partnered	0.66	0.63	0.69	0.77	0.70	0.85	0.72	0.68	0.76	0.81	0.74	0.88	0.68	0.62	0.75
<i>Partner's education</i>															
Education ^b	0.59	0.59	0.60	0.6281	0.61	0.64	0.67	0.67	0.68	0.72	0.71	0.73	0.60	0.59	0.61
Birth * Education ^b	1.00	0.98	1.02	1.01	0.95	1.07	0.93	0.90	0.96	0.91	0.87	0.95	0.98	0.93	1.04
Unweighted N	4,280,061			715,195			1,012,199			455,519			556,680		

Source: American Community Survey 2005-2011 and 2013-2015

Notes:

a. OR = Odds Ratio; CI = 95% Confidence Interval

b. Education is measured in units of additional qualifications --- high school graduate, some college, college graduate

Table 4 Poverty decompositions, White versus Black, Hispanic, and foreign- and U.S.-born Hispanic women ages 15 to 49 by whether they gave birth in the previous year, 2005 to 2015

	ACS, White		ACS, Black		ACS, Hispanic		ACS, Foreign-born Hispanic		ACS, US-born Hispanic	
	Birth=1	Birth=0	Birth=1	Birth=0	Birth=1	Birth=0	Birth=1	Birth=0	Birth=1	Birth=0
Panel A. Factoring Observed Poverty into the Distribution of Own Education and the Poverty Rate Association with Own Education										
I. Overall Poverty^a = (I) * (a)										
Odds Ratio, birth:no birth	1.91		3.41		2.67		2.75		2.56	
Ratio of probabilities, birth:no birth	1.52		1.63		1.55		1.48		1.59	
(I) Own Education										
Less than High School Graduate	0.077	0.131	0.163	0.182	0.318	0.328	0.426	0.413	0.207	0.256
High School Graduate	0.301	0.298	0.416	0.353	0.386	0.335	0.358	0.334	0.415	0.336
Some College	0.252	0.264	0.278	0.290	0.186	0.212	0.124	0.147	0.250	0.268
Bachelors degree or higher	0.370	0.306	0.143	0.175	0.109	0.125	0.092	0.106	0.128	0.140
(a) Regression-predicted Proportion Poor by Own Education, Own Race/ethnic Group's Coefficients applied to Own Group's Characteristics										
Less than High School Graduate	0.386	0.144	0.619	0.378	0.437	0.283	0.420	0.293	0.475	0.269
High School Graduate	0.212	0.110	0.440	0.281	0.281	0.179	0.291	0.192	0.273	0.168
Some College	0.115	0.097	0.293	0.184	0.176	0.124	0.188	0.129	0.171	0.121
Bachelors degree or higher	0.025	0.031	0.087	0.060	0.070	0.059	0.104	0.082	0.044	0.044
Panel B. Counterfactual Decompositions - minority coefficients, substituting White e (own education) and then also White r (hh rel and partner education)										
II. Overall Poverty as the product of education distribution (I) for Whites * education-specific proportions (a) for the Minority group applied to the Minority group partner and household relationship characteristics										
Odds Ratio, birth:no birth			0.286	0.182	0.189	0.141	0.206	0.143	0.178	0.118
Ratio of probabilities, birth:no birth			2.69		1.92		2.11		2.08	
			1.57		1.33		1.43		1.51	
(b) Regression-predicted Proportion Poor by Own Education, Minority Race/ethnic Group's Coefficients applied to White Group's Characteristics										
Less than High School Graduate			0.573	0.330	0.413	0.252	0.393	0.260	0.455	0.269
High School Graduate			0.333	0.205	0.258	0.170	0.274	0.187	0.239	0.168
Some College			0.174	0.131	0.144	0.117	0.163	0.127	0.130	0.121
Bachelors degree or higher			0.041	0.038	0.048	0.054	0.076	0.080	0.028	0.044
III. Overall Poverty as the product of education distribution (I) for Whites * education-specific proportions (b) for the Minority-group coefficients applied to the White group partner and household characteristics										
Odds Ratio, birth:no birth			0.203	0.151	0.164	0.131	0.182	0.148	0.150	0.131
Ratio of probabilities, birth:no birth			2.00		1.72		1.77		1.55	
			1.35		1.25		1.23		1.15	

IV. Overall Poverty when additionally applying White coefficients to White group's education distribution, from (I) * (a) for Whites

	0.132	0.087	0.132	0.087	0.132	0.087	0.132	0.087
Odds Ratio, birth:no birth	1.91		1.91		1.91		1.91	
Ratio of probabilities, birth:no birth	1.52		1.52		1.52		1.52	

Component Contributions to the White-Minority Group Poverty Difference

I - II	0.092	0.050	0.100	0.045	0.110	0.069	0.082	0.046
% of I-IV	37.2	34.2	63.7	45.3	59.9	55.1	63.7	59.3
II - III	0.083	0.032	0.025	0.010	0.023	-0.004	0.028	-0.013
% of I-IV	33.7	21.8	15.9	10.2	12.7	-3.5	21.9	-16.6
III - IV	0.072	0.064	0.032	0.044	0.050	0.061	0.018	0.044
% of I-IV	29.1	44.0	20.4	44.5	27.4	48.4	14.4	57.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Notes: a. Poverty is defined using at the household level, including both related and unrelated household members

Source: ACS 2005-2011 and 2013-15