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Parental Educational Expectations by Race/Ethnicity and Socioeconomic Status

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This paper is part of the Assets and Education Research Symposium, sponsored by the University of Kansas School of Social Welfare and the Center for Social Development at the George Warren Brown School of Social Work, Washington University in St. Louis

Subsequent publication: Kim, Y., Sherraden, M., & Clancy, M. (2013). Do mothers' educational expectations differ by race and ethnicity, or socioeconomic status? *Economics of Education Review*, 33, 82–94. doi:10.1016/j.econedurev.2012.09.007

2012

CSD Working Papers
No. 12-10

Campus Box 1196 One Brookings Drive St. Louis, MO 63130-9906 • (314) 935.7433 • csd.wustl.edu



Washington University in St. Louis

Acknowledgements

This publication is part of the Assets and Education Research Symposium held at the University of Kansas on March 28 and 29, 2012. The symposium is co-organized by the School of Social Welfare at the University of Kansas and the Center for Social Development at Washington University in St. Louis. Other supporters are CFED, New America Foundation, and Office of the Provost at the University of Kansas.

SEED for Oklahoma Kids (SEED OK) is supported by the Ford Foundation, Charles Stewart Mott Foundation, and Lumina Foundation for Education. Authors value our partnership with the State of Oklahoma: Ken Miller, State Treasurer; Scott Meacham, former State Treasurer; Tim Allen, Deputy Treasurer for Policy and Administration; James Wilbanks, former Director of Revenue and Fiscal Policy; Kelly Baker, Derek Pate, and Sue Mallonee, Oklahoma State Department of Health; Tony Mastin, Oklahoma Tax Commission Administrator; and James Conway, Program Administrator for Information Services, Family Support Services Division, Oklahoma Department of Human Services. Authors are appreciative of the contributions of staff at RTI International, especially those of Ellen Marks, Bryan Rhodes, and Jun Liu. We extend many thanks to colleagues at the Center for Social Development: Yunju Nam, Nora Wikoff, and Bob Zager for data management, Julia Stevens and Carrie Freeman for editing assistance, and Kristen Wagner for literature search. We also thank Cynthia George at Virginia Commonwealth University for her research assistance.

Parental Educational Expectations by Race/Ethnicity and Socioeconomic Status

Research has linked parents' educational expectations to children's educational attainment, but findings regarding differences in educational expectations by race/ethnicity have been inconsistent. In addition, existing studies have focused on school-age children and their parents. In this study, we examine educational expectations in mothers of newborn children using a state representative sample. A series of logistic regressions are conducted for the full sample (N=2,572) and for individual racial groups to investigate parental educational expectations by race and Hispanic origin. The study finds that non-Hispanic Whites hold higher educational expectations for their children compared to African Americans, American Indians, and Hispanics. However, these differences by race/ethnicity disappear when demographic and socioeconomic measures are controlled. Of economic measures, financial assets and health insurance coverage are significantly associated with parental educational expectations. Implications for research and policy are discussed.

Key words: *educational expectations, educational attainment, race and ethnic variation, child development accounts*

Introduction

Education is a significant channel to socio-economic success. Postsecondary college education, in particular, is believed to promote upward mobility in society. Disparities in educational attainment across socioeconomic groups, however, remain, and racial/ethnic gaps in educational outcomes have been consistently reported. According to recent data from the Census Bureau (Crissey, 2011), non-Hispanic Whites and Asians have higher educational attainment than African Americans and Hispanics. Nativity may also influence educational outcomes. On average, a larger share of US-born adults hold a Bachelor's degree than foreign-born adults, but a larger share of foreign-born adults holds an advanced degree than their native counterparts. Across all groups by race/ethnicity and nativity status, foreign-born Hispanics show the lowest educational attainment level.

While a variety of factors account for educational attainment, there is considerable agreement among scholars that parents are a substantial influence on children's development and education. Parents' monetary resources and time investment play critical roles in supporting and planning for their children's education (Leibowitz, 1974; Oliver & Shapiro, 1995). In addition to economic investment, parental contributions to educational attainment also include parental involvement in a wide range of activities, frequency and quality of interactions between parent and children, and socialization to particular career and/or educational paths (Furstenberg Jr. & Hughes, 1995; Kan & Tsai, 2005; Mayer, 1997; Orr, 2003; Totsika & Sylva, 2004).

Parents' educational expectations stand out among these influences, because they appear to have a significant impact on children's educational expectations and achievement. Although there is a large body of research on parents' educational expectations, to our best knowledge no study has examined

these expectations for an infant child, or determined what explains racial/ethnic differences in parental expectations at the very early stages of a child's development. Instead, existing studies of expectations and race/ethnicity have focused on parents of school-age children. This study addresses these gaps by examining the educational expectations of parents of newborn children by race and Hispanic origin once socioeconomic status is taken into account.

Background and Literature

Parents transmit their values and preferences to children, and in turn, children tend to learn and adopt their parents' behaviors, attitudes, and beliefs, especially regarding educational and occupational success (Kerckhoff, 1989; Smith, 1982). In the socialization process, parents define what is desirable and act as role models, whether implicitly or explicitly (Cohen, 1987). Accordingly, parents' educational expectations contribute to shaping children's educational expectations, which in turn affect children's academic outcomes. Numerous studies have found that educational expectations have a direct or mediating impact on school performance and college education (e.g. Cheng & Starks, 2002; Cowan, 2011; Kim & Sherraden, 2011; Zhan & Sherraden, 2003). The impact is likely to be larger if there is an agreement in expectations between parents and children (Hao & Bonstead-Bruns, 1998; Hossler & Stage, 1992; Kao & Tienda, 1998).

Research has posited several key determinants to explain educational expectations. The status-attainment model suggests parents' socioeconomic status, measured by parents' income, education level, and occupation, exerts strong influences on a child's educational expectations and later educational attainment (Alexander & Eckland, 1975; Chevalier, Gibbons, Thorpe, Snell, & Hoskins, 2009; Kao & Tienda, 1998; Qian & Blair, 1999; Sewell & Shah, 1968). According to this model, advantaged socioeconomic status promotes higher educational expectations of parents while providing a favorable home environment for the child's cognitive development and better planning for the child's higher education over time. Previous studies have documented that parents with higher income are more likely to have higher expectations for their child's education by allocating their income for various educational activities and participating in school programs (Hao & Bonstead-Bruns, 1998; Kao & Tienda, 1998). Building on the traditional link between income and expectations, more recent studies have proposed that parents' assets are important in forming parents' educational expectations (Williams-Shanks, Kim, Loke, & Destin, 2010). This emerging body of research finds that financial assets, home ownership, and total net worth consistently show a positive association with higher expectations for a child's educational attainment (Kim & Sherraden, 2011; Williams & Mesmin, 2009; Zhan, 2006; Zhan & Sherraden, 2011). When assets are controlled for in these studies, the significant effect of income on educational expectations tends to decrease or disappear, suggesting that parental assets may have even stronger effects on expectations than income.

Another important predictor of educational expectations is parents' education level. Parents with more years of education generally have better knowledge of how to motivate and develop their children to attain higher levels of education (Lareau, 1987; Serpell, Sonnenschein, Baker, & Ganapathy, 2002; Wigfield & Eccles, 2002). Furthermore, even when income is not a significant predictor, parents' education level is a significant contributor in explaining educational expectations (Hossler & Stage, 1992).

An additional predictor of educational expectations may be race and Hispanic origin. Non-Hispanic Whites and Asians generally show a higher level of educational expectations for their children compared to other minority groups, with Hispanics holding the lowest expectations (Beutel & Anderson, 2008; Goyette & Xie, 1999; Kao & Tienda, 1998). For the most part, variation by race and Hispanic origin is correspondingly observed in significant others (e.g. teachers, relatives, and peers) as well as parents and children (Cheng & Starks, 2002). Although past research has generally agreed on the status-attainment perspective in understanding educational expectations, different educational expectations by race and Hispanic origin raise the question of whether the status-attainment framework can be equally applied to all groups. Even with key socioeconomic factors taken into account, there may be a distinct pattern in educational expectations by race and Hispanic origin (Qian & Blair, 1999).

Alternative explanations suggest that structural barriers to opportunities for minorities and cultural beliefs/values regarding education (Kao & Tienda, 1998; Gibson & Ogbu, 1991) may play a role. Some minority groups may have a pessimistic view that education will not guarantee economic success and upward mobility because of discrimination and limited access to opportunity. In contrast, other minority groups may believe that education is a primary tool to overcome disadvantaged status and advance to economic and occupational success. The former perspective seems to explain lower expectations of African Americans and Hispanics in part, compared to non-Hispanic Whites, while the latter supports strong orientations to academic achievement by Asians.

However, findings from other studies challenge these conclusions. Studies have reported, for example, that parents of minority groups have higher educational expectations than those of non-Hispanic Whites. In many studies, African American parents hold higher educational expectations than those of non-Hispanic Whites, and African American children are more likely to have higher educational expectations even if they have demonstrated poor academic ability (Beutel & Anderson, 2008; Cheng & Starks, 2002; Garrison, 1982; Hauser & Anderson, 1991; Hossler & Stage, 1992; Mickelson, 1990). Asians are often found to surpass non-Hispanic Whites in educational expectations and performance (Sue & Okazaki, 1990).

Another possible explanation for variations in educational expectations across race and Hispanic origin may be immigration-related characteristics, such as nativity status and primary language spoken (Goyette & Xie, 1999; Hao & Bonstead-Bruns, 1998; Kao & Tienda, 1998; Wojtkiewicz, 1995), and/or different reasons for migration (Gibson & Ogbu, 1991). Those who migrated voluntarily to the United States for better jobs and opportunities could have strong motivation to successfully support the next generation in higher achievement. Those who migrated involuntarily or are subject to various types of institutional oppression in the US, such as refugees, illegal immigrants, or American Indians, might experience more serious discrimination in institutional levels, which may result in skeptical expectations about education.

The mechanism by which educational expectations are formed and maintained is also complex and affects how differences in expectations in race are interpreted. On the one hand, educational expectations indicate one's rational assessment of what is expected to be achieved in educational outcomes on the basis of available resources, socioeconomic background, or/and children's academic ability. On the other hand, educational expectations also indicate a psychological disposition toward preferred educational outcomes. The cost of education and lack of adequate

resources to meet these expenses, for example, may explain a low-income family's low educational expectations. Or, for some racial/ethnic groups, it could be that a cultural tendency toward fatalism or a cultural value system that prioritizes caring for family over economic and occupational achievement may preclude holding high educational expectations over time (Gibson & Ogbu, 1991). The inconsistent pattern of low socioeconomic status/achievement and high expectations that has been documented, particularly among African Americans (Ainsworth-Darnell & Downey, 1998; MacLeod, 1987; Ogbu, 1983), seems to derive from desired rather than predicted educational expectations.

An overview of the literature on this subject indicates that variations in educational expectations by race and Hispanic origin are not easy to understand. Variations may be attributed to disparities in socioeconomic status, gaps in academic performance, different cultural perspectives on education, or different ways of planning for a child's future success. Given the complexity of the subject and the gaps in the existing literature, this study raises two main questions: (1) Do parental educational expectations vary by race and Hispanic origin when socioeconomic status is taken into account?; (2) What factors explain parental educational expectations at the very early stages of a child's development?

For this study, a statewide representative sample of parents with newborn children is used because very little is known about parental educational expectations at the early stages of a child's development. We believe parental educational expectations measured shortly after the child's birth will provide a better understanding of how parental expectations are formed and what key determinants exist for parental educational expectations during early childhood.

We also pay attention to racial and ethnic differences in parental expectations for education. Much of the existing research on racial minorities and parental expectations has focused on African Americans and non-Hispanic Whites, with new research emerging on Hispanics and Asians. American Indians are included in our analyses, which will broaden knowledge of minority parents' educational expectations. In addition to assets, we include other economic measures, because different types of financial resources might contribute differently to shaping parental educational expectations.

Method

Data and sample

This study employs data collected for SEED for Oklahoma Kids (SEED OK), a large-scale experiment designed to test universal Child Development Accounts across the state. The SEED OK study sample was randomly drawn from birth records provided by the Oklahoma State Department of Health for all children born in April-June or August-October in 2007. In addition to this representative sampling frame, SEED OK oversampled three minority groups (African Americans, American Indians, and Hispanics) to obtain sufficient statistical power for separate analyses by race/ethnicity. Out of 7,115 children identified as eligible for the SEED OK study, primary caregivers (mostly mothers) of 2,704 children agreed to participate and completed the baseline

survey by telephone between fall 2007 and spring 2008.¹ This study uses data from the birth records and the baseline survey.

This study uses comprehensive information about SEED OK children and their families. The birth records contain basic demographic and health data on children and parents reported shortly after the child's birth. The SEED OK baseline survey data detail information on demographics, socioeconomic status, and family characteristics before the SEED OK study participants were assigned to treatment and control groups, when the child was on average about five months old.

Of 2,704 baseline study participants, we exclude five caregivers who are not parents of the SEED OK children because the focus of this study is parental expectations for child educational attainment. Also, we do not include those (n=102) who have missing data on variables used in analyses. However, study participants with missing information on family income and financial assets are included in order to use a separate category for those with a missing value in the analyses. We exclude Asians (n=25) from the main analyses because the very small number of participants in this group may not be representative of Asians in general. The full sample for this study consists of 2,572 caregivers of SEED OK children.²

Measures

The dependent variable of this study is *parental educational expectations*, measured by a baseline survey question asking “How far in school do you think that [your child] will go?” Possible responses included: 1=won't finish high school, 2=will graduate from high school, 3=will go to vocational, trade, or business school, 4=will go to college, or 5=will go to graduate school. The first three categories are recoded as 0 and the last two categories as 1, in order to create a dichotomized indicator of parental expectations for the child's college education.

The primary independent variable is child's *race and Hispanic origin*. The measure was created using the mother's information from the birth record data, following the Vital Statistics convention used by the National Center for Health Statistics³ (Marks, Rhodes, & Scheffler, 2008). Children are identified as Hispanic if the birth records indicate the birth mother has Hispanic origin. If the birth mother is not identified as Hispanic, children are categorized as non-Hispanic Whites, non-Hispanic African-Americans, non-Hispanic American-Indians, or non-Hispanic Asians, according to the mother's race. In the logistic regression analyses, each category of race and Hispanic origin is dummy-coded, with non-Hispanic Whites used as a reference group.

Several variables of child and parental characteristics are included in the analyses to take into account study participant, child, and family characteristics. *Child's gender* is a dichotomous variable with male coded as 1 and female as 0. *Parents' education* is a categorical variable measured by the highest completed education level of both parents: “less than high school,” “high school graduate,”

¹ More information and discussion about SEED OK study participation is found in Marks, Rhodes, & Scheffler (2008), Nam, Kim, Clancy, Sherraden, & Zager (forthcoming), and Zager, Kim, Nam, Clancy, & Sherraden (2010).

² With the exception of one participant, the entire sample consists of mothers.

³ According to the NCHS Vital Statistics protocol, father's information on race and Hispanic origin is used only when mother's information is missing. Because there is no missing information for the mother, all children of the SEED OK study participants are identified as the same race and Hispanic origin as the mother, using the birth record data.

or “Bachelor’s degree or more.” In the regression, the lowest educational level, “less than high school,” is employed as a reference group. *Marital status* is a dummy variable: 1=“currently married,” 0=otherwise. Mother’s age is a categorical variable with three groups: “younger than 23,” “24 to 30 year-old,” or “older than 30”. The youngest age category is used as a reference group in regression analyses. In addition, we include a continuous measure for the number of children in the household, a dummy variable for nativity status indicating whether the study participant is US-born (=1) or foreign-born (=0), and a dummy variable indicating whether the primary language spoken at home is English (=1) or other (=0).

Diverse variables measuring economic resources are employed: income-poverty ratio, public assistance receipt, overdue bills, banked status, home ownership, financial assets, health insurance coverage, and credit card ownership. The *income-poverty ratio* is a categorical measure indicating household’s income poverty status based on total household income before taxes for the past year and the 2008 federal poverty guidelines.⁴ We categorize the study participants into four groups: low-income (below 200% of the federal poverty guideline), middle-income (200% to below 400%), high-income (at or above 400%), and those with missing data. In the regression analyses, the highest income group is used as the reference group. *Public assistance* is a dichotomized measure indicating whether a household received means-tested public assistance, such as TANF, SSI/SSDI, and SNAP during the past year. A dummy variable of *overdue bills* measures experience of material hardship by asking whether a household has any money owed on overdue bills. *Health insurance* is included as one of the indicators of economic resources because it may give an indication of available monetary resources and financial preparation for health care costs. This dummy measure indicates whether a study participant is currently covered by health insurance, including coverage from an employer, another provider, or government programs such as Medicaid. The study also includes a binary variable for credit card ownership, where those who have a major credit card are coded as yes (=1) and no (=0) otherwise.

In addition, asset measures are included in the analyses. *Banked status* is a dummy variable indicating whether a household has a checking and/or a savings account (1=either or both, 0=none). *Homeownership* indicates whether a household possesses its own home (=1) or not (=0). A variable of *financial assets* is a categorical measure indicating whether a household has the following types of assets: certificates of deposit (CD), treasury bills, or corporate bonds; savings bonds; retirement accounts; other stocks or mutual funds; and any other types of savings. Study participants are categorized into three groups: those whose household has one or more forms of these financial assets; those whose household does not have any of these assets; and those with missing information regarding any of the financial assets. The first group (those with financial assets) is used as the reference group in the regression analyses.

Data on child gender and race/ethnicity come from birth records, and the other information are from the baseline survey. All information is measured when the SEED OK child was younger than 1 year of age.

⁴ <http://aspe.hhs.gov/poverty/08poverty.shtml>

Analytical strategy

We conduct descriptive, bivariate, and logistic regression analyses to examine differences in parental educational expectations by race and Hispanic origin. All analyses employ weighted data to adjust for oversampling of minority racial/ethnic groups and non-response bias (Marks et al., 2008). First, descriptive statistics are examined to understand sample characteristics for the full sample and by each race and Hispanic origin. Second, we run bivariate analyses to compare parental educational expectations and various sample characteristics by race and Hispanic origin.

Third, logistic regressions (Model 1 to Model 4) for the full sample (N=2,572) are conducted to examine parental educational expectations overall while controlling for other factors. Model 1 is a baseline analysis model including race and Hispanic origin only, without any controls. Model 2 includes basic characteristics of the study participant, child, and family in the baseline model, including child's gender, parents' education, marital status, mother's age, the number of children in the household, mother's nativity status, and primary language spoken at home. Next, Model 3 adds the income-poverty ratio into Model 2. Finally, Model 4 adds additional economic measures, including public assistance receipt, overdue bills, banked status, home ownership, financial assets, caregiver's health insurance coverage, and credit card ownership.

We also conduct supplementary analyses to check robustness of our main findings. First, the same set of logistic regression analyses is run after including the small number of Asians (n=25). Second, we use a continuous measure of the mother's age and a variable of age squared, instead of the categorical measure. Third, we use a categorical measure for the number of children in the household instead of the continuous measure: one child (reference group), two children, and three or more children. Fourth, we replace the variable of parents' education with a variable indicating mother's highest education.

Results

Descriptive and bivariate findings

Table 1 displays descriptive statistics and bivariate analyses results for all of the variables by race and Hispanic origin. Non-Hispanic Whites comprise 66.23% of the full analysis sample, African Americans 8.98%, American Indians 11.55%, and Hispanics 11.92%. In the full sample, over 90% of study participants expect their child will go to college. While parents' expectations for college education are generally high across all groups, non-Hispanic Whites (95.01%) have a significantly higher level of expectations compared to African Americans (89.96%), American Indians (89.17%), and Hispanics (85.29%) ($\chi^2=47.85$, $p<.001$).

Table 1. Sample Characteristics: Full sample and by Race/Ethnicity (Weighted)

	Full Sample	Whites	African Americans	American Indians	Hispanic
Educational Expectations (%)***					
Will not go to college	7.31	4.99	10.04	10.83	14.71
Will go to college	92.69	95.01	89.96	89.17	85.29
Child's Gender (%)					
Female	46.90	47.52	46.73	45.69	44.75
Male	53.10	52.48	53.27	54.31	55.25
Parents' Education (%)***					
Less than high school	17.55	11.26	20.49	22.75	45.21
High school graduate	58.64	58.30	67.50	66.43	46.28
Bachelor's degree or more	23.82	30.44	12.01	10.82	8.50
Marital Status (%)***					
Married	62.05	69.73	24.33	54.84	54.75
Unmarried	37.95	30.27	75.67	45.16	45.25
Mother's Age (Mean, year)	26.02	26.42	25.11	24.80	25.67
Younger than 23	31.61	29.12	34.99	39.94	34.82
23-30	46.56	47.29	48.89	45.20	42.08
Older than 30	21.83	23.60	16.12	14.87	23.10
Number of Children (Mean)	2.10	2.01	2.25	2.15	2.41
Mother's Nativity Status (%)***					
US-born	92.13	99.05	96.28	99.46	43.49
Foreign-born	7.87	0.95	3.72	0.54	56.51
Primary Language at Home (%)***					
English	92.28	99.63	98.82	98.94	40.12
Others	7.72	0.37	1.18	1.06	59.88
Income/Poverty Ratio ^a (%)***					
Low-income	66.96	59.73	84.14	78.49	83.00
Middle-income	17.91	21.06	11.77	15.35	7.52
High-income	12.43	17.11	1.98	3.87	2.63
Missing	2.70	2.10	2.10	2.29	6.85
Public Assistance ^b : Yes (%)***	40.90	35.10	72.67	53.79	36.73
Overdue Bills: Yes (%)***	29.95	28.90	40.40	33.19	24.72
Bank Account: Yes (%)***	79.54	85.71	66.91	72.59	61.54
Home Ownership (%)***					
Own	42.18	50.05	17.49	31.60	27.35
Rent or other	57.82	49.95	82.51	68.40	72.65
Financial Assets (%)***					
Yes	46.80	56.99	28.00	33.81	16.88
No	51.07	41.30	70.02	62.59	79.89
Missing	2.14	1.71	1.98	3.60	3.23
Mother's Health Insurance: Yes (%)***	60.36	66.51	63.69	53.20	30.62
Credit Card: Yes (%)***	41.79	48.69	25.13	28.90	28.48
Unweighted N	2,572	1,197	453	508	414

Source: SEED OK baseline survey and 2007 Oklahoma state birth records

Notes: ^a "Low-income" = below 200% of the federal poverty guideline. "Middle-income" = 200% to below 400% of poverty. "High-income" = at or above 400% of poverty. ^b Public assistance includes TANF, SSI/SSDI, and SNAP.

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Demographic and socioeconomic measures show clear disparities by race and Hispanic origin. Parents' educational level, for example, statistically differs by race and Hispanic origin ($\chi^2=291.55$, $p<.001$). The proportion of college graduates with a Bachelor's degree is much higher for non-Hispanic Whites (30.44%) than for the other minority groups (around 10%). In particular, about 45% of Hispanics did not complete high school. Although the majority of the full sample (62.05%) and most subgroups are married, the share of married participants is significantly less for African Americans ($\chi^2=197.93$, $p<.001$), about 24%. While the full sample is around 26 years old, American Indians are slightly younger at around 25, relative to other groups ($F=10.33$, $p<.001$). On average, study participants have two children in the household but there is variation by racial and ethnic group ($F=13.62$, $p<.001$): Hispanics, African Americans, and American Indians tend to have more children. There is also a statistical difference in nativity status ($\chi^2=1154.10$, $p<.001$). Whereas almost every non-Hispanic White (99.05%) and American Indian (99.46%) report that they are US-born, a much higher percentage of Hispanics (56.51%) reports that they are foreign-born. Similar to nativity status, the majority of the full sample primarily speaks English at home, but Hispanics are significantly different ($\chi^2=1348.08$, $p<.001$). About 40% of Hispanic participants report that they do not speak English at home.

The income-poverty ratio significantly differs by racial and ethnic group ($\chi^2=190.97$, $p<.001$). Significantly higher percentages of African Americans (84%), American Indians (78%), and Hispanics (83%) live below the 200% federal poverty line, compared to non-Hispanic Whites (59.73%). Likewise, a larger proportion of African Americans (72.6%) and American Indians (53.79%) report that they received public assistance benefits. However, a much smaller percentage of Hispanics (36.73%) report receiving public assistance, although over 80% live below the 200% poverty line ($\chi^2=144.35$, $p<.001$).

Other measures of economic resources present a similar pattern, with non-Hispanic Whites generally holding more advantaged economic status. More than 80% of non-Hispanic Whites have either a checking or savings account ($\chi^2=133.79$, $p<.001$). Over 50% of non-Hispanic Whites are home-owners ($\chi^2=143.91$, $p<.001$). Almost 60% of each group has financial assets ($\chi^2=239.25$, $p<.001$). Health insurance coverage is higher for non-Hispanic Whites (66.51%) and African Americans (63.69%) and lowest for Hispanics (30.62%) ($\chi^2=149.40$, $p<.001$).

Logistic regression models

Table 2 shows results from the four main logistic regression analyses for the full sample ($N=2,572$). Model 1 takes into account race and Hispanic origin only in estimating gaps in parental educational expectations. The baseline analysis model indicates that non-Hispanic Whites have a significantly higher level of expectations for their child's college education than African Americans (odds ratio=0.47, SE=0.24), American Indians (odds ratio=0.43, SE=0.22), and Hispanics (odds ratio=0.30, SE=0.19).

PARENTAL EDUCATIONAL EXPECTATIONS BY RACE AND HISPANIC ORIGIN:
EVIDENCE FROM THE SEED OK EXPERIMENT

Table 2. Logistic Regression Predicting Educational Expectations: Full sample (Weighted)

	Model 1	Model 2	Model 3	Model 4
Child's Race/Ethnicity (Non-Hispanic White)				
African-American	0.47 ** (0.24)	0.61 [‡] (0.26)	0.65 (0.26)	0.65 (0.26)
American-Indian	0.43*** (0.22)	0.58* (0.22)	0.60* (0.22)	0.66 [‡] (0.22)
Hispanic	0.30*** (0.19)	0.70 (0.33)	0.74 (0.33)	0.80 (0.34)
Child's Gender: Male		0.89 (0.16)	0.88 (0.16)	0.89 (0.16)
Parents' Education (Less than high school)				
High school graduate		1.68** (0.18)	1.57* (0.18)	1.52* (0.19)
Bachelor's degree or more		9.08*** (0.43)	4.87*** (0.45)	3.35** (0.46)
Marital status: Married		1.09 (0.17)	1.00 (0.17)	0.87 (0.18)
Mother's Age (Younger than 23)				
23-30		1.60* (0.18)	1.48* (0.18)	1.49* (0.19)
Older than 30		0.96 (0.24)	0.82 (0.25)	0.76 (0.25)
Number of Children		0.95 (0.07)	0.99 (0.07)	1.02 (0.08)
Mother's Nativity Status: US-born		0.65 (0.39)	0.61 (0.40)	0.55 (0.42)
Primary Language at Home: English		2.59* (0.42)	2.63* (0.43)	2.45* (0.44)
Income/Poverty Ratio ^a (High-income)				
Low-income			0.22* (0.64)	0.35 (0.66)
Middle-income			0.70 (0.70)	0.78 (0.70)
Missing			0.23 [‡] (0.75)	0.41 (0.78)
Public Assistance ^b				0.83 (0.19)
Overdue Bills				0.99 (0.17)
Bank Account				0.98 (0.19)
Home Owner				0.82 (0.21)
Financial Assets (Yes)				
No				0.52** (0.23)
Missing				0.32** (0.44)
Mother's Health Insurance				1.55* (0.17)
Credit Card Ownership				1.48 [‡] (0.21)
Unweighted N	2,572			

Notes: For each variable, numbers indicate odds ratio and standard errors are in parentheses.

a "Low-income" = below 200% of the federal poverty guideline. "Middle-income" = 200% to below 400% of poverty.

"High-income" = at or above 400% of poverty.

b Public assistance includes TANF, SSI/SSDI, and SNAP.

* [‡] p < 0.1, p < 0.05; ** p < 0.01; *** p < 0.001

Model 2 examines variations in parental educational expectations, after controlling for child's gender, education, marital status, mother's age, the number of children in the household, and nativity status. Consistent with Model 1, American Indians (odds ratio=0.58, SE=0.22) have significantly lower educational expectations compared to non-Hispanic Whites. However, in contrast to Model 1, African Americans and Hispanics no longer differ statistically from non-Hispanic Whites at the 0.05 significance level, holding key demographic and social characteristics constant. In this model, level of educational expectations for the child's future college education is significantly explained by parents' education. High school graduates (odds ratio=1.68, SE=0.18) and those with a college education (odds ratio=9.08, SE=0.43) are more likely to expect their child to attend college than those who did not complete high school. Compared to young mothers, mothers in their mid and late 20s tend to have significantly higher expectations for the child's college education (odds ratio=1.60, SE=0.18). However, older mothers over 30 do not significantly differ from young mothers. This suggests a non-linear relationship such that parental educational expectations are likely to increase as the mother becomes older, but this tendency may decline and even reverse after a certain age. Also, those whose primary language is English at home have much higher expectations than the counterpart, controlling for other factors (odds ratio=2.59, SE=0.42).

Model 3 adds one financial measure, the income-poverty ratio, to investigate differences in educational expectations while controlling for economic status. Even in this model, non-Hispanic Whites show significantly higher expectations for their child's college education than American Indians (odds ratio=0.60, SE=0.22). Consistent with Model 2, parents' level of education, mother's age, and primary language at home also remain significantly associated with a higher level of educational expectations. As anticipated, family income status is a significant predictor. Compared to those living at or above the 400% poverty line, lower-income families living below the 200% poverty line (odds ratio=0.22, SE=0.64) are approximately 78% less likely to expect their child to go to college.

In addition to income status, Model 4 takes various economic resources into account by including public assistance receipt, overdue bills, banked status, home ownership, financial assets, and credit card ownership. Interestingly, the difference in parental education expectations between American Indians and non-Hispanic Whites is not statistically significant at the 0.05 level when other factors are held constant. Parents' level of education—both high school (odds ratio 1.52, SE=0.19) and college (odds ratio=3.35, SE=0.4446)—remains a significant predictor. Similarly, mothers age and primary language spoken at home are significantly associated with parental educational expectations. The income-poverty ratio is no longer significant after assets and hardship measures are included. Among economic measures, financial assets and health insurance coverage are significantly associated with parental educational expectations. Those without any financial assets are 48% less likely to expect their child to go to college in the future than those with financial assets (odds ratio=0.52, SE=0.23). Likewise, those with missing information on financial assets report significantly lower expectations (odds ratio=0.32, SE=0.44) than the reference group. Also, those with health insurance coverage are more likely to expect their child to pursue a college education (odds ratio=1.55, SE=0.17) than those without coverage.

Supplementary analyses

The robustness of the main analyses has been checked with additional analyses.⁵ Asians do not significantly differ from non-Hispanic Whites in parental educational expectations, holding other characteristics constant. The inclusion of Asians does not change the major findings. Other sensitivity tests also present findings that are consistent with our main results.

Discussion

Descriptive findings that educational expectations of parents are generally high but significantly differ across race/ethnicity are consistent with previous studies. Non-Hispanic Whites have the highest expectations. Hispanics, American Indians, and African Americans show lower expectations than the average. According to recent statistics from the U.S. Department of Education (DeVoe & DeVoe, 2008), Hispanic and American Indian high school students report the lowest level of expectations or uncertain expectations about attaining a college degree. Therefore, it may be possible that differences in educational expectations by race and Hispanic origin are transmitted from parents to children via socioeconomic status and, through this mechanism, remain persistent over time.

However, our study finds that the racial and ethnic disparities are greatly reduced and eventually disappear when other factors are controlled. Significant differences between non-Hispanic Whites compared to African Americans and Hispanics disappear after controlling for key demographic and socioeconomic factors. Although expectations of American Indians remain significantly lower than those of non-Hispanic Whites even when controlling for the income-poverty ratio (Model 3), incorporation of additional measures of economic resources (Model 4) eliminates this difference. Overall, these results indicate that racial and ethnic variation in educational expectations can be attributed to inequality in socioeconomic status. In other words, given comparable resources, parents are very likely to hold a similar high level of educational expectations for their child's college education. Another notable finding of this study is the significant effect of financial assets on parental educational expectations. Compared to parents with the highest incomes, the poorest parents hold significantly lower expectations. However, as assets and other resources are held constant, significant differences across income groups disappear, and at the same time a significant difference appears between parents who have financial assets and those who do not. This finding indicates that financial assets may be more important than income in influencing parental expectations and children's educational achievement.

Turning to other measures, parental education level, health insurance coverage, and mother's age are significant predictors of educational expectations in all analyses, as anticipated. More educated parents very likely have learned and experienced the critical roles of college education in social and financial success. Consequently, they would want to pass on their socioeconomic status to their children through educational investment. Health insurance coverage may be a proxy of parental economic resources, which increases the odds of parental preparedness for the child's future education. The finding that mother's age is a predictor of educational expectations implies that parental educational expectations tend to increase as parents age, but may decline after reaching a certain age.

⁵ Full results are available upon request.

Of note, the primary language spoken at home is significantly associated with educational expectations. Even though the strength of the association decreases as economic characteristics are considered, those speaking English at home show significantly higher expectations in all models. In addition, when the primary language indicator is added to Models 2 to 4, the disparity in parental educational expectations between Hispanics and non-Hispanic Whites becomes statistically insignificant. This signals that the difference in parental educational expectations by Hispanic origin is partially explained by home language, presumably reflecting a degree of cultural assimilation to the mainstream. Unlike the other racial/ethnic groups, a considerable proportion of Hispanics (59.88%) report that they speak Spanish (58.66%) or other language (1.22%) at home. The primary language spoken at home can be one of the indicators measuring degree of acculturation by racial/ethnic minorities (Stanton-Salazar & Dornbusch, 1995). A low level of assimilation to the mainstream culture may lead to limited knowledge of educational systems, school environments, financial investment, and other institutions, which would hinder parents from supporting and planning for their child's higher education.

We note also that the study has some limitations. First, the variable for race and ethnicity may not correctly reflect the child's race and ethnicity. The measure is created using birth-records according to the NCHS Vital Convention. As a result, the child's race and ethnicity are identical to the mother's, but the father's racial and ethnic characteristics are not reflected. This measurement method also means that there is no category for those who are of multiple races and/or ethnicities, although this population is rapidly growing in the US (Johnson & Lichter, 2010; Renn, 2004). Second, we were not able to include important predictors with respect to minority status. As the literature suggests, disparities across racial and ethnic minority status are very complex and can be explained by considering a variety of factors, including, for example, immigration status, length of stay in the US, immigration generation, English proficiency, and so on. Third, the sample may not be representative of parents of newborn children in the United States, although the sample is randomly drawn from birth records from the State of Oklahoma. Fourth, in addition to the main analyses using the full sample, separate subgroup analyses by race and Hispanic origin could provide valuable insights on the extent to which key determinants are associated with parental educational expectations. However, we were not able to perform these analyses due to limited variations in measures for some minority groups.

Conclusions

This study makes substantial contributions to existing knowledge. By using study participants who are mothers of newborn children, the study finds evidence that socioeconomic status plays a significant role in forming parental expectations, even near the time of the child's birth. The study also examines the role of race/Hispanic origin. American Indians, who have often been overlooked in other studies, are included in the sample, yielding a richer data set. Our study finds similar differences in educational expectations between non-Hispanic Whites, and American Indians, as with other racial and ethnic minorities. Results also indicate, as with other minority groups, that these differences disappear when economic measures are controlled.

What are the implications? When considering parental educational expectations, far less attention should be paid to race and greater attention should be paid to presence of financial assets. Findings support the assertion that asset accumulation matters, not only for providing economic resources

but also for enabling parents to plan ahead for their child's education. Proponents of Child Development Accounts (CDAs) have argued for institutional supports promoting asset holding and accumulation for long-term child development and education for households of all income levels, because existing asset-building strategies target primarily middle- and high-income households (Nam, Kim, Clancy, Sherraden, & Zager, forthcoming; Sherraden, 1991; Zager, Kim, Nam, Clancy, & Sherraden, 2010). CDAs are matched savings accounts that are given to all children at birth and are progressive, with subsidies provided to lower-income households. SEED OK is a policy experiment to test the idea of CDAs using a state-wide representative sample of newborn children. From the analyses based on birth record and SEED OK survey data, parental assets are confirmed as the most important predictor of educational expectations in the full sample and across racial and ethnic groups from a very early stage of childhood.

Parents' education expectations may change over time, for instance, by child's academic ability, changes in socioeconomic status, family-child relationship, and child's developmental stage. The SEED OK study is promising in that the experimental design randomly assigns the sample into treatment and control groups, and plans to follow the sample from birth through their school years, likely into their transition to young adulthood. The solid study design will make it possible to investigate racial and ethnic gaps in educational expectations over time, the relationship of expectations to educational achievement/attainment, and the relationship of parental expectations and parental investment of savings and time. Future research questions could include: Do CDA savings outcomes affect educational expectations, or vice versa? Do expectations lead to educational development and attainment, and are there variations across racial and ethnic groups in the associations? These research questions can be addressed in future data from SEED OK and can provide useful knowledge to researchers, policymakers, and parents.

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