Parental Marital Status and Children's Education in Developing Countries

Abstract: Research based on the United States and other developed countries suggests that children in intact, two-parent households typically have better educational outcomes than children in single-parent and step-family households. However, living with two biological parents does not have a consistently beneficial effect on children's secondary school enrollments across developing countries (Wilcox et al. 2009). While cultural differences between countries (e.g., degree of extended family involvement in schooling) may explain some of this inconsistency, this paper tests the hypothesis that marriage matters. More specifically, we test whether parental marital status affects secondary school enrollments both for children residing with both biological parents (cohabitation versus marriage) and for children residing with one biological parent (single versus married). We also determine whether incorporating marital status produces more consistent estimates of the effect of family structure across disparate developing country settings.

Universal primary education of children in the developing world is one of the eight goals selected by world leaders in 2000 under the aegis of the United Nations Millennium Development Initiative.[1] The focus on education embodied in the second Millennium Development Goal is but one sign that the international community now recognizes the importance of education for the economic, social, and physical well-being of children, their family members, and society at large.[2] The international community has made important strides in meeting this development goal, with primary school enrollment in the developing world up from 83 percent in 2000 to 89 percent in 2008.[3]

Nevertheless, important global strides that have been made in recent years to ensure that children in the developing world get the primary education they need have not been matched by a similarly successful effort to furnish them with a secondary education. One factor that could account for the considerable degree of variation in secondary school-age children's

[1] http://www.un.org/millenniumgoals/bkgd.shtml
[2] Claudia Buchmann and Emily Hannum. 2001. "Education and Stratification in Developing Countries." *Annual Review of Sociology* 27: 77-102; M. Anne Hill and Elizabeth M. King. 1993. "Women's Education in Developing Countries: An Overview," in Elizabeth King and M. Anne Hill (eds.), *Women's Education in Developing Countries: Barriers, Benefits, and Policies*. Baltimore: Johns Hopkins University Press.
[3] http://www.un.org/millenniumgoals/pdf/MDG_FS_2_EN.pdf

enrollment in school may be family structure. Indeed, recent research suggest that family structure varies widely across the developing world. For instance, only about 36 percent of children in South Africa live with both of their biological parents, whereas an estimated 91 percent of children in Egypt live with both of their biological parents.[4] These variations in family form may have important implications for the odds that children will be able to enroll and persist in school, if biological parents play a particularly important role in devoting financial, cultural, and social resources to their children.

This study builds on preliminary work on the effect of coresidence with biological parents as a determinant of enrollment in school among children of secondary school age.[5] It uses data from Colombia, Egypt, India, Kenya, Nigeria, and Peru—the same Demographic and Health Survey countries utilized in the Wilcox et al. study—and also extends the sample to other DHS countries with appropriate household-level data. We test whether having married biological parents in the household promotes schooling more consistently across countries than does simply having biological parents in the household. Among children living with one biological parent, we test whether their parent's marital status has a significant and consistent effect on secondary school enrollments across countries.

Our core sample is then the 86,727 children of secondary school age[6] as determined from the household files from the Demographic and Health Surveys in Colombia, Egypt, India, Kenya, Nigeria, and Peru. Enrollment in school is the dependent variable, with no distinction made between primary and secondary enrollments: thus children who are behind grade for age are still counted as having a positive outcome as long as they were still enrolled at survey. We also control for five sociodemographic factors: the head of the household's education, the household's wealth, region (rural or urban), the child's sex, and the child's age. These controls allow us to determine if any associations between family structure and children's schooling are robust even after controlling for sociodemographic factors that could confound or distort any links between family structure and education.

The key independent variables are the number of biological parents in the household and parental marital status. The Wilcox et al. study that found

[4] W. Bradford Wilcox, Laura Lippman, and Camille Whitney. 2009. *World Family Map Project Prototype*. Washington DC: Child Trends.

[5] W. Bradford Wilcox, Laura Lippman, Camille Whitney, and Alejandro Cid. 2009. "Making the Grade: Family Structure and Children's Educational Participation in Colombia, Egypt, India, Kenya, Nigeria, Peru & Uruguay." Paper presented at the International Union for the Scientific Study of Population Conference in Morrocco, 28 September.

[6] Secondary school age is 11-14 in Colombia, Egypt, and India and 12-14 in Kenya, Nigeria, and Peru. See UNESCO Institute for Statistics 2006. Global Education Digest 2006: Comparing Education Statistics Across the World.

inconsistent effects of family structure across the core sample simply compared having both biological parents, only one, and none. We instead construct more complicated categories by including parental marital status. If both biological parents are present in the household and they are both married, we assume they are married to each other. If only one biological parent is present in the household and is married to someone also in the household, we consider those children separately from children living with one unmarried parent.[7]

Ultimately, we compare secondary school enrollments of children in the following categories:

1) living with married biological parents

2) living with unmarried biological parents

3) living with one married biological parent

4) living with a single parent

5) living with no biological parents

There are, of course, other family structure variables that could usefully refine these categories, e.g., whether biological parents are still living, if grandparents are present in the household, but even this simple refinement may help clarify how family structure affects education in the developing world.

The Family's Role in Children's Schooling

In his seminal work on education, the late James Coleman detailed the ways, in general, that the economic, cultural, and social capital of the family plays a crucial role in shaping the arc of children's educational attainment in the United States.[8] Coleman's insights, which have been supported by research in much of the developed world, suggest that the economic, cultural, and social capital of the family is important in the following ways for children's educational achievement:

- Economic capital allows parents to buy books, school uniforms, hire tutors, pay school fees or tuition, and move to neighborhoods/regions with good schools.

[7] Despite many consistencies between DHS surveys because of core questionnaires, they do vary with respect to whether the marital status of all adults is included in the household questionnaire. Thus, our sample is limited to countries where this information is available.

[8] James Coleman et al. 1966. Equality of Educational Opportunity. Washington, D.C.: Government Printing Office; James Coleman. 1988. "Social Capital in the Creation of Human Capital." American Journal of Sociology 94 Supplement: S95-S120. James Coleman and John Johnstone. 1961. The Adolescent Society. New York: Free Press.

- Parents' cultural (or human) capital—that is, their skills, knowledge, and education—can be an important resource in guiding their children's education, in inspiring their children to make the most of their education, and in providing their children with the basic knowledge and cultural literacy they need to do well in school.

- A family's social capital—social networks constituted by family members that foster mutual aid, share information, and reinforce norms—can be crucial in monitoring, motivating, and encouraging children to become educated; moreover, family social capital can also allow children to access economic and cultural resources in their kinship networks.[9]

Coleman also argued that the structure of the family influences the likelihood that a child will have access to the economic, cultural, and social capital that maximizes his or her odds of educational success.[10] In Coleman's words:

> The physical absence of adults may be described as a structural deficiency in family social capital. The most prominent element of structural deficiency in modern families is the single-parent family. However, the nuclear family itself… can be seen as structurally deficient, lacking the social capital that comes with the presence of… grandparents or aunts and uncles in or near the household.[11]

Coleman's basic point was this: Children may be most likely to succeed educationally when they have easy access to many family members who can invest in them, such as an extended family, and may be most likely to fail when they have access to only one or no parent, as is the case when children live in a single-parent family or in an orphanage.[12]

The "Two Parents are Better than One" Hypothesis

The ideal way to test Coleman's theory would be to compare children living in intact, extended families with their two biological parents, as well as grandparents and/or other members of their kin, with children in other family arrangements. By Coleman's reckoning, children living with both of their biological parents in extended families would have the greatest access to the economic, cultural, and social resources of their kin. While some information on the presence of relatives of the household head is available from the DHS, a complete picture of the presence of extended family members for all family types is not available. In the future, we intend to investigate whether other adults contribute to educational outcomes. The current analysis compares the school attendance rates of children according to the number of biological parents and their marital status.

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[9] See, for example, G.F. Peaker. 1971. The Plowden Children Four Years Later. London: National Foundation for Educational Research in England Wales; Barbara Schneider and James Coleman. 1993. Parents, Children, and Primary Schools. Boulder, CO: Westview; Yossi Shavit and Hans-Peter Blossfield. 1993. Persistent Inequality: Changing Educational Attainment in Thirteen Countries. Boulder, CO: Westview.

[10] James Coleman. 1988. "Social Capital in the Creation of Human Capital." American Journal of Sociology 94 Supplement: S95-S120. See, in particular, pp. S109-S113.

[11] Ibid. p. S111.

[12] For a discussion of family structure and education in the developing world, see Buchmann and Hannum. 2001. Pp. 82-86.

In this section we focus on the ways in which children living with two biological parents might be advantaged. The social scientific literature from the developed world, especially the United States, suggests that children are more likely to excel in the educational arena when they live with their two biological parents.[13]

In particular, the literature on families in the developed world suggests four important advantages that two biological parents hold over a single- or lone-parent family:

- Two-parent families typically have access to more employment, income, savings, and kin-related economic resources than do single parent families.

- On average, two parents are able to devote more time, affection, and monitoring to their children than are single-parents.[14]

- Two parents can monitor one another's parenting, as well as relieve one another when they find that parenting is becoming difficult or wearisome. Consequently, the overall quality of parenting tends to be higher in two-parent families, compared with single-parent families.

- Two parents are typically more successful in involving both sets of a child's kin-based networks in providing social and emotional support to a child, compared with single-parent families.[15]

But is biology important? Do children in a step-family with one biological parent and one step-parent do as well as children in an intact, biological family? On average, in the developed world, children in step-families with one biological parent do not do as well in the educational arena as do children living in intact families with both of their two biological parents.[16]

There are at least three reasons this is the case. First, step-parents typically invest less time and money in their children than do biological parents, in part because the step-parent (and the child and biological parent as well) are less likely to see step-children as their own, and in part because they generally have not had an ongoing relationship with a child since birth. Second, on average, children are less likely to respond favorably to step-parents, compared with biological parents.

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[13] See, for example, Paul Amato. 2005. "The Impact of Family Formation Change on the Cognitive, Social, and Emotional Well-Being of the Next Generation. The Future of Children 15: 75-96; John F. Ermisch and Marco Francesconi. 2001. "Family Structure and Children's Achievements." Journal of Population Economics 14: 249-270; Sara McLanahan and Gary Sandefur. 1994. Growing Up With A Single Parent: What Hurts, What Helps. Cambridge: Harvard University Press; Kristin Moore, Susan M. Jekielek, and Carol Emig. 2002. Marriage from a Child's Perspective: How Does Family Structure Affect Children, and What Can We Do About It? Washington, DC: Child Trends Research Brief; Margaret Ely, Martin P.M. Richards, Michael E.J. Wadsworth, and B. Jane Elliott. 1999. "Secular Changes in the Association of Parental Divorce and Children's Educational Attainment – Evidence from Three British Birth Cohorts." Journal of Social Policy 28: 437–455.

[14] McLanahan and Sandefur. 1994; Nicholas Zill et al. 1993. "Long-Term Effects of Parental Divorce on Parent-Child Relationships, Ajdjustment, and Achievement in Young Adulthood." Journal of Family Psychology 7: 91-103.

[15] For discussions of differences in parenting between two-parent and single-parent families, see McLanahan and Sandefur. 1994; W. Bradford Wilcox et al. 2005. Why Marriage Matters: 26 conclusions from the Social Sciences. New York: Institute for American Values.

[16] Amato. 2005; McLanahan and Sandefur. 1994.

Step-parents can be perceived by children as interlopers, who interfere with their ability to maintain a good relationship with one or both of their biological parents. Furthermore, step-parents often do not have as clear a role, and the requisite authority, in children's lives as do biological parents. Finally, children living in a step-family are more likely to perceive that their step-parent is less invested in their lives than children living with their two biological parents (see above).[17] Third, step-parents are significantly more likely to be abusive or neglectful towards their children, compared with biological parents. This distinctive pattern of abuse/neglect is probably related to the fact that step-parents are less likely to have a longstanding relationship with their step-children, to have a clearly defined role in the family, and to have a strong identity as a parent of their step-children.[18] (Some research suggests that they are more likely to be reported as well.)

Less is known about whether the intact, biological two-parent family also confers advantages to children in the developing world. Further, little is known about how well cohabitation substitutes for marriage in producing good educational outcomes for children in two-parent families. Many of the reason enumerated above for why two are better than one do not depend on the relationship between the two. However, to the extent that cohabiting parents maintain separate resources, not everything that might have been available to the child actually is. Moreover, investment in the child as a long-run project may have less salience where the future of the relationship is less certain. This may be particularly true where lineage systems (matrilineal and patrilineal descent) dictate that the child essentially belongs to one side of the family.

The "Mother Knows Best" Hypothesis

It is also possible that family structure does not affect children's educational enrollment in the developing world in the same way that it does in the developed world. One possibility in particular is that children reared in single-parent homes, usually by their mothers, actually do better than children reared in homes with both of their biological parents. This is because there is evidence to suggest that mothers are more likely to devote economic and social capital to their children than are fathers, and that single mothers are freer to focus on their children than are mothers in two-parent households. If this is the case, than a mother's remarriage would actually be a detriment to a child, and treating all children with one biological parent the same would conceal important heterogeneity.

For instance, a number of studies in Sub-Saharan Africa have found that children are more likely to succeed in the educational arena if they are raised in female-headed households, compared with children raised in homes with their two biological parents.[19] In reflecting on their findings regarding female-headed households and children's school enrollment in Sub-Saharan Africa,

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[17] Andrew Cherlin. 2009. The Marriage-Go-Round. New York: Knopf; Elizabeth Marquardt. 2005. Between Two Worlds: The Inner Lives of Children of Divorce. New York: Crown.

[18] For a discussion of the distinctive dynamics of parenting in step-families, see Paul R. Amato. 1987. "Family Processes in One-Parent, Stepparent, and Intact Families; The Child's Point of View." Journal of Marriage and Family 49: 327-337; Anne Case, I-Fen Lin, and Sara McLanahan. 2001. "Educational Attainment of Siblings in Stepfamilies." Evolution and Human Behavior22: 269-289; Andrew Cherlin. 1978. "Remarriage as an Incomplete Institution." American Journal of Sociology 84: 634-650; Martin Daly and Margo Wilson. 1985. "Child Abuse and Other Risks of Not Living with Both Parents." Ethology and Sociobiology 6: 197-210.

[19] Fuller and Liang. 1999. Lloyd and Blanc. 1996.

Cynthia Lloyd and Ann Blanc argue that in many African societies "female household heads are more likely to invest resources, including time, money, and emotional support, in facilitating the education of children living in their household" than are male household heads.[20] This could give children an educational advantage in female-headed households.

The Parents Don't Matter Hypothesis

Another possibility is that neither the presence of biological parents nor their marital status matters for children's educational enrollment in the developing world. First, family structure may not matter much because other factors in the social environment matter more. Specifically, some research indicates that school quality is a much more important factor in predicting children's educational performance in the developing world than is family background. For instance, after studying this topic, Stephen Heyneman and William Loxley conclude that "school and teacher quality appear to be the predominant influence on student learning around the world; and the poorer the national setting in economic terms, the more powerful this school effect appears to be."[21]

A second reason that the presence of biological parents may not necessarily matter is that the extended family is so strong that kin networks—grandparents, aunts, uncles, and so forth—buffer against the disadvantages associated with single parenthood, orphanhood, poverty, or poor schools near one's biological parents.

Specifically, research indicates that in some developing countries the extended family is so strong that it offers a "safety net" that buffers against any potential ill effects of single parenthood, orphanhood, and poverty when it comes to children's education.[22] A number of studies of Asian countries suggest that children in single-parent families do as well or better than children in two-parent families because extended family members tend to reach out to single mothers and provide them with extra financial and social resources to make up for the loss of a father due to divorce or death.[23] Likewise, a number of studies in Africa indicate that children who are fostered to kin—either because they are orphans, because their biological parents are too poor, or because their kin have access to better schools than their biological parents—can do as well or better in school as children who reared by their biological parents.[24]

This study tests whether variation between cultural contexts in the effect of having biological parents in the household on secondary school enrollments remains after accounting for parental marital status.

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[20] Ibid, p. 288.

[21] Stephen P. Heneman and William A. Loxley. 1983. "The Effect of Primary-School Quality on Academic Achievement across Twenty-nine High- and Low-Income Countries." American Journal of Sociology 88: 1162-1194. p. 1184.

[22] Parfait M. Eloundou-Enyegue and David Shapiro. 2004. "Buffering Inequalities: The Safety Net of Extended Families in Cameroon." SAGA Working Paper. Ithaca, NY: Cornell University.

[23] See, for example, Hyunjoon Park. 2007. "Single Parenthood and Children's Reading Performance in Asia." Journal of Marriage and Family 69: 863-877; Suet-Ling Pong. 1996. "School Participation of Children from Single-Mother Families in Malaysia." Comparative Education Review 40: 231-249.

[24] R. Akresh. 2004. "Adjusting Household Structure: School Enrollment Impacts of Child Fostering in Burkina Faso." BREAD Working Paper 89; New Haven: Yale Economic Growth Center Working Paper No. 897; Eloundou-Enyegue and Shapiro. 2004; Lloyd and Blanc. 1996.