

The Role of Risk Perception in Child Mobility Decisions in West Africa, Empirical Evidence From Benin

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Summary. — Ethnographic research suggests that child mobility serves as a social risk management strategy for vulnerable, uninsured rural households. In line with this research, and as a supplement to previous empirical research on child mobility, this article suggests that child mobility is not only implemented as response to shocks and poverty, but also ex-ante such situations. That is, it is assumed that when households perceive themselves to be at heightened risk of critical poverty or shock, the likelihood of child-relocation increases. The hypothesis is tested by looking at the statistical association between child mobility and household head risk perception, operationalized as his or her level of worry about not being able to provide the family with food in the upcoming 12 months. Data from 2,078 households with eligible children in rural Benin, 2012, are analyzed. In 2010, Benin was struck by a massive flood that affected almost half the sampled households. In the OLS presented, child mobility is regressed on poverty, being shocked by the 2010 floods, and risk—understood as level of worry about the future food situation—and a set of socioeconomic controls. Household head risk perception is systematically associated with child mobility, while poverty and shock are not. If future risk perception indeed also predicts high-risk child relocations, then predictable social safety nets should be an adequate policy response.

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1. INTRODUCTION

The traditional practice of circulating children between households in West Africa has in the past 10–15 years increasingly been considered a source of child vulnerability. In spite of more than a decade of policy interventions intended to curb the phenomenon, children keep moving around throughout the region. Some travel to a better life, and some indeed toward greater vulnerability. Rural poverty and shocks are often seen as triggers for child relocations, while food insecurity and perceived future risks have received less attention as possible explanatory factors.

In the rural areas of Benin and West Africa, most people fluctuate in and out of poverty on a relatively regular basis. Crop loss, animal diseases, bush fires, droughts, irregular rainfalls, and floods are constant risks; and at the household level, most families are vulnerable to job loss, illness, or death of one of the breadwinners. Most people know the feeling of hunger. When struck by a shock, households tend to resort to family- or community-based mutuality arrangements. For the other social network members, the goal becomes to help the affected household regain stability and get back into productive life as soon as possible. That way, the household can again become a contributor to its informal mutuality scheme, something that benefits everyone within it. In Benin, only one out of four rural household heads say they never worry about being able to feed their family in the year to come. Building, consolidating, and maintaining informal social safety nets is a question of life or death in the absence of formal social protection policies.

The ethnographic literature on child-fostering practices in the West African region describes how children are encouraged to invest their time and labor to benefit other members of extended family and social networks. By doing so, they help strengthen those networks and gradually earn their proper place within them. In addition, relocating between households and geographical areas, children have the opportunity to learn skills, trades, and practices other than those taught at home. In that way, they may contribute to diversifying their safety

nets and making them more robust. In line with such research this article investigates the claim that child mobility works as a social risk management strategy that can be implemented ex-ante shocks, especially among vulnerable, uninsured rural households. It proposes that beyond poverty and coping with acute shocks, insecurity about future shocks encourages such investments in informal social safety nets, and in the diversification of human capital that temporary or permanent child mobility may represent.

Data from 3,000 rural households in Benin, gathered in 2012, are analyzed. Child mobility is regressed on perceived risk, poverty, and shock and controlled for a set of demographic and culture-related variables. During the survey interview, respondents were told that a shock is understood as an event that brings a household to an unacceptable level of wellbeing. They were then asked if they had experienced shocks related to the massive floods in Benin in 2010. In the article, risk is operationalized as a fear of descending into an unacceptable level of wellbeing; that is, a situation where not even the most basic needs of the family can be met. OLS and Logit regressions are applied, both finding a strong association between perceived risk and child mobility. For comparison, another commonly addressed child outcome, school participation, is regressed on the same regressors. In this regression,

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poverty—and not risk perception—is the factor most strongly associated with schooling. It appears as though two different mechanisms are involved in producing the two child outcomes.

Child mobility is extraordinarily common in Benin and the West African region. This has two implications for this article. First, there is a widespread culture and acceptance for the mobility practice, and therefore also a large demand side. That is, many households are at any time welcoming or at least willing to take in an extra child. This makes child relocation a feasible as well as socially accepted option for a large number of vulnerable households. In societies where the practice is less common, the household relocation decision becomes much more dependent on there actually being a (tolerable) demand side. In such areas it would be more critical to also include demand side factors in a regression of child mobility. The second implication thereby relates to the potential for generalizing the findings in this article to regions where the practice is less common. The analyses made here simply assume a relatively flexible demand side, which is arguably justifiable in great parts of West Africa and in other parts of the world. The efficacy of using formal safety net designs to reduce the type of risk that triggers child mobility would subsequently be more limited in areas where the practice is rarer.

The next section of this article is the background section, which discusses the existing literature on child mobility and related practices. Section 3 presents the data used for the analysis and the origins and features of the dataset. The research strategy is presented in Section 4, followed by the empirical analysis in Section 5. Section 6 discusses the risk perception variable in more depth to provide a better perspective on how perceived risk reflects “real” risk and the extent to which it reflects the personality of the perceiver. In the last section, conclusions are drawn. The main policy implications suggested are that predictable safety nets can relieve uncertainty among household heads and by doing so can protect children from outcomes that may compromise their own aspirations in life. The article also warns against targeting supportive interventions simply by exposure to a single, covariate, and high-publicity shock, such as the Benin floods of 2010.

2. BACKGROUND

In this background section, research related to child mobility in Benin and West Africa is discussed with a particular emphasis on relating the concepts and issues brought up in this article to those in previous writings. The considerable literature on child mobility in the region ranges from research on child fostering and child migration to what is now often labeled trafficking. The practice of massive child relocations clearly contrasts with practices elsewhere, notably in western societies, where both social norms and legal frameworks assume children stay with parents unless extraordinary situations occur. Researchers have asked why it takes place and under what circumstances and have been concerned with understanding and describing the ways in which it occurs. The welfare consequences for children also have been a concern; specifically, does relocation mainly benefit the children or their families, or are perhaps all being deceived? And is there need for policy interventions in order to prevent child mobility or better protect mobile children? The topic has been studied and analyzed ethnographically (Bledsoe, 1990; De Lange, 2006; Goody, 1982; Isiugo-Abanihe, 1985), empirically (Ainsworth, 1992; Akresh, 2009; Eloundou-Enyegue & Shapiro, 2005; Kandiwa & Eloundou-Enyegue, 2008; Kielland, 2008) and theoretically (Edmonds & Shrestha,

2009, 2012; Whitehead, Hashim, & Iversen, 2005; Iversen, 2002a, 2000b; Serra, 2000, 2009). A recent and refreshing sociological contribution to the debate argues a stronger focus on children’s agency in understanding child mobility decisions in the region (Hashim & Thorsen, 2011). It importantly challenged most previous research claiming that the children mainly decide for themselves.

(a) *Child agency*

The choice of the term *child mobility* for the purposes of this article is made on the background of the child-agency debate spurred by Hashim and Thorsen (2011), who highlighted how children have been objectified in traditional research on child whereabouts. The term *fostering* is often associated with parental decision-making and regularly used in conjunction with child-objectifying expressions such as households *sending children away*. The *child-migration* term, as used by Hashim and Thorsen (2011), certainly assumes child agency, portraying children as independent migrants in charge of their own lives. Without going further into the child-agency debate, this article is concerned with all child relocations away from the household of origin, regardless of the decision-making process. It presupposes that a household above all is a group of individuals who communicate and negotiate, and supports Iversen (2002b) in the claim that children should be regarded as part of the household bargaining scheme. Household decisions affecting child outcomes are therefore here mostly understood as results of such bargaining, and involve encouragements, discouragements, facilitation, hindering, and more or less subtle strategies implemented also by members assumed to have limited negotiating power, like very young children.

(b) *Normativity*

Biological parents are widely seen as nature’s best protectors of children, in the natural sciences typically referred to by *Hamilton’s Rule*. While this argument is often depicted as a western viewpoint, also African scholars refer to the same notion of a special emotional bond between biological parents and children. However, unlike many western writers, both African and some western ethnographers point to the flipside to such sheltering: instead of seeing parental protection as helpful, they explain how parental spoiling can undermine a child’s future survival skills in an often hard social and economic environment (Isiugo-Abanihe, 1985; Last, 2000). “Hardship makes strong” is a ruling ethos (Bledsoe, 1990). Beyond protecting a child from smothering maternal love, the child fostering literature illustrates how child mobility provides new choices and chances, and offers opportunities for broader social networking (Bledsoe, 1990; Goody, 1982; Isiugo-Abanihe, 1985). Goody (1982) also shows a correlation between child fostering and degree of occupational diversification in ethnic groups.

(c) *Quantitative research*

Not much of the research on child mobility in West Africa is based on empirical analyses of country-specific data sets. The exceptions are work of Ainsworth (1992, 1996) on Cote d’Ivoire, Eloundou-Enyegue and Shapiro (2005) on Cameroon, Kielland (2008) on Benin, Kielland and Kebede (in press) on Senegal, and Akresh (2003, 2009) on Burkina Faso. Edmonds and Sallinger (2008) and Edmonds and Shrestha’s (2009, 2012) overview articles and empirical work on Indian child mobility data also deserves mentioning for methodological sophistication. Child mobility is indeed a

complex matter, and statistical analysis may struggle with handling the multifaceted scenarios producing it. Yet, data-based extrapolation of numbers and more qualified ideas of possible drivers or correlates are important with regard to a phenomenon which' numbers and circumstances are often inflated and dramatized by both media and development actors (Kielland & Bjorkhaug, 2009). Systematic registration of statistical associations can also prove useful to tailor effective programing approaches and targeting strategies, and understand when they are needed.

So, under what conditions would a household allow, encourage, or send a child to go live elsewhere? Intuitively, poverty appears a plausible explanation. Poverty consistently explains other central child outcomes such as schooling, child health, and birth registration, so why not child mobility? An important contribution of previous quantitative research in this field has been to relativize the previously ruling conviction that child mobility and related forms of child labor in West Africa were overwhelmingly a result of poverty (Kielland, 2009). At a global level, there is obviously a relationship between poverty and the circulation of children, but relative poverty at the rural community level in West Africa explains little—if anything—of the overall variation in child mobility decisions (Ainsworth, 1992; Akresh, 2009; Edmonds & Shrestha, 2012; Kielland, 2008).

Ainsworth (1992) does not find household income to be statistically significant in the out-fostering of children 7–14 years of age in Cote d'Ivoire. In fact, her regression model for the out-fostering decision turns out to explain very little. She finds this to counterargue the claim that out-fostering works as a fertility-management mechanism (p. 25). In Cameroon, Eloundou-Enyegue and Shapiro (2005) looked at the association between out-fostering of children and youth of all age groups and resources-per-child in the household of origin (quintiles), concluding that the relationship is not linear. Compared to the poorest quintile, they find a statistically significant and positive relationship between out-fostering (“*confiage*”) and being in the second income quintile, no statistically significant relationship for the third, and then a negative relation for households in the fourth and fifth quintiles. That is, the very poorest may not have access to viable fostering networks or their children may be less wanted. This suggestion is not new. As early as in 1867, the founder of Norwegian sociology, Eilert Sundt, wrote about a similar local practice in the spirit of his time:

Strangely enough, one has noticed, that precisely the destitute are the least willing to send their children away like that...or if the parents send their children away, they often come back, they have a bit of a nasty nature, with poor manners and poor habits, so looking for herders, the children of the destitute are left behind.

[Sundt, 1867–68]

Akresh (2009) looks at risk-coping elements in the child fostering decision in Burkina Faso by regressing out-fostering of 5–15 year olds on agricultural shocks. Asking farmers to assess how much of their crop was lost to agricultural shocks he finds that “*a household is more likely to send out a child in a given year if it experiences a worse agricultural shock that year*” (p. 18). Similar to Ainsworth, he does not find an impact of household wealth on the mobility decision, after testing indicators of wealth, permanent income, and a wealth IV. Kielland and Kebede (in press) estimates that in Senegal, drought-shocked households have a 14–18% increased likelihood of having children who live away from home.

Kielland (2008) finds household wealth, assessed by an index of assets and utilities, to be statistically significant only

to a sub-sample of girls' labor migration, but not to boys' or the overall sample of child migrants. Although Kielland and Hounounou (2012) point to the many gender similarities in the practice in Benin, child mobility is in certain aspects gendered. For example, girls leave at a younger age than boys. They stress that girls more often work as domestic servants, often with relatives, and show that more boys live with people referred to as employers and tutors. Kielland and Hounounou associate girl's domesticity with poverty.

In a first effort of theoretically modeling the child fostering choice in Africa, Serra (2009) seeks to reconcile the idea of fostering as an investment in the children's human capital with the fact that many children living away from home work a lot more than others. She does this by pointing to the positive externalities of fostering, and makes explicit reference to the risky environment of most rural populations in Africa.

So, are relocated children worse off? Earlier efforts to empirically study the impact of being a foster child on child outcomes like schooling and labor in the West African region were deemed to confuse apples and oranges: in most household data sets, rural children relocated toward a household near a (better) school will be confounded with run-away rebels and domestic servants. Statistical effects measured are confusing, at best, because some very different phenomena are clustered together. The same challenge is true for most studies of out-fostering, as very few datasets allow for a differentiation of fostering on fostering purpose. Akresh and Kielland do however collect their own data, including information on fostering purpose, and are able to overcome some of these obstacles. Eloundou-Enyegue and Shapiro (2005) make a deliberate divide, and are able to conclude that although many foster children work more, those who go to school have a lower drop-out rate, presumably because they represent a special sub-group of foster children who were more likely to be relocating toward a (better) school because they were smarter and more committed to their studies in the first place.

(d) Risk and vulnerability

What is scarce in the literature, so far, is empirical analysis of the current risk and uncertainty perceptions in households with and without relocated children—perceptions that are not necessarily associated with either income indicators or current, observable welfare levels. Lilleør (2008a) asks specifically if future uncertainty affects education choices in rural Tanzania. Similar to this article, she makes reference to the human capital diversification theory and finds a confirmative answer to her suspicion. She and economists such as Serra (2009) further investigated the notion that children play a role in informal social-network building and family-network skills diversification. Lilleør (2008a, 2008b) finds evidence that diversification preferences rather than schooling costs are important for Tanzanian boys. Serra (2009) explains the encouragement of siblings to develop distinct networks and skills against the backdrop of the vulnerabilities of a common rural dependency on one-season agriculture.

This article adds to the literature on child mobility by further investigating the relationship between risk perception and child outcomes. Risk, or the feeling of vulnerability, may trigger more efforts to develop social safety nets. Children work as social network builders in deciding who they work for in their free time, pay visits to, marry, or take advice from. Relocating children to another household may strengthen an existing or develop a new social alliance, beneficial both to the child and their uninsured families alike. Similar to strategic marriage, relocated children bring two important assets to

their new households—their labor contributions and their affection. Together these two assets nourish the development of a combination of emotional ties and indebtedness—an unbeatable combination in the creation of social commitment. The following analysis will therefore aim to discover if statistical associations found in the data from Benin will support or weaken such notions.

3. THE DATA

This section describes the data used in the analyses in this article, including responsible parties, sampling strategy, and some features of the questionnaire design relevant to the analysis. Some extrapolations of basic descriptive findings to the rural Beninese population are also presented. The data were collected in 3,000 households in rural Benin in 2012 through a survey coordinated by Fafo and Cabinet Stigmaté and jointly financed by the World Bank and the ECONPOP program (Hewlett Foundation, Norad and the Norwegian Council of Research). The sample was constructed in collaboration with the central statistical agency in Benin, INSAE, and covers all 11 departments of the country. Due to the relatively old census in the country, re-enumeration was conducted in all the clusters drawn. The primary purpose of the data collection was to assess the impact of the grand floods of 2010 on rural livelihoods in general and on child outcomes in particular. Areas that INSAE had registered as severely affected by the flood were oversampled, and then the oversampling is corrected for in the analysis by weights designed in collaboration between Fafo and INSAE. The survey is fertility based and is a further development of a similar survey format applied in Benin (Kielland & Ouensavi, 2000), Burkina Faso, (Kielland & Sanogo, 2002) and Senegal (Kielland & Gaye, 2010) and inspired by Unicef/IHE/Fafo's surveys on youth mobility and child domesticity in Haiti (2009 and 2014). A fertility-based survey maps all children born to all female residents of the sampled households by interviewing each woman household member (see Edmonds & Shrestha, 2009, for a further explanation of the approach and descriptions of the surveys mentioned). To ensure that also orphaned children are represented, men in the sampled households are asked if they have maternally orphaned children, and women to report if they are the paternal grandmother of double-orphaned children. The survey then systematically maps the whereabouts and reasons for leaving of the children listed.

Some descriptive data results are useful as a backdrop to the further empirical approach taken in this article. In the survey report (Kielland & Hounsounou, 2012) it was extrapolated from the data that in 2012, 180,000 children zero to 17 years-of-age currently lived away from their households of origin in rural Benin, 73,000 boys and 106,000 girls. Mobility not surprisingly increases by age, and girls leave earlier than boys. While 8% of boys and 14% of girls 11–14 years-of-age live away from home, 15% of boys and 18% of girls 15–17 years-old have left their rural households of origin. Forty-two percent of the absent boys and 38% of the absent girls were reported to have left to go to formal school. However, 5% never got to start school and another 5% had dropped out at the time of the survey (Kielland & Hounsounou, 2012). The survey report also shows low mobility and schooling rates in the northern part of the country. This probably relates to the fact that almost one out of four survey respondents in the north are involved in cash-crop production (cotton), compared to around 2% in other areas. Alongside a range of cultural and religious differences, this

would suggest that children from the north are more likely to find work nearby home, reducing incentives to relocate, and increasing the opportunity costs of schooling.

4. EMPIRICAL STRATEGY

This section presents the regression model, its main components and the rationale for its composition. First, the three dependent variables—child mobility in general, school absenteeism, and relocation without schooling—are introduced and explained. Second, the three main correlates—poverty, shock, and risk—are discussed. Finally, five sets of sociocultural controls are presented and described.

(a) *Dependent variables*

The analysis sets out to examine the relationship between on the one hand poverty, shock, and risk and on the other hand child mobility decisions. The suggested mechanism for a link between child mobility and risk is that children relocate from vulnerable households also before potential shocks, in order to get better opportunities and to strengthen their own and their household's informal social safety nets. It should be stressed that a regression based on single cross-section data cannot provide evidence of causality, but only association between variables. The analysis units of the regression are the households of origin, and three different dependent variables are studied. The main dependent variable is whether there is *at least one household child below 18 years of age, who currently lives away from home*.

Second, lack of schooling will be regressed on the same right-hand side variables. Schooling regressions normally conclude that wealth, and often shock, are negatively associated with school attendance. (For a recent review, see Olaniyan, 2011). Therefore, if the housing-based wealth indicator and schooling are associated as expected, then this wealth indicator should be robust. Moreover, if the population sampled behaves according to the norm in the schooling regression, then it should also be less likely to behave atypically in the other regressions. In short, finding the expected associations in the schooling regression increases the likelihood that patterns from the mobility regressions also could be found in other, similar populations outside Benin. The dependent variable is in this case whether the *household has at least one school-aged child who is not in school*. Third, the two choices are run together in a regression of *child mobility for other purposes than schooling*. The results of this regression should indicate the correlates of a presumably more risky type of child mobility, and should be expected to reflect the results of the two previous regressions. The variable is defined as whether the *household has at least one child who lives away from home for other reasons than schooling*. Seventeen percent of the sampled households have at least one child living away from home, 51% of households with school-aged children have at least one such child who is not in school, while 14% have a child living away and not going to school.

The household sample analyzed differs between the first and the two other regressions. The definition of the dependent variable in the first regression is blunt in the sense that it lumps all children 0–17 years old, into one bag. All households with at least one child under the age of 18-years-of-age are part of the sample ($N = 2078$). This choice was partly made to avoid an overly complex analysis, but also because this article focuses on children's role as network builders and liaisons between households. Age is subordinate to whether network

investments are made by means of affection, labor, or marriage. In the second and third regression, only households with school-aged children, since it makes little sense to examine the schooling choices of households only with children below school age ($N = 1602$).

(b) *Main regressors*

The main regressors in the analysis are indicators of poverty, shock, and risk. Income and consumption are strongly fluctuating and hard-to-measure in rural African households. The fact that neither Ainsworth (1992) nor Akresh (2009) found much correlation between out-fostering and income (Akresh also tested an income instrument based on characteristics of the respondent's parents) may be partly due to this fact. It is therefore still common to use the easily observable and less fluctuating indicator of household main building quality as a wealth proxy. Another common way to assess wealth in this type of household is by taking an asset count. Both approaches are common in analyses where a socioeconomic stratum is a covariate, following Filmer and Scott (2008) for DHS analysis. Both approaches were tested here yielding quite similar results, but the asset count is vulnerable to several factors. First, different assets relate differently to child mobility (tables not included; for more details on the data, see Kielland & Hounsounou, 2012). Second, productive assets increase the marginal return to child labor in and around the household, which could be a disincentive for mobility. Third, central assets like radio and bicycle are often used as salary for child labor in Benin, especially for seasonal work away from the household. A standard index was therefore created to reflect whether the floor, walls, and roof of the main household building are constructed in solid materials (values 0–3). The wealth indicator used here is thus an expression of the overall solidity of the household economy, as this is expressed in its' housing standard. Eighteen percent of households have score 0, 40% score 1, 35% score 2, and 17% score 3 on the housing index. The indicator behaves as expected in preliminary cross-tabulations of commonly measured child outcomes: in 38% of households with no solid building parts, there is at least one school aged child who is not in school, while the same number for households where all the building parts (floor, roof, and walls) are solid is only 13%. There is a similar trend for birth certificates. In only 44% of the households with the poorest buildings, all the children had birth certificates. The same number for households with all solid building parts was 76%. Housing quality thus seems a good indicator of certain anticipated child outcomes in the surveyed area.

Moving on to shocks, it makes intuitive sense to believe that households drabbed by a crisis may respond by encouraging children to leave. In Benin, the grand flood of 2010 represented such a major shock, and affected almost half the surveyed rural population (Kielland & Hounsounou, 2012). The survey interviewers explained to the respondents that a shock was considered an event that had led to a serious income drop, significantly reduced consumption or an important loss of assets. The respondents described their sufferings to loss of harvest (40%), loss of savings (32%), loss of buildings or infrastructure like wells (27%), loss of animals (23%), undernutrition and illness (22%), loss of revenue (21%), becoming indebted (16%), had to flee the household (12%) and having to host refugees in their homes (6%). Overall, these are rather strong figures that illustrate the nature of a major covariate shock to Benin. In an open-ended question the interviewers had also noted the death of relatives, lost pregnancies,

reduction of meals, relatives who had been affected, inaccessible markets preventing both selling and buying goods and produce, wells that had been destroyed, destruction of grains in storage, being hindered from accessing farmland, insect invasions, and people who had to leave their own farms and go work for others. Or as one respondent concluded: misery. Each different flood-related shock was tested separately, in general yielding similar results in the child mobility regression. In the analysis, all these reports are therefore summarized in the dummy variable referred to as "Flood shocked 2010", and has the value 1 for 48% of the surveyed households.

The third and most central variable in the analysis is the risk variable, as examining behavior ex-ante shock and poverty is the main aim of the article. Do vulnerable households relocate children prior to shocks, perhaps to strengthen social ties with other households or add some geographical diversity to a social network vulnerable to local natural disasters? Risk is here addressed based on a food security question, where the responding household heads were asked *how much they worried about not being able to feed their families in the coming 12 months*. Risk is in other words defined as vulnerability, and corresponds to a definition that equals vulnerability to "the exposure to uninsured risk leading to a socially unacceptable level of well-being" (Hoogeveen, Tesliuc, & Vakis, 2005). Risk is that way linked up to the poverty concept, defined as *an unacceptable level of well-being*, but contrasts the shock-definition which only supposed sharply deteriorating economic conditions and not necessarily critical poverty. Among the responding household heads, 21% said they did not worry at all about being able to feed their families in the next 12 months, 44% said they worried from time to time, and 35% said they worried a lot. The variable was coded with values ranging from 0 to 2, after also testing its' behavior as a dummy for *severe worry* (those who worry a lot compared to others) and *general worry* (those who worry compared to those who do not), with fairly similar results.

The risk variable is no doubt a perception variable, and therefore in some ways vulnerable. It is increasingly common to use independent meteorological data to assess vulnerability, under the assumption that these type of data are exogenous in the household equation. However, in areas of dry land agriculture in Africa there is little reason to assume people are randomly assigned to climate vulnerable and non-vulnerable areas in the first place. That is, if the socioeconomic groups driven to live and farm on the most climate vulnerable plots are not random, then there will still be a causal relationship between household features such as poverty, ethnicity, and climate shocks. As in most other social equations, climate exposure therefore tends to be associated with a range of household features. There are two obvious benefits of using the self-reported vulnerability indicator. First, it provides a measure of inter-household, rather than inter-community, variation. Second, it conveys elements of the household head's assessment of his or her risk situation. These elements would have been unfortunate if regressed on another perception variable, but they can be helpful in understanding a more concrete household choice such as child relocation (further discussed in a later section).

Table 1 gives a preliminary overview of the bivariate correlations between the three core regressors and the three outcome variables; the household has at least one child who is currently away, the household has at least one school-aged child who is not in school, and the household has at least one child who is currently away and not attending school. Wealth, indicated by house quality, correlates negatively with having a school-aged child out of school, and also negatively

Table 1. *Bivariate correlations between the dependent variables and the main correlates*

Predictor	Test	Bivariate correlates			Main correlates		
		Child away	No school	Child away no school	Wealth	Risk	Shock
Child away from household	Pearson C.	1	.261**	.779**	-.020	.124**	.044*
	Sig. (2-tailed)		.000	.000	.364	.000	.047
School-aged child not in school	Pearson C.		1	.368**	-.158**	.036	.046*
	Sig. (2-tailed)			.000	.000	.102	.036
Child away and not in school	Pearson C.			1	-.059**	.097**	.034
	Sig. (2-tailed)				.007	.000	.123
House quality (wealth)	Pearson C.				1	-.166**	-.134**
	Sig. (2-tailed)					.000	.000
Worry, next 12 months (risk)	Pearson C.					1	.189**
	Sig. (2-tailed)						.000
Flood-shocked 2010 (shock)	Pearson C.						1

Note: $N = 2,078$.

* $p < .01$.

** $p < .05$.

*** $p < .1$.

with having a child away for reasons other than schooling. Wealth however, does not seem to correlate with child mobility in general, linking wealth primarily to the schooling factor. The 2010 flood shock appears to correlate with both school attendance and mobility equally, but is not closely correlated with mobility for other reasons than schooling. Finally, the risk variable correlates positively with both the two mobility indicators, but not closely enough with schooling to be statistically significant. Table 1 also shows the correlation between the three predictor variables. Not surprisingly, they all correlate, but one could perhaps have expected the correlations to be considerably stronger. As they appear, there should be no problem including them all in the same regression, and a maximum bivariate correlation of less than .19 calls for no further examination of potential multicollinearity issues.

Could household heads have over-reported their worries in order to retrospectively justify already-made child relocation decisions? This could well have been the case if the survey or the interviewers had conveyed a judgmental attitude toward child relocation practices, and especially so had child relocation been a socially stigmatized practice. However, child relocation is very common in Benin, and relocated rural children are often even viewed as fortunate. Indeed, the local concept for a relocated child, *vidomegon*, traditionally connoted a child who had been granted a chance. However, had a question on child relocation been posed immediately before the question of worries, the first question could still have influenced the second. It is therefore important to note that the fertility module of the survey and the household interview comprising the food security questions were conducted independent of each other and in most cases also with different household respondents.

With regard to the sequencing of shock, worries, and time of departure, this would have been a concern had child relocation been a one-time event. However, children often relocate back and forth between households, a phenomenon referred to as circulation, making the co-occurrence of worry and child absence a relevant focus.

(c) Controls

With the considerable social, cultural, and demographic differences that exist in Benin, there is all reason not only to

control the three core independent variables for each other, but also for an extensive set of cultural and demographic variables. Features of the household head are natural controls, although one should assume that a child relocation decision is a result of a household bargaining process between household members, and possibly even including outsiders. Three features of the household head are used in the regression. First, a dichotomous variable expresses the effect of having a female household head (15% of household had). Second, the age of the household head is included, and finally there is an indicator for household head illiteracy, based on whether he or she can read and write French, which is the official language in Benin (73% of the sampled household heads are reporting to be illiterate).

Household decisions in West Africa are often strongly affected by cultural and geographic conditions. From a statistical perspective, Benin is in this regard a pleasant country to work with: there are several ethnic, language, and religious groups that can help cluster cultural values and traditional practices in data sets like this. With regard to religion, most people in Benin still have a bond to the traditional Voudon religion, although only 24% of the sample report Voudon as main religion in the household. The second largest group is the Catholics, accounting for 23% of the sample, followed by the Muslim population (19%). The Celestial Church of Christ (8%) is a local Beninese Christian congregation. Six percent have registered as secular. The reference group is then other Christians, mainly Lutheran/protestant congregations, which constitute 19% of the sample. Turning to ethnicities, the Fon (36% of the sample) are counted as the majority group, and Fon is the most commonly spoken language. They are kept as the reference group in the regression. The second largest group is the Adja, followed by the Yoruba, the more northern Dendi, Bariba, and Ditamari.

The majority of the household heads in this rural survey not surprisingly reported subsistence agriculture to be their main profession. Eight percent also involved in commercial agriculture. Twelve percent reported crafts as their main sector, 10% trade, and 2% livestock. The remaining 15% reporting other occupation groups serve as the reference group in the regression. With regard to geography, Benin is naturally divided into three zones: the coastal and relatively urbanized

south, the center, and the dry, Sahelian North. Both religion and ethnicity correlate with zone, but not to an extent that excludes them all from appearing in the same equation.

In earlier child fostering studies, it was common to include the number of siblings in child relocation regressions. Yet, more recent discussions have highlighted the problem of endogenous fertility decisions, and the potential biases arising from endogenous household structure (Akresh, 2009). While on the one hand side, the availability of orphans or foster children may come to lower fertility in certain areas or social groups, the opposite may be true among others: widespread social practices of out-fostering may increase fertility as children can quite easily be relocated to other households during periods of vulnerability. In short, fertility can be affected by the local fostering practices, and thus endogenous to the child mobility equation. Potentially endogenous sibling variables are therefore omitted here.

5. EMPIRICAL ANALYSIS

This section presents a statistical description of the variables used and the results from the three main regressions. The regressions were conducted in Logit and OLS. Both yielded very similar results with regard to signs, effects, and statistical significance, with Logit producing some slightly larger coefficients. Here, the main regressions will be presented in OLS, as the format is more intuitively understandable. Later effects estimates will show both OLS and logit results, as they differ slightly in a few points, especially concerning simulation effects.

(a) *Correlates*

Table 2 shows the variable descriptives for the variables presented in the previous sections. “Other Christian groups” function as the reference category for the religious variable, the largest population group, Fon, serve as reference group for the ethnic variable, and subsistence farmers are references for the profession variable. On the geographical variable, the northern and central populations are compared to the population in the south.

Tables 3–5 show the OLS results for the regressions of each of the three dependent variables, gradually phasing in the controls. First, Table 3 shows the associations between the three main regressors and the likelihood that a household has at least one child living elsewhere. At no point is household wealth associated with child mobility. Being flood-shocked two years prior to the survey also shows no association. Risk perception, on the other hand, is clearly related to child mobility, regardless what controls are introduced. Coefficient size is reduced, especially after religious and ethnic controls are included, but the statistical significance remains strong.

With regard to the controls, the OLS and the logit behaved quite similarly, showing a positive correlation between the age of the household head and child relocation. Adhering to the traditional Voudon religion is also associated with child mobility, and so are the ethnic groups Ditamari and Bariba, the latter only in the logit and not in the OLS. The Adja are negatively related to child mobility and so are households involved in livestock production, again the latter only in the logit. Coming from the Northern region is strongly negatively associated with mobility in both regressions, but the differences between the south and the center earlier observed seem to be attributed to other factors.

Table 4 similarly shows the results for the likelihood that a household has at least one school-aged child who is not attending school. This regression is quite different from the previous one. The wealth variable shows a strong and consistent correlation with school participation, confirming that schooling also in rural Benin behaves as a normal good. Perhaps more surprisingly, neither risk nor the flood shock is associated with schooling, contrarily to the common assumption that major shocks may make children abandon school (Holzmann & Jørgensen, 2000). Whatever negative effects these households experienced during the grand floods in 2010, no association can be found between being flood shock and school absenteeism two years later. Risk seems important for the child mobility decision but not the schooling decision, while the contrary is the case for the wealth indicator. This suggests that two quite different decision-making processes may be interacting with these two child outcomes.

The OLS and the logit were close to identical for the schooling regression. Directions and significance levels are in fact identical. Among the controls, household head age and illiteracy are, not surprisingly, positively associated with non-schooling, as is being a Bariba or working in the primary sectors of agriculture and livestock production. Being a Catholic, Adja or Yoruba are negatively associated with non-schooling.

Table 5 shows OLS regression results when schooling and mobility choices are combined in the outcome variable of child mobility without schooling. The risk variable continues to dominate the results, being strongly associated with having a child living away from the household without going to school. The wealth indicator is not statistically associated. Being flood shocked in 2010 also continues to seem unrelated to the child outcome studied. The logit yields similar results, but the coefficients are slightly larger.

Among the controls, Catholicism is negatively related to child mobility for other reasons than schooling, and so is being Adja, Yoruba or coming from the North. The logit also indicate a positive correlation for being Bariba or Ditamari.

(b) *Effects*

Looking at the effects, Figure 1 shows the relationships of risk and the probability of the two child mobility decisions and lack of schooling. First, the other regression variables are fixed on means or majorities. The basic household in the risk figure therefore has values equaling the means of the main household and household head features, while it is set to Voudon (largest religious group), Fon (largest ethnic group), subsistence farmers (largest profession group), and belonging to the central region of the country. Before interpreting the numbers, it is important to recall that these four groups have relatively high mobility likelihood, especially the Voudon, so the figures will appear larger than national averages.

In Figure 1, note that the relationship shown between risk and probability that the household has at least one school-aged child who is not in school is not statistically significant in the logit. The figure shows the probability of such non-schooling between those who never worry and those who worry a lot increasing from 59% to 62% (60–63% in the logit). The effects measured on child mobility likelihoods are both statistically significant and strong. Child mobility probability overall increases from 24% where the household head never worries, to 28% in households where the head worries sometimes. In households where the head worries a lot, the probability of having at least one child living away is 33 percentage points. The logit shows an even clearer trend as going from worrisome to severe worry increases the likelihood of having a

Table 2. *Descriptive statistics of variables*

	<i>M</i>	Range	<i>SD</i>
Dependent variables			
Child away from household	.17	0–1	.374
School-aged child not in school	.41	0–1	.492
Child away and not in school	.11	0–1	.312
Main correlates			
House quality (wealth)	1.41	0–3	.975
Flood shocked 2010 (shock)	.48	0–1	.500
Worry, next 12 months (risk)	1.14	0–2	.733
Features: Household head			
Household head female	.15	0–1	.355
Household head illiterate	.73	0–1	.443
Household head age	42.48	18–90	13.461
Religion			
Catholic	.23	0–1	.420
Celestial	.08	0–1	.266
Muslim	.19	0–1	.396
Voudon	.24	0–1	.426
Secular	.06	0–1	.232
Other	.02	0–1	.132
(Other Christians, residual)	.19	0–1	.389
Ethnicity			
Adja and similar	.31	0–1	.461
Bariba and similar	.07	0–1	.249
Dendi and similar	.07	0–1	.248
Ditamari and similar	.04	0–1	.199
Yoruba and similar	.08	0–1	.268
Other ethnicities	.09	0–1	.281
(Fon, residual)	.36	0–1	.479
Profession/sector			
Agriculture, commercial	.08	0–1	.265
Agriculture, subsistence	.54	0–1	.499
Livestock	.02	0–1	.149
Trade	.10	0–1	.294
Crafts	.12	0–1	.323
(Other professions, residual)	.15	0–1	.358
Region			
North	.27	0–1	.442
Central	.43	0–1	.495
(South, residual)	.31	0–1	.462

Note: *N* = 2,078.

child living elsewhere from 22% to 36%. The likelihood that the household has a child who has left the household and is not in school increases from 26% in households where the household head never worries about providing his or her family with food next year, to 31% in households where the head worries a lot. Again, the logit shows a stronger trend, increasing the child relocation probability from 25% to 37%. So, going from not worrying to worrying a lot raises probability of having a school-aged child who is not in school by 3 (3) percentage points (5%), the probability of having a child who lives elsewhere by 9 (14) percentage points (38–64%), and having a child living elsewhere without going to school by 5 (12) percentage points (19–48%).

Figure 2 show the relationship between the wealth indicator based on house building quality and the probability that a household has at least one child who is away, away for other reasons than schooling, and that the household has at least one school-aged child who is not in school. Importantly the correlation between child mobility and wealth is not

statistically significant, but had it been, only a 2 (5) percentage point drop in mobility likelihood is estimated when moving from the very poorest household with no solid building parts to the very wealthiest with all solid building parts. While a household with no solid building parts has a probability of having a child living elsewhere without going to school of 30 (35)%, the very wealthiest household has a probability of 27 (28)%. The relationship between wealth and schooling is however strong and clear, as should be expected. While the poorest households have a likelihood of having at least one school-aged child who is not in school of 65 (66)%, it drops by 10 (10) percentage points when one comes to the wealthiest households.

6. “REAL” RISK AND NEUROTICISM

This section discusses the meaning of “risk perception” and looks more closely at the association between level of worry and personality type. The link between perceived food

Table 3. *Child living away from home: OLS coefficients and standard errors (in parenthesis) for predictor variables table shows the OLS coefficients and standard errors (in parentheses) for the three main predictor variables on the probability that a household has at least one child living away from home; sequentially introduced controls*

Variable	Sequence					
	1	2	3	4	5	6
Constant	.088*** (-.022)	.001 (.035)	.033 (.038)	.083** (.039)	.081* (.043)	.089** (.044)
Wealth	.001 (.009)	-.002 (.009)	-.002 (.009)	-.008 (.009)	-.008 (.009)	-.008 (.009)
Shock	.014 (.017)	.015 (.017)	.002 (.017)	.001 (.017)	.000 (.017)	-.002 (.017)
Risk	.062*** (.012)	.056*** (.012)	.049*** (.012)	.041*** (.012)	.042*** (.012)	.041*** (.012)
Individual controls		Yes	Yes	Yes	Yes	Yes
Religious controls			Yes	Yes	Yes	Yes
Ethnic controls				Yes	Yes	Yes
Profession controls					Yes	Yes
Regional controls						Yes
R2	.016	.025	.042	.061	.064	.055

Note: $N = 2,078$.

* $p < .01$.

** $p < .05$.

*** $p < .1$.

Table 4. *Child not in school: OLS coefficients and (standard errors) for predictor variables table shows the OLS coefficients and standard errors (in parentheses) for the three main predictor variables on the probability that a household has at least one school-aged child who is not in school; sequentially introduced controls*

Variable	Sequence					
	1	2	3	4	5	6
Constant	.636*** (.033)	.226*** (.055)	.159*** (.059)	.199*** (.060)	.147** (.065)	.134** (.067)
Wealth	-.085*** (.013)	-.064*** (.013)	-.055*** (.013)	-.042*** (.013)	-.031** (.013)	-.032*** (.013)
Shock	.020 (.025)	.007 (.024)	.026 (.024)	.018 (.024)	.013 (.024)	.012 (.025)
Risk	-.013 (.017)	-.019 (.017)	-.006 (.017)	.008 (.017)	.010 (.017)	.012 (.012)
Individual controls		Yes	Yes	Yes	Yes	Yes
Religious controls			Yes	Yes	Yes	Yes
Ethnic controls				Yes	Yes	Yes
Profession controls					Yes	Yes
Regional controls						Yes
R2	.027	.092	.119	.152	.165	.165

Note: $N = 1,602$.

* $p < .01$

** $p < .05$.

*** $p < .1$.

insecurity and child mobility seems indisputable. Yet, the origins of perceived risk are not entirely clear. Risk perception is obviously a perception variable with the possible vulnerabilities that such subjectivity bring to the regression. In an ideal world, risk perception would reflect a “real” vulnerability scenario. The perceived risk of not being able to feed the family in the next 12 months would then correspond to the relative likelihood of food scarcity actually happening to the household.

That is, the likelihood that a severe enough shock will bring the household down to a socially unacceptable level of well-being.

Yet perceptions often don't reflect an objectively verifiable reality, at least not proportionally. Personality and earlier experience affect how people evaluate their prospects. The Big 5 personality traits framework portrays a neurotic personality type characterized by low tolerance to stress and a

Table 5. *Child living away and not in school: OLS coefficients and (standard errors) for predictor variables table shows the OLS coefficients and standard errors (in parentheses) for the three main predictor variables on the probability that a household has at least one child living away from home and not going to school; sequentially introduced controls*

Variable	Sequence					
	1	2	3	4	5	6
Constant	.101 ^{***} (.023)	.116 ^{***} (.039)	.156 ^{***} (.043)	.223 ^{***} (.044)	.228 ^{***} (.047)	.229 ^{***} (.048)
Wealth	-.012 (.009)	-.010 (.009)	-.010 (.009)	-.011 (.010)	-.010 (.010)	-.010 (.010)
Shock	.003 (.017)	.003 (.017)	-.008 (.017)	-.011 (.018)	-.015 (.018)	-.016 (.018)
Risk	.041 ^{***} (.012)	.040 ^{***} (.012)	.035 ^{***} (.012)	.029 ^{**} (.012)	.030 ^{**} (.012)	.029 ^{**} (.012)
Individual controls		Yes	Yes	Yes	Yes	Yes
Religious controls			Yes	Yes	Yes	Yes
Ethnic controls				Yes	Yes	Yes
Profession controls					Yes	Yes
Regional controls						Yes
R2	.010	.012	.028	.056	.059	.066

Note: N = 1,602.

* p < .01

** p < .05.

*** p < .1.

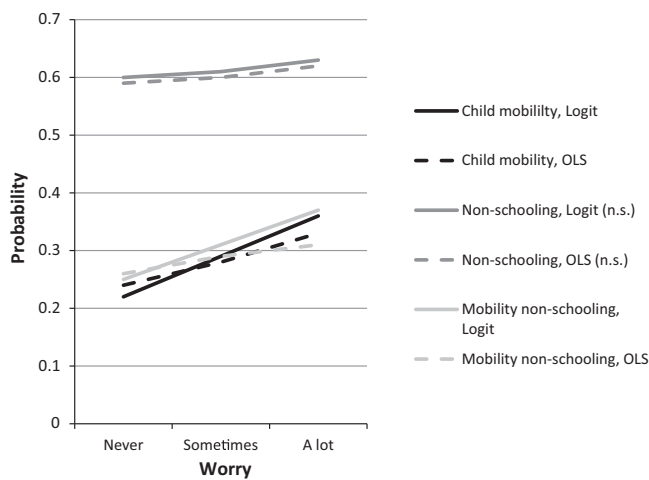


Figure 1. *Logit and OLS estimates. Figure depicts the relationship between risk perception and the probability of child mobility, nonschooling, and child mobility for reasons other than schooling (risk perception measured by household head worrying never, sometimes or a lot about providing for his/her family in the months to come).*

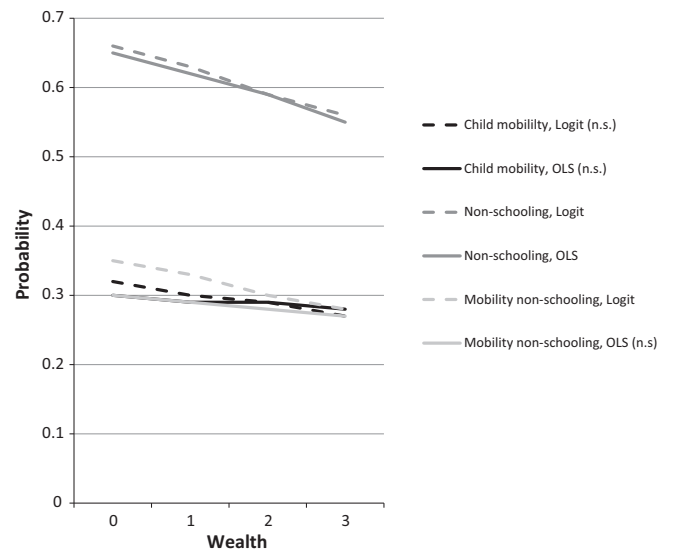


Figure 2. *Logit and OLS estimates. Figure depicts the relationship between wealth (0–3) and the probability of child mobility, nonschooling, and child mobility for other reasons than schooling (wealth measured by housing standard).*

tendency to perceive relatively minor challenges as threatening (Costa & McCrae, 1992). So, the household head that worries a lot in the analysis in this article may on the one hand be someone who is indeed facing a really risky future, but on the other hand be someone with a neurotic personality type who perceives an insignificant cue to be a possible threat. Most likely, each person expressing a lot of worry is affected by one or another combination of the two factors.

Looking more closely at the correlates of the worry indicator may serve as a reliability test while also broadening the understanding of the mechanisms at play in the child mobility decision. The Benin survey has no module related to the Big 5,

but it does contain the standard questions of the ten personality types used in the World Values Surveys (WVS) that bear reference to Schwartz's (2012) theory of basic values. The description of 10 personalities are read to the respondents, who are then asked if they would say this person is not at all like them, a bit like them, or a lot like them. Ideally, these identity traits could be seen as more deeply engraved in the respondents and as established prior to the development of current preoccupations. This is, of course, a strong assumption. Inglehart's (1971) early writing on the origins of the WVS values are based on two hypotheses, both stating that

Table 6. OLS correlation between WVS personality traits and level of worry among household heads (0–2)

Is it important to this person	Coefficient	SE
(Constant)	1.070 ^{***}	0.074
To think up new ideas and be creative; to do things one's own way?	-.084 ^{***}	0.023
To be rich; to have a lot of money and expensive things?	-.060 ^{***}	0.023
To live in secure surroundings; to avoid anything that might be dangerous?	.086 ^{***}	0.030
To have a good time; to "spoil" oneself?	-.045 [*]	0.023
To help the people nearby; to care for their well-being?	.024	0.029
To be very successful; to have people recognize one's achievements?	-.007	0.022
To be adventurous and take risks; to have an exciting life?	-.005	0.021
To always behave properly; to avoid doing anything people would say is wrong?	.145 ^{***}	0.029
To look after the environment; to care for nature?	-.070 ^{***}	0.027
To follow the customs handed down by one's religion or family; tradition?	-.029	0.021

Note: $N = 2,078$.

^{*} $p < .01$

^{*} $p < .05$

^{***} $p < .1$.

influences during a person's adolescence are crucial to later value choice. Notably he hypothesizes that growing up during times with calm and economical security leads to the development and internalization of post-materialist values—like that of caring for the environment—over mere security and material concerns. In other words, the worry variable and the WVS-personality trait-variables may be to some extent jointly determined by similar historical factors.

Table 6 shows the OLS correlates of the WVS personality types and the worry-variable (assigned value 0 for not worrying at all, value 1 for worrying sometimes, and 2 for worrying a lot). In the analysis, each personality type can score 0 for the response "not at all like me", 1 for the response "a bit like me", and 2 for the response "a lot like me". The results indicate that six of the 10 WVS personality traits are correlated with level of worry and they behave as one should expect. The two personality traits that correlate positively with level of worry are not surprisingly the two traits that most intuitively would indicate neuroticism. Showing the strongest impact is identifying with someone who is deeply concerned with behaving properly and avoiding anything that people may criticize. The other, also quite influential relatively speaking, is the type who finds it important to live in safe surroundings and avoid anything that might be dangerous. If reduced worrying goes with less materialist personality types, it makes good sense when the environmentally conscious and those believing in being creative and following new and individual ways also worry less about the future. Finally, people who think that accumulating wealth and expensive things is important also, not surprisingly, worry less.

To look further into how personality features impact worry level, the results of the analysis shown in Table 6 are used to predict the level of worry of household heads. Replacing the worry variable by the personality-predicted worry variable also yields statistically significant results in the child-relocation regression. Yet, the bivariate correlation between the worry variable and the personality-predicted worry variable is only 0.234, indicating such personality features only determine a smaller part of the worry level reported by household heads. Since the bivariate correlation is relatively low, including both variables in the same equation should not affect overall results in any dramatic way. Further, by doing so, the personality-predicted worry indicator serves as a control for the original worry indicator. The original worry indicator, now controlled for some personality-related noise, remains statistically significant (at 0.002) with the coefficient falling only slightly (to 0.037). The personality-predicted worry

indicator is not statistically significant in the new regression. The regression for children who have left home without going to school behaves the same way, with the coefficient for worrying falling only slightly to 0.026.

Does it matter whether the future worry expressed by the survey respondents reflects "real" risks or an anxious personality? Whereas personality explains parts of the variation in worrying, the real risk scenario probably also plays an important role. Looking more closely at what may explain risk perception, beyond "real" risk, helps to better understand the mechanisms behind people's worries, but does probably not mean much overall to the child outcomes studied in this paper. Children relocate and stay away from households where the heads worry about the future. This happens regardless of whether the "real" risks are bigger than the risks posed to the neighbor next door or not, or whether the household head has a harm avoidant personality more in general.

7. CONCLUSIONS AND POLICY REMARKS

This article has two main research conclusions. The first is that school participation and child mobility seem to be associated with different factors. In fact, child mobility seems related to other mechanisms than some other commonly measured child outcomes. The second and most important conclusion is that in rural Benin, the risk perception of household heads matters to the decision of allowing or encouraging children to leave or continue to stay away from the household. Where household heads worry about being able to provide their family with food in the coming 12 months, children are more likely to have relocated away from the household to live elsewhere. The analysis supports previous studies in concluding that relative poverty is a poor indicator of child relocation likelihood. At its best, current poverty may contribute to explain child relocations for other purposes than schooling, but with a marginal overall impact, and in the fringes of being statistically significant. Being shocked by the massive floods in Benin in 2010 seems unimportant to the living arrangements of children two years later. Testing the different types of flood-related shocks reported independently, and also a range of other co-variate shocks gave the same result. This is probably due to the fact that the flood, regardless of its' high media profile, in the end was only one among many shocks that at a certain frequency strike most rural households in the region. Two years later, many other shocks may have evened out all differences.

Poor, formally uninsured households have a number of informal social risk management strategies in their repertoires, many of which involve children directly or indirectly (Kielland, 2009). When children have to quit school as response to a shock, engages in child labor, or get less food, Holzmann and Jørgensen (2000) describe this as dis-saving of human capital. But, as suggested in this article, children can also play a role in ex-ante strategizing to reduce the harmful impacts of a possible future shock—similar to what Sadoulet, Finan, de Janvry, and Vakis (2004) refer to as children acting as social risk management tools. Yet taking on this role on behalf of the household forces children to negotiate their own aspirations against the needs of their family. This makes the call for more formally organized public social safety nets all the more relevant.

Goal 10 of the new Sustainable Development Agenda calls for the adoption of social protection policies to progressively achieve greater equality. Such policies can range from pensions, child benefits, conditional cash transfer programs, and public works, to health insurance plans. Financing such policies in low-income countries will be a short-term challenge, but hopefully also an investment for economic growth and higher future public revenues. Research has already proven that certain social protection interventions help improve the lives of child. The various assessments of the impact of the South African child benefits and even pensions on child outcomes indicate a systematic and positive impact of predictable transfers on child welfare, especially when the transfer recipient is a woman (Dufflo, 2003). Perhaps most relevant here, Edmonds (2006) shows how a highly reliable and anticipated pension income contributes to reduce child labor and increase schooling in poor South African children. Recent social protection programs increasingly feature some sort of allocation of cash, kind, or jobs to poor and vulnerable households. Common designs are public works programs and cash transfer programs, conditional or not, targeted or not. These programs are more influential when they are long term, meaning their benefits can be predictable to the population. Future insecurity of basic food provision is clearly eased in a society where people can count on their pensions or child benefits arriving, or be sure to receive food, cash-support, or public-work offers in case of a crisis. Reliable social protection policies clearly address the undesirable informal strategies otherwise applied to mitigate the type of social insecurity revealed in this article.

So, the first policy conclusion is that predictability is important to gain the desirable effect from social protection interventions on risky child mobility in Benin. However two other results of this article may also have implications for program tailoring, especially program targeting designs. First, the fact that current wealth alone seems unimportant in the mobility decision would indicate that targeting based on observable household poverty at one certain point in time (like program start-up) will lead to both program inclusion and exclusion errors. An interaction variable for risk*poverty was designed and tested in earlier versions of this article. The interaction variable caused multicollinearity in the regression equation by correlating too closely with poverty and risk as individual variables (.780). It was, however, tested individually and was statistically significant in all the regressions, in the expected directions. Yet, replacing the risk and the poverty variable with the interaction variable weakened the overall model

and led to the loss of interesting information so the interaction variable was consequently omitted. It no matter showed that risk and poverty in combination matters both to child mobility and school absenteeism. Eligibility for risk reducing social safety-net programs should in conclusion preferably be continuously considered, based on a more complex evaluation of household vulnerability and poverty, or targeting could be dropped all together.

Second, the fact that the grand floods of 2010 had so little impact two years later should serve as a warning against targeting longer-term interventions based on exposure to one, high-profile disaster. Victims of large-scale covariate shocks no doubt need special targeting immediately after a disaster in order to cope with the damages they have suffered. This is especially important because available informal social safety nets of mutual support most likely have been shocked simultaneously. But for longer term social programing, it makes little sense to discriminate between victims of high-profile disaster and the victims of the myriads of smaller, perhaps idiosyncratic shocks that keep happening to poor people in rural areas of Africa.

Does it matter whether the worry levels registered in this survey reflect a real risk scenario or an anxious personality? To the child mobility decision, it really does not. People act on perceptions and not on “reality”, if such a thing exists. Yet, the origins of worry may have an influence on effective policy and programing design. At least in theory, one could assume that access to a predictable transfer would ease a rational fear of food scarcity in vulnerable households. If the fear expressed primarily is based on neuroticism, then the impact of such arrangements would perhaps be less predictable. The conclusions here is that there is little reason to doubt that the worry levels of the rural household heads interviewed are well founded. Vulnerability-targeted or untargeted, long-term and predictable social protection programs should help reduce the worries of the household heads. Hopefully, this would happen to the extent that it would liberate many children of uninsured families from the burden of having to negotiate their own preferences up against the need for them functioning as the household’s social risk management tools.

Why has not the past decade of policy interventions aimed at reducing children’s relocation in West Africa worked? Perhaps the causes of mobility are yet not well understood by policy makers, and perhaps the research community needs to step up its’ efforts to generate more exact knowledge, and to get existing knowledge across. If the results of the analysis in this article are indeed externally valid in the region, it provides a solid argument for the provision of social safety net designs. It should be stressed one more time that in this article, child mobility is seen as a multifaceted issue, and not a phenomenon that should be stopped indiscriminately. While many children who leave the parental home face great risks and suffer hardship, others do not. And among those who do, these are risks many are willing to take, and even hardships they are willing to suffer in order to gain the chance to get to a better place. Contrary to legal-sector interventions aimed to indiscriminately intercept child migrants, a social policy approach is likely to have a disproportional impact on the most vulnerable types of mobility, while continuing to allow the positive aspects of traditional child fostering practices to exist without interference.

REFERENCES

- Ainsworth, M. (1992). *Economic aspects of child fostering in Cote d'Ivoire*. Washington, DC: World Bank, LSMS working paper no 92.
- Ainsworth, M. (1996). Economic aspects of child fostering in Cote d'Ivoire. *Research in Population Economics*, 8, 25–62.
- Akresh, R. (2003). *Risk, network quality and family structure: Child fostering decisions in Burkina Faso*. Department of Economics, University of Illinois.
- Akresh, R. (2009). Flexibility of household structure: Child fostering decisions in Burkina Faso. *Journal of Human Resources*, 44(4), 976–997.
- Bledsoe, C. (1990). No success without struggle: social mobility and hardship for Sierra Leone children. *Man (N.S.)*, 25, 70–88.
- Costa, P. T., Jr., & McCrae, R. R. (1992). *Revised NEO personality inventory (NEO-PI-R) and NEO Five-Factor Inventory (NEO-FFI) manual*. Odessa, FL: Psychological Assessment Resources.
- De Lange, A. (2006). *Going to Komienga – A study on child labour migration and trafficking in Burkina Faso's South-Eastern cotton sector*. Amsterdam: Report published by IREWOC and supported by Plan.
- Dufflo, E. (2003). Grandmothers and granddaughters: Old-age pensions and intrahousehold allocation in South Africa. *World Bank Economic Review*, 17(1), 1–25.
- Edmonds, E. (2006). Child labor and schooling responses to anticipated income in South Africa. *Journal of Development Economics*, 82(2), 386–414, Elsevier.
- Edmonds, E., & Sallinger, P. (2008). Economic influences on child migration decisions: Evidence from Bihar and Uttar Pradesh (with P. Salinger). *Indian Growth and Development Review*, 1(1), 32–56.
- Edmonds, E., & Shrestha, M. (2009). *Children's work and independent child migration, a critical review* Innocenti working paper, IWP-2009-19. Florence.
- Edmonds, E., & Shrestha, M. (2012). Independent child labor migrants. In A. Constant, & K. Zimmermann (Eds.), *International handbook of the economics of migration*. Edward Elgar Press.
- Eloundou-Enyegue, P. M., & Shapiro, D. (2005). "Confiage d'Enfants et Nivèlement des Inégalités Scolaires au Cameroun. *Cahiers Québécois de Démographie*, 34(1), 47–75.
- Filmer, D., & Scott, K. (2008). *Assessing asset indices* World Bank policy research paper 4605. Washington, DC: The World Bank.
- Goody, E. (1982). *Parenthood and social reproduction: Fostering and occupational roles in West Africa*. Cambridge: Cambridge University Press.
- Hashim, I., & Thorsen, D. (2011). *Child migration in Africa*. Zed Books.
- Holzmann, R., & Jørgensen, S. (2000). *Social risk management: A new conceptual framework for social protection and beyond*. Washington, DC: Social protection discussion paper series no. 9904.
- Hoogeveen, J., Tesliuc, E., & Vakis, R. (2005). *A guide to the analysis of risk, vulnerability and vulnerable groups* Working paper. Washington DC: Social Protection Unit, The World Bank.
- Inglehart, R. (1971). The silent revolution in post-industrial societies. *American Political Science Review*, 65, 991–1017, ISSN 1537-5943.
- Isiugo-Abanihe, U. C. (1985). Child fosterage in West-Africa. *Population and Development Review*, 11(1), 53–73.
- Iversen, V. (2002a). Autonomy in child labour migrants. *World Development*, 30(5), 817–834.
- Iversen, V. (2002b). *Idiosyncrasies of child labour in peasant households in sub-Saharan Africa: Anthropological observations and the economics of labour obligations and exchange* (Unpublished).
- Kandiwa, V., & Eloundou-Enyegue, P. M. (2008). Evolution de la Concentration du Confiage en Afrique: l'Exemple du Ghana et de la Zambie. *Sociologie et Sociétés*, XXXIX(2), 101–118.
- Kielland, A. (2008). *Child labour migration in Benin; Incentive, constraint or agency?*. Bonn: VDM Verlag.
- Kielland, A. (2009). Child mobility as household risk management. *Forum for Development Studies*, No 2-2009, Oslo.
- Kielland, A., & Kebede, T. A. (in press). *Drought vulnerability and child mobility in rural Senegal*. PopPov presentation of the article.
- Kielland, A., & Bjørkhaug, I. (2009). Child mobility in West Africa: Strategy, poverty or crime?. *Forum for Development Studies*, No 2-2009, Oslo.
- Kielland, A., & Gaye, I. (2010). *Climate change and the role of children in household risk management strategies in rural Senegal*. Fafo report to the World Bank, Washington DC.
- Kielland, A., & Hounsounou, G. (2012). *After the shock: Mobility, inequality and social exclusion child mobility and domestic services as coping and strategy: What implications for social protection interventions in rural Benin?* Fafo report to the World Bank.
- Kielland, A., & Ouensavi, R. (2000). *Le phénomène des enfants travailleurs migrants du Bénin*. Washington, DC: The World Bank/Carrefour d'Ecoute et d'Orientation.
- Kielland, A., & Sanogo, I. (2002). *Burkina Faso: Migration de la Main d'ouvre Infantile d'origine Rurale, Ampleur et Facteurs Determinants*. Washington, DC: The World Bank/Terre des Hommes.
- Last, M. (2000). Children and the experience of violence: Contrasting cultures of punishment in Northern Nigeria. *Africa*, 70(3), 359–39.
- Lilleør, H. B. (2008a). *Can future uncertainty keep children out of school?* CAM working paper no 2008-06.
- Lilleør, H. B. (2008b). *Human capital diversification within the household: Findings from rural Tanzania* CAM working paper no 2008-04.
- Olanian, O. (2011). *The determinants of child schooling in Nigeria* AERC research paper 217. Nairobi: African Economic Research Consortium, URL: <https://www.researchgate.net/publication/254383657_The_Determinants_of_Child_Schooling_in_Nigeria>.
- Sadoulet, E., Finan, F., de Janvry, A., & Vakis, R. (2004). *Can conditional cash transfer programs improve social risk management? Lessons for education and child labour outcomes*. Washington, DC: World Bank, SP discussion paper no. 0420.
- Schwartz, S. H. (2012). *An overview of the Schwartz theory of basic values* Online readings in psychology and culture, Unit 2 theoretical and methodological issues, subunit 1 conceptual issues in psychology and culture, article 11. International Association for Cross-Cultural Psychology.
- Serra, R. (2000). *A theoretical framework for child fostering arrangements in Sub-Saharan Africa* (unpublished). URL: <http://www.econ.unian.it/ricerca/convegna/atti_cnr/serra.pdf> Accessed 30.06.2011.
- Serra, R. (2009). Child fostering in Africa: When labor and schooling motives may coexist. *Journal of Development Economics*, 88(1), 157–170.
- Sundt, E. (1867–68). *Om Husfliden i Norge*. Kristiania, J Chr. Ubelstedts Bogtryggeri. Oslo.
- Whitehead, A., Hashim, I., & Iversen, V. (2005). *Child migration, child agency and intergenerational relations in Africa and South Asia*. Working paper.
- World Values Surveys. URL: <<http://www.worldvaluessurvey.org/wvs.jsp>>.