The Impact of Forced Migration on Marital Life in Chad[1]

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Abstract. Civil war in Chad in the 1990s had a major impact on the family life of large numbers of people who were internally displaced or sought refuge in exile. This article examines the effect of these forced migrations on marriage, in particular the transition from monogamy to divorce or bigamy. It analyses data collected in N'Djamena in 1993–1994. The higher risk of divorce among internally displaced persons compared to that of refugees suggests that they were more vulnerable from a demographic perspective, and that their marital survival strategies may have been less successful. It is suggested that aid agencies should increase assistance given to internally displaced people because they are more at risk.

Key words: Chad, nuptiality, forced migration, refugee, internally displaced persons

Résumé. Dans les années 1990, la guerre civile tchadienne a fortement pesé sur la vie familiale d'un grand nombre de personnes qui ont été déplacées à l'intérieur du pays ou ont dû chercher refuge à l'extérieur. Cet article traite de l'effet de ces migrations forcées sur le mariage, et plus particulièrement sur le passage de la monogamie au divorce ou à la bigamie. Il repose sur l'analyse de données recueillies à N'Djamena en 1993–1994. Le risque de divorce plus élevé chez les personnes déplacées comparé à celui des réfugiés montre une plus grande vulnérabilité des premières d'un point de vue démographique avec davantage d'échecs dans leurs stratégies de survie matrimoniale. Les organisations humanitaires devraient accroître l'aide apportée aux personnes déplacées à l'intérieur même des pays car ces catégories de population sont particulièrement à risque.

Mots clés: Tchad, nuptialité, migration forcée, réfugié, personnes déplacées

1. Introduction

This article is an attempt to assess the impact of forced migration on marriage of Chadians. The history of Chad[2] has been marked by the slave trade, coloniz-

ation, conflicts and wars that have caused a high degree of internal displacement and refugee movement. The etiology of forced migrations in Chad is varied. The militaristic empires[3] developed in the Sahel around 900 A.D. used the 'stateless societies' settled in the southern zone as a source of slaves for the trade they conducted across the Sahara until the middle of the 19th century (Collier, 1990, p. 5). In the 10th century the forces of Islam invaded the area. In 1889, France occupied southern Chad in a fight against Rabih Fadlallah, who continued to conduct slave raids until he was finally defeated in 1900. The people of Chad then resisted the French colonial administration, with the country finally achieving independence in 1960.

From the 1960s to the 1990s, periodic civil wars raged, various sides being supported by a number of international players (France, Libya, USA, etc.). Drought and famine accentuated forced migration. Post-colonial state policy that promoted *monopartisme*, i.e., a one-party state, provoked frequent riots and outright revolt on the part of various ethnic groups, who demanded a more balanced regional representation in government. First President Tombalbaye was assassinated during a coup in April 1975, and replaced by a military Government.[4] In February 1979, the northern rebels' fight against the central government became a nation-wide, north-south civil war, which ended in November 1979. Following this, the northern Muslim leaders dominated the country.[5] In March 1980, a second war began, this time between various northern factions, attracting international involvement on the part of Libya and France. They remained involved in the conflict from June 1982 to December 1990, during which period the dictatorship of Hissène Habré resulted in the torture and massacre of thousands of Chadians. After a coup led by Idriss Deby in December 1990, Chad began a transition to democracy. However, civil war continued in parts of the country where warring factions were still active.

Indeed, the population of Chad has reproduced itself in a situation of ongoing socio-political crisis over many centuries. This study examines whether marital longevity was affected by forced migrations caused by the turmoil. It compares the risk of transition from monogamy to divorce and bigamy according to migratory status. Whereas most international aid has been oriented to respond to the needs of refugees, this article argues that internally displaced persons are more vulnerable from a demographic perspective.[6] It also emphasizes the need to differentiate between short-term and long-term effects in order to gain a better understanding of the impact of forced migration on marital patterns. The research is based on 328 male socio-demographic life histories collected during a survey conducted in Chad in 1993–1994.

1.1. WHO IS A REFUGEE?

The evolution of the concept of 'refugee' in the social sciences is firmly rooted in geo-political history. Existing legal definitions were built into the instruments developed to identify persons eligible for international assistance and protection.

The concept as it applies to Africa has its origins in three instruments: the United Nations (UN) Convention on the Status of Refugees (1951); the UN Protocol on the Status of Refugees (1967); and the OAU (Organization of African Unity) Convention governing specific aspects of refugee problems in Africa (1969).

According to the UN definition, a refugee is someone *who has fled his country* because of persecution on the basis of race, religion, nationality, political opinions, or affiliation with a specific social group. The insistence on this territorial criterion denies the existence of socio-economic and legal barriers that could make it impossible to escape and apply for international protection (Hathaway, 1991, p. 29). According to Hathaway (1991, pp. 30–31), the Convention was written in the context of limited international resources, and its purpose was to define the scope of refugee law in a realistic, workable way. As the authority of the international community over human rights increased, the reach of refugee law has expanded (Hathaway, 1991, p. 32). Over the years, in response to practical imperatives, the UNHCR has become increasingly involved with internally displaced persons, which means that the entire refugee system has broadened in scope (Roberts, 1998, p. 381).

During the 1990s, the UNHCR became more holistic in its approach. According to a recent study, almost half of the people assisted by the UNHCR are non-Convention refugees (Crisp, 1999, p. 8), since its mandate has now been extended to other vulnerable groups. People of concern to UNHCR are considered to be within the competence of the UNHCR according to international refugee law, i.e., refugee instruments – the UNHCR Statute and General Assembly Resolutions (International Refugee Documentation Network, 1989, p. 36).

Though the UNHCR's assistance framework has evolved, official definitions have remained the same. However, interpretation of the above documents and the goodwill of the UN General Assembly have reinforced UNHCR's concept of refugee (Crépeau, 1995, p. 99). Still, international refugee law is not applicable to internally displaced persons, because their situation is considered an internal matter that falls within the purview of sovereignty.

Some regional refugee instruments have been adopted by states or intergovernmental organizations in a particular geographical area to govern specific aspects of refugee problems in the region (International Refugee Documentation Network, 1989, p. 35). The OAU's Convention broadened the scope of the UN definition – whose cornerstone was persecution – stating that "the term 'refugee' shall also apply to every person who, owing to external aggression, occupation, foreign domination, or events seriously disturbing public order in either part or the whole of his country of origin or nationality, is compelled to leave his place of habitual residence in order to seek refuge in another place outside his country of origin or nationality" (UNHCR, 1990, p. 194). This definition recognizes that the relationship between an individual and the state can be severed in diverse ways, including persecution. Persecution is just one manifestation of the absence of

physical security, while indeed other threats to physical security exist as well (Shacknove, 1985, p. 279).

This study is based on an extended definition of refugee that covers both internally displaced persons as well as refugees. It also takes into account forced migrations caused by natural disasters that have often been complicated by human actions. What these groups of forced migrants have in common is the absence of effective protection from their state of origin (Crépeau, 1995, p. 102). This puts their physical integrity and lives into danger, as well as their enjoyment of basic rights and freedoms.

Though of central importance to this study, estimates of the total number of refugees caused by the Chadian civil war seem to vary. Their limitations are based on the nature and interests of their sources, and the organizations responsible for collecting the data. The first general population census of 1993 showed that 175,275 people were returning migrants, of whom 43.9% had returned from Cameroon, 22.8% from Sudan, 14.3% from Nigeria, 13.5% from the Central African Republic, and 5.5% from other African countries (République du Tchad, 1994, p. 57; 1995, p. 85). However, it is not known whether many of these migrants were indeed refugees, since the census did not ask any questions about the reasons for migration. Furthermore, Chadians who were still living in exile for political reasons at the time of the census were excluded from the count.

The United States Committee for Refugees (USCR) states that its data are not absolute, but rather an estimate and a relative indicator of impact. Annual comparisons are complex because estimates are often made to include large groups (USCR, World Refugee Survey, 1980). Furthermore, the 1979–1994 estimates were based on the year before and on information available just before the printing of the annual report.

Table 1 presents the USCR's estimates of the numbers of Chadian refugees by country of asylum. Though these people were counted as refugees because they were presumably in need of assistance or protection, the duration of their status remains unknown, since they may have been in exile for many years. Therefore, the USCR does not estimate the number of refuge migrations, but the number of persons in a refugee situation during an annual period. An indicator suggested by Laliberté (1999) to measure the number of refugees from 1979 to 1994 takes this factor into account. It is based on the total number of 'person-years' spent in need of protection or assistance (1,114,704).[7] Another indicator (Laliberté, 1999) is the total annual average number of persons (74,314) who were in need of international protection or assistance.[8] Both of these figures likely underestimate the phenomenon, since they only consider refugees who are under USCR responsibility. Moreover, they were derived from annual data that were not gathered at the same time of the year, and do not take into account the above-mentioned factors.

The number of refugees was higher at the beginning of the 1980 civil war and after the massacres of the southern populations (Table I). The figures varied from 396,000 in 1980, to 78,265 in 1981, 176,300 in 1984–85, 122,719 in 1986, and

Table 1. Number of Chadian refugees in need of international protection or assistance, by asylum country (1974–1994) (USCR) and total number of persons displaced in Chad according to the USCR[1,11]

#	Reference	Date	Benin	Burkina Faso	Cameroon	Central African Rep.	Congo	Ivory Coast	Egypt[10]	Ghana	Niger	Nigeria	Sudan[5,9]	Total	Displaced Persons
1.	1980 WRS[2]	06/79 or 01/01/80	**3,000**								**3,000**		**3,000**	**9,000**[3]	
2.	1981 WRS[4]	1981 prior April			266,000	7,000					110,000		13,000	396,000	
3.	1982 WRS	1981			20,000	5,000					40,000		**13,265**	**78,265**	
4.	1983 WRS[6]	06/82			1,000	5,600			**300**		5,500	400	5,000	**17,800**	46,000
5.	1984 WRS[7]	1983 and 1st half 1984			4,000	7,000						4,000	1,000	16,000	50,000
6.	1985 WRS[8]	1984 and 1st half 1985	800		13,500	37,000				119		4,000	121,000	176,000	150,000–500,000
7.	1986 WRS	1986	4,000		5,000	15,000	700			120		4,900	93,000	122,719	150,000–500,000
8.	1987 WRS	1987	3,700		7,000	5,000	700					4,000	45,000	65,520	150,000–300,000
9.	1988 WRS	1988	3,000	200	4,400	900	1,500	100				4,200	25,000	39,300	150,000–300,000
10.	1989 WRS	1989	900	300	4,000	2,600	1,500					4,000	24,100	37,400	150,000–300,000
11.	1991 WRS	12/31/90	800	300	6,500	1,200	2,300				800	3,300	20,000	35,200	
12.	1992 WRS	12/31/91	100	200	6,500	1,000	2,300				1,400	3,300	20,000	34,800	
13.	1993 WRS	12/31/92	200		1,100	1,000	2,300				3,600	1,300	14,500	24,000	
14.	1994 WRS	12/31/93			2,000	18,000	2,000				3,000	1,400	7,000	33,400	
15.	1995 WRS	12/31/94			2,000	17,000	2,000				3,000	1,000	4,000	29,000	

Source: U.S. Committee for Refugees. *World Refugee Survey* (WRS). New York/Washington, 1980 to 1995.
[1] The USCR bases their estimates on multiple sources, including those provided to the UNHCR by asylum countries' governments.
[2] 1.: Data available January 1, 1980, or last estimate available during the second half of 1979.
[3] 1.: More than 9,000 Chadians were refugees in Cameroon, Niger, and Sudan. We arbitrarily distributed them among these countries.
[4] 2.: Estimated reported by the governments at the conference on assistance to refugees held in April 1981. The numbers apply to 1980 and the beginning of 1981.
[5] Sudan: Chadian, Ethiopian, Ugandan, and Zairian refugees were put into the same category in 2 and 3.
In 2, we inferred the exact number of Chadians who were refugees in Sudan by using the total number of Chadians who were refugees in all asylum countries.
In 3, we applied the proportion of the group composed of Chadians in 2.
[6] 4.: Most of the estimates reflect the situation reported by mid-1982.
[7] 5.: As a result of the reporting mechanisms used by the groups consulted by the USCR, the data were collected during a 9-month period in 1983 and during the first half of 1984.
[8] 6.: The data are for 1984 and the first half of 1985.
[9] Sudan: in 1986, 1990, and 1992 to 1994, the number of Chadian refugees significantly varied by source.
[10] Egypt: In 1983, Chadian refugees were mixed together with Ethiopian, Armenian, and Afghan ones (1,200). We distributed them arbitrarily among these groups.
[11] Bold characters are used when the estimation is ours.

65,520 in 1987. The main countries of asylum were Cameroon, Sudan, and Nigeria. In 1980, Cameroon and Nigeria received the largest number of Chadian refugees in their recent history, 266,000 and 100,000 respectively, while the Central African Republic received its largest numbers of Chadian refugees in 1984–1985. West African countries Niger, Benin, Burkina Faso, Ghana, and Ivory Coast as well as Congo and Egypt, also accepted Chadian refugees in the 1980s.

In addition, according to the USCR, large numbers of Chadians sought refuge elsewhere in their own country during this period. Approximately 46,000 people were internally displaced in June 1982 and 50,000 in 1983. In the late 1980s, their numbers varied from 150,000 to 300,000. However, as indicated above, these figures probably underestimate the phenomenon. Various repatriations were formally arranged during the 1980s and 1990s; at least 150,000 people returned in 1981–1982 and 113,600 in 1982–1984.

2. Migration and Marriage – A Theoretical Framework

Refugee migration and internal displacement are survival strategies for actors looking for protection. It is likely that social changes resulting from these many forced migrations had an impact on nuptial attitudes and behaviours. Since the relationship between migration and marital behaviours had not been explored in-depth in the literature, we designed an analytical model inspired by the demographic regime theory (see Figure 1).

The demographic regime is a social subsystem that is responsible for human production and reproduction. It includes all demographic units that add or remove members from a society. It is a system of multiple entries (births, marriages, and immigration) and exits (deaths, divorces, and emigration). These events – births, nuptial events, mortality, and migration – each represent a social phenomenon, as they are rooted in specific social relations. However, these apparently separate phenomena should be considered as parts of a whole. We cannot understand one without the others, and without understanding the social processes that bring them together (Gregory and Piché, 1985, p. 76).

With refugee migration at its core, the goal of this study is to determine which factors influenced the future of first marital unions when social relationships are set in the context of a socio-political crisis. It is predicted that the demographic behaviours of people who seek refuge will be different from those of people who do not move for political/military reasons. Retrospective, longitudinal study would indicate whether a first union is maintained, severed, or becomes bigamous.[9]

The model expects that forced migration will have a direct effect on marital behaviour, but will also operate through fertility and offspring mortality differentials. Other variables of control have also been examined by our study, such as age at time of marriage, economic activity, generation, ethnic group, religion, and education.
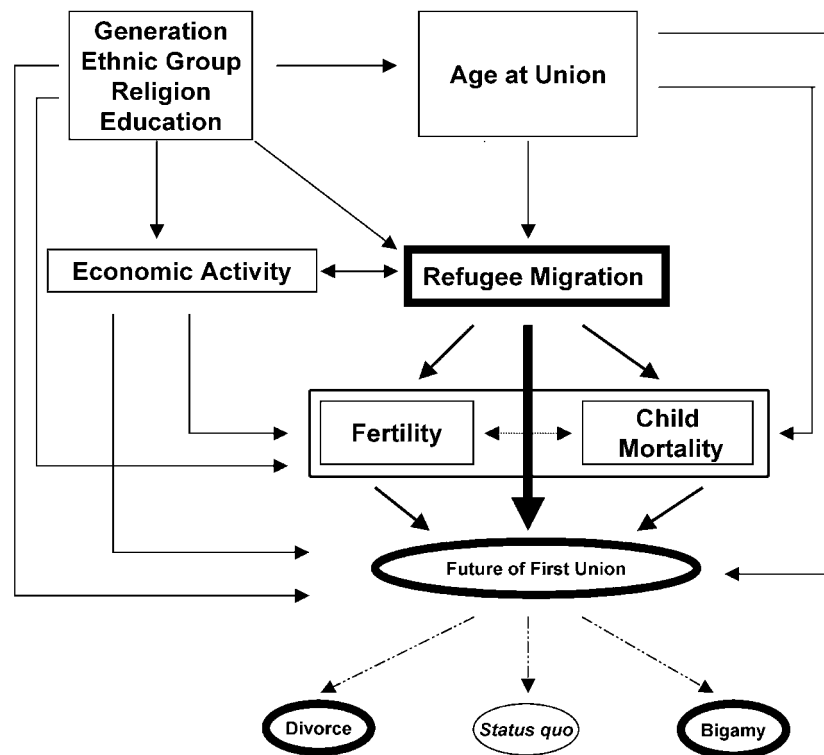
Figure 1. Analytical frame of male marital behaviour during socio-political turmoil.

The first hypothesis is that forced migration will increase the risk of separation and divorce. Williams (1990, p. 102) cites research that shows that the fabric of a refugee family unit is dramatically altered, both in the actual numbers of the family and in the sense of how survivors view the notion of 'family'. Processes of exile and return disturb family life of Chadian refugees (Passang et al., 1991, p. 59). Migration itineraries often differ; though women, children, and the elderly are the most vulnerable groups, men are often the first to leave because soldiers on both sides would have either slaughtered or recruited them. Moreover, Chadians who take refuge outside their country usually wait for a sustainable settlement opportunity to bring their family (HCR, 1986, p. 9). Many couples are forced to manage their relationship in a conflicted socio-political context while they live in a multi-residential space.

Polygamy and particularly bigamy have been extensively studied by large numbers of researchers because it is an institution in many African societies. Both anthropologists and demographers have researched the sexual and reproductive determinants of polygamy (Attolou, 1979; Locoh, 1985; Donadjé, 1992; Antoine et al., 1998). The economic model of Boserup (1970, 1990) dominates the literature with reference to polygamy (Meillassoux, 1975; Marcoux and Piché, 1996).

More than a simple custom, it is a complex mechanism that brings order to the 'marketplace' of marriage and the structure of family (Pison, 1986, p. 93). *The second hypothesis of our research is that the risk of bigamy will be increased by forced migration.* Other studies have shown that polygamy is a frequent response to labour migration; men establish simultaneous unions in the different areas in which they live and work in order to resolve the disruption of family life (Locoh, 1988, p. 57; Locoh, 1991, p. 287; Klissou, 1994, p. 121). This behaviour would also likely apply to males who escape to ensure their productive and reproductive roles despite the ongoing turmoil. During the period of refuge, the economic contribution of another wife could protect the new household and help reach the target number of offspring.

3. Data Source and Methodology

Data for the study have been taken from the *Enquête Migration et Nuptialité, N'Djamena, 1994*, a survey carried out in Chad (Laliberté, 1999).[10] The survey comprised a random sample of 500 households in Chagoua and Farcha, two districts in N'Djamena, the nation's capital. They were chosen because their inhabitants seemed to have a wide variety of socio-demographic characteristics. However, the sub-sample for the study was limited to 328 male heads of households who were not bachelors and were at least 25 years of age, the mean age of marriage in the 1993 census. Preliminary data from the 1993 population census were used to develop a sample frame. Since the sample is representative of the population and its size is over 40, data are adequate for the planned analyses (sufficient power) and the estimates and tests are correct.

It was impossible to construct a sample of the male migrant population that would be representative in the usual sense of the word. However, at the very least, the sample design provided a heterogeneous sample of migratory life histories. Like other life history studies, the research focused on processes and not on instantaneous estimates. Table 2 provides a full description of the sample using the independent variables (fixed characteristics) and Table 3 shows the distribution of the sub-sample by history of refugee migration.[11] The number of people who had a history of being a refugee was smaller than that of those who had never experienced being a refugee. Therefore, standard errors and their significance levels were carefully examined to ensure that the sample size did not influence the statistical analysis.

Retrospective longitudinal samples are subject to selection by virtue of survival (Hoem, 1985). In our case, this means that our sample is made of people who did not die before the survey and managed or chose to live in the capital; those who died or were living elsewhere were excluded from the sample by design. The magnitude of the consequences of this selection bias is an empirical question; we cannot assess it directly. However, to the extent that violence is the common cause of the migration process that we are studying and of the death or ultimate

Table 2. Distribution of the sample by independent variables (fixed characteristics)

Variables	Categories	n	%
Generation	*(1900–49)*	122	37.2
	1950–59	115	35.1
	1960–69	91	27.7
Ethnic group	*(Sudanese)*	223	68.0
	Sahelian-Saharan	91	27.7
	Other ethnic group	10	3.1
	No answer	4	1.2
Religion	*(Animist)*	10	3.1
	Christian	193	58.8
	Muslim	124	37.8
	No response	1	0.0
Education	*(No formal education)*	82	25.0
	Koran	21	6.4
	Primary	68	20.7
	Secondary	96	29.3
	High or vocat./technical	55	16.8
	No response	6	1.8
Total		328	100.0

Source: Enquête Migration et Nuptialité, N'Djamena, 1994.
Note: The reference category is in parentheses and italics.

Table 3. Distribution of the sample by type of refugee migration

Refugee migration	%	n
No history of refugee migration	79.3	260
At least one refugee migration inside Chad	13.4	44
At least one refugee migration outside Chad	6.4	21
At least one refugee migration inside and one outside Chad	0.6	2
No response	0.3	1
Total	100	328

Source: Enquête Migration et Nuptialité, N'Djamena, 1994.
Notes: The migratory status of one respondent was known for only part of the period. This person was included in the regression analysis only where specific information was available; otherwise, he was excluded from the analysis.

displacement of the people who are excluded from our sample, it is reasonable to assume that the people who were excluded from the sample are those whose life was most affected by violence. This implies that we underestimate the effects of the most relevant of our independent variables. Although this is not a desirable consequence, it means that for substantive purpose, all effects that are significant in our models would probably have been significant but more important if we had used a better sample.

This study was based on the life history (event history) of the households' head, collected by means of a retrospective questionnaire focusing on migratory, economic, fertility, and nuptial events. Information about socio-demographic characteristics of household members was also collected through a transversal household questionnaire.[12] For the purposes of this study, migratory variables were established based on the broader definition of a refugee. In the survey conducted in N'Djamena, respondents were asked to list all the residential locations they had lived in since birth for at least six months. Because they were asked to explain why they had moved from one place to another, the researchers were able to distinguish refugee migrations and repatriations from work-related and socio-demographic migrations. The UNHCR and the OAU definitions were provided to the interviewers, who helped respondents determine whether they had had to move because they felt threatened by war or political turmoil. This procedure, combined with the question on the destination of migration, permitted the differentiation between internally displaced persons and people in exile.

Since this study was based on life histories, two migratory variables were constructed in order to examine the short-term and long-term impact of refuge. The first variable was the current migratory status of the respondent, who could be a: (1) refugee in his country – internally displaced in Chad (2) refugee in exile (3) returnee from exile (4) returnee from a refuge location in Chad (5) neither refugee nor returnee. The migratory status could vary during his life. The second variable referred to a history of refuge in or outside Chad, since this would likely influence the respondent's demographic profile over the long-term.

In the first step of the descriptive analysis, the cumulative risk was calculated from the beginning to the break-up of the first union, and from the first union to bigamy. The hazard rate is defined as the probability of change in marital status (variable Y) during the period, conditional to the marital events that had already happened.

In the second step, the Kaplan-Meier estimate was used to analyse the distribution of these two transitions through survival tables and graphs. The non-parametric nature of this survival function's estimator makes it possible to use it without formulating any hypothesis on the distribution of events over time. This method estimates the decrease in the proportion of the original group as if the interruption of the observation had been distributed randomly. The shape of the distribution can be summarized by a central trend, and dispersion indicators such as the median, the first and the third quartiles.

Table 4. Overall marital behaviour: Cumulative transition risks

Event	Probability
Maintaining the first union	25%
Becoming bigamous	40%
Experiencing a marital breakup	34%

Source: Enquête Migration et Nuptialité, N'Djamena, 1994.

The impact of forced migration on divorce and bigamy was estimated using the Cox semi-parametric proportional hazards model (Cox, 1972). This linear model uses a semi-parametric approach, in which the effects of the (possibly time-dependent) independent variables on the hazard rate are estimated in a regression-like fashion, whereas the baseline hazard function is not estimated as part of the model. The dependent variable is the instantaneous risk of a state change at time *t* conditional on survival until time *t* and on covariates. Blossfeld et al. (1989) and Petersen (1991) provide good introductions to the model; Blossfeld and Rohwer (2002) present numerous examples of its use in applied social science research.[13]

4. Results

The purpose of the analysis was to examine the determinants of divorce and bigamy, with a specific focus on forced migration. However, before studying the impact of migration on marriage, it is important to observe overall marital behaviour (Table 4). In calculating the cumulative transition risks, the descriptive analysis showed that the probability of maintaining the first union was lower (25%) than the risk of becoming bigamous (40%) or of experiencing a marital break-up (34%). Figure 2 indicates that approximately 12 years after first marriage, 25% of men had become bigamous, and after 26 years, 50% had become bigamous. Fourteen years after marriage, approximately 25% of unions had been dissolved either by death, separation or divorce. Sixteen years after first marriage, more than 25% of unions had ended in separation or divorce. As illustrated in Figure 2, the trend to bigamy occurred at a faster rate than that of divorce.

Analyses are conducted following the causal modeling approach (Rosenberg, 1968; Wunsch, 1988; Pearl, 2000). This strategy enables to assess the existence of direct and indirect effects of covariates as well as basic structures of causality (mediation, inhibition, conjoint influence, etc.) by comparing results from simple regression models and from nested multiple regression models. Tables 5 and 6 thus include results from simple regressions (reported in the first column), results from regressions including variables describing the modalities of the migration experience (Model 2), results from regressions including migration variables and fixed characteristics (Model 3), results from regressions adding variables describing
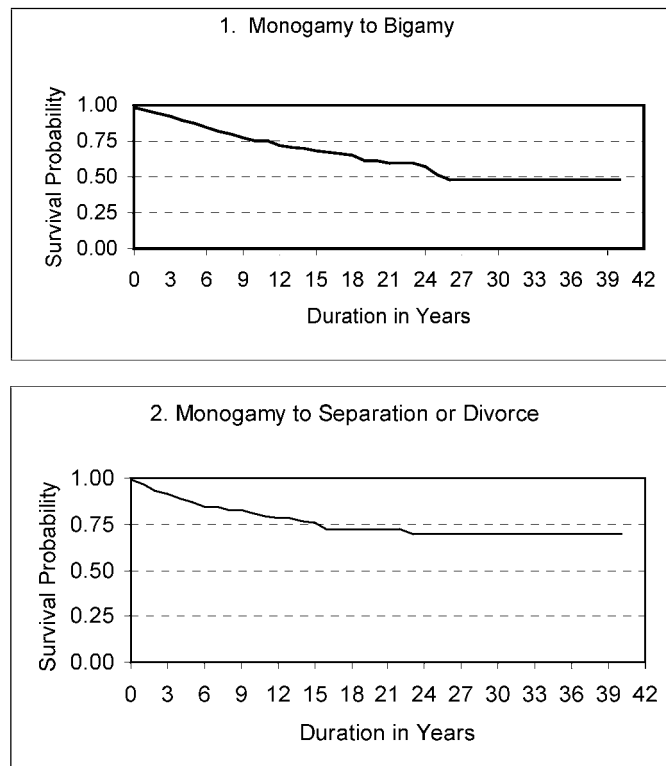
Figure 2. Kaplan-Meier survival curves.

economic activity (Model 4), results from regressions adding variables describing fertility and mortality of children (Model 5) and results from regressions adding age at marriage (Model 6).

4.1. DETERMINANTS OF FIRST DIVORCE

Our research aimed at verifying the hypothesis that forced migration increases the risk of divorce, since an environment marked by ongoing socio-political crises can affect how the partners work out their relationship. The analysis only takes into account those men who were in their first marriage, and considers time elapsed after migration before divorce or bigamy occur. Adult mortality (spouse) is considered as a censoring case.

4.1.1. *Higher Risk of Divorce for Internally Displaced Persons over the Long Term*

Two variables were developed to measure the effect of migration. Both included the cause of migration, departure and arrival locations (Chad, outside Chad). The first variable was related to the migratory status at a precise moment in time. The second

Table 5. Relative risk of independent variables explaining divorce[1]: All models[2,3,4] (n = 328)

Variables	One variable	Model 2	Model 3	Model 4	Model 5	Model 6
Migration:						
Immediate migratory status						
(Not refugee and not returnee)						
Refugee in Chad	0.72	0.76	0.84	0.92	0.90	1.04
Refugee outside Chad	. . .	. . .	. . .	. . .	. . .	. . .
"Returnee" from Chad	1.86	1.54	1.36	1.59	2.36	2.56
"Returnee" from outside Chad	0.41	0.40	0.45	0.46	0.39	0.44
History of refuge by destination[6]						
(No refuge)						
History of refuge in Chad	2.43*	2.19*	2.73**	2.77**	2.55*	1.92
History of refuge out of Chad	0.77	1.15	1.25	1.20	1.02	0.69
Hist. of refuge in and out of Chad	9.75**	10.16**	12.26**	12.90**	66.59***	77.16***
Fixed characteristics:						
Generation						
(1900–49) 1950–59	1.10		1.04	1.08	1.14	1.10
1960–69	2.45***		2.31**	2.31**	2.45**	1.95*
Religion						
(Animist etc.) Christian	0.25***		0.25***	0.27**	0.26**	0.24***
Muslim	0.28**		0.33*	0.35	0.30*	0.33
Education						
(No formal education)						
Koran	1.17		1.05	1.04	1.00	0.49
Primary	0.97		0.70	0.74	0.71	0.82
Secondary	1.12		0.80	0.78	0.68	0.79
High or vocat./technical	1.00		0.77	0.71	0.77	1.01
Ethnic group						
(Sudanese) Sahelian-Saharan	1.00		0.84	0.80	0.93	1.04
Other ethnic group	1.03		0.85	0.79	0.85	1.04
Economic activity[7]:						
(Employee)						
Independent or employer	1.21			1.17	1.30	1.46
Family-helper or apprentice	1.88			1.32	1.22	1.11
Unemployed	. . .			. . .	. . .	. . .
Student	1.69			1.31	1.21	1.14
Other	1.81			1.81	1.94	2.86*

Table 5. Continued

Variables	One variable	Model 2	Model 3	Model 4	Model 5	Model 6
Fertility and child mortality[5]:						
Cumul. of births	1.10				2.70***	1.27
(Cumul. of births)^2					0.76***	0.83**
Cumul. of deaths	1.60**				447.48	176.64
(Cumul. of deaths)^2					0.03	0.05
Cumul. of births ∗ Cumul. of deaths					0.08	0.16
Cumul. of births ∗ (Cumul. Of deaths)^2					3.33	2.71
(Cumul. of births)^2 ∗ Deaths					1.44*	1.31
(Cumul. of births)^2 ∗ (Cumul. Of deaths)^2					0.88	0.91
Age at marriage	0.88***					0.83***

Source: Enquête Migration et Nuptialité, N'Djaména, 1994.
[1] These union breakdowns were caused by a divorce or separation without prior polygamy.
[2] Cox semi-parametric proportional hazards model – levels of significance: *10%, **5%, ***1%.
[3] The category of reference is in parenthesis and italics.
[4] …: infinitesimal value.
[5] The coefficient of mortality and fertility variables were not directly explained in Models 5 and 6.
[6] The coefficient of people that were refugees in and out of Chad is suspect due to the small numbers (n = 2).
[7] Although economic activity 'other' is significant in Model 6, the coefficient is suspect due to small numbers (pensioners, retired and disabled persons).

was based on the assumption that being a refugee at a precise moment would have a long-term impact on family life. Its value was 0, but became 1 after a person had been a refugee for the first time. Table 5 shows that the short-term effect of forced migration was not significant. In contrast, over the long term, migration did indeed have an effect on marital life. The models also shed light on the differences between the long-term impact of internal and external forced migrations. While the living conditions of migrants in exile did not affect their marital patterns, internally displaced persons were more vulnerable, as shown in Models 1 to 5. The long-term risk of breakdown among internally displaced persons was almost three times higher than that of those who had never fled (5% significance level). The next sections will show if the effect of migration remains after we have introduced the other variables in the regression models. In order to achieve this purpose, and because this study uses the concept of demographic regime, we will also briefly comment on the effect of other independent variables on the dependant variable, and on the relationship between forced migration and future of marriage.

Table 6. Relative risk of independent variables explaining bigamy[1]: All models[2,3,4] (n = 328)

Variables	One variable	Model 2	Model 3	Model 4	Model 5	Model 6
Migration:						
Immediate migratory status						
(Not refugee and not returnee)						
Refugee	1.20	1.19	1.09	1.06	1.12	1.23
Returnee	1.01	0.71	0.60	0.65	0.66	0.95
Experience of refuge by destination						
(No refuge)						
History of refuge in Chad	0.39	0.40	0.41	0.43	0.41	0.33
History of refuge out of Chad	1.76	2.19	2.55	2.40	2.26	1.43
Hist. of refuge in and out of Chad	. . .	. . .	. . .	. . .	. . .	. . .
Fixed characteristics:						
Generation						
(1900–49) 1950–59	0.57**		0.51**	0.54**	0.45***	0.41***
1960–69	1.18		1.05	1.09	0.98	0.68
Religion						
(Animist etc.) Christian	. . .		. . .	. . .	. . .	. . .
Muslim	. . .		. . .	. . .	. . .	. . .
Education						
(No formal education)						
Koran	1.09		1.15	1.17	0.97	0.40*
Primary	1.06		1.66	1.71	1.57	1.82
Secondary	1.21		2.00*	2.13*	1.74	2.08*
High or vocat./technical	1.23		2.02*	2.36*	2.38**	3.39***
Ethnic group						
(Sudanese) Sahelian-Saharan	1.05		2.70	2.52	3.26*	4.02**
Other ethnic group	0.78		2.07	1.97	2.23	2.53
Economic activity[6]:						
(Employee)						
Independent or Employer	1.16			1.33	1.53	1.68
Family helper or apprentice	1.11			1.68	1.08	0.94
Unemployed	0.50			0.55	0.49	0.54
Student	0.78			0.71	0.63	0.62
Other	1.83			1.78	2.12*	2.92**

Table 6. Continued

Variables	One variable	Model 2	Model 3	Model 4	Model 5	Model 6
Variable of fertility and child mortality[5]:						
Cumul. of births	1.16**				2.56***	1.38
(Cumul. of births)^2					0.87***	0.93*
Cumul. of deaths	1.43***				1.49	0.60
(Cumul. of deaths)^2					2.45	3.36
Cumul. of births $*$ Cumul of deaths					1.23	1.97
Cumul. of births $*$ (Cumul of deaths)^2					0.57	0.48
(Cumul. of births)^2 $*$ Deaths					0.96	0.90
(Cumul. of births)^2 $*$ (Cumul of deaths)^2					1.08	1.10
Age at marriage:	0.88***					0.84***

Source: Enquête Migration et Nuptialité, N'Djaména, 1994.
[1]First situation of bigamy.
[2]Cox semi-parametric proportional hazards model – levels of significance: *10%, **5%, ***1%.
[3]The category of reference is in parenthesis and italics.
[4]...: infinitesimal value.
[5]The coefficients of mortality and fertility variables were not directly explained in Models 5 and 6.
[6]Although economic activity 'other' is significant in Model 6, the coefficient is suspect due to small numbers (pensioners, retired and disabled persons).

4.1.2. *The Impact of Individual Characteristics and Economic Activity*

Table 5 shows that certain individual characteristics had an impact on the stability of the first union. The risk of breakdown in the younger generation (1960–69) was twice as high as that observed in the older one (1900–49). This generation married later partly in reaction to ongoing socio-political turmoil. When age at union was introduced into the regression in Model 6, the younger generation's coefficient decreased from 2.45 to 1.95, and the significance level increased from 5% to 10%. The turmoil and related forced migrations may have adversely affected younger couples that did not benefit from the support of their family network to help resolve marital problems, while their elders had had this support.

Additional analysis showed that the difference in risk between the generations was partly due to differences in their migratory histories. Younger husbands benefited from higher flexibility than older ones because their responsibilities were less onerous. Therefore, it was easier for them to leave without their nuclear family.

According to Model 6, unions formed by Christians were 76% more likely to survive than those formed by Animists. Though in some models the risk of divorce for Muslims was significantly higher than that for Animists, Model 6 demonstrates that this was largely due to differences in age at marriage. Models 4 to 6 illustrate that economic activity did not have a direct effect on marital life even if
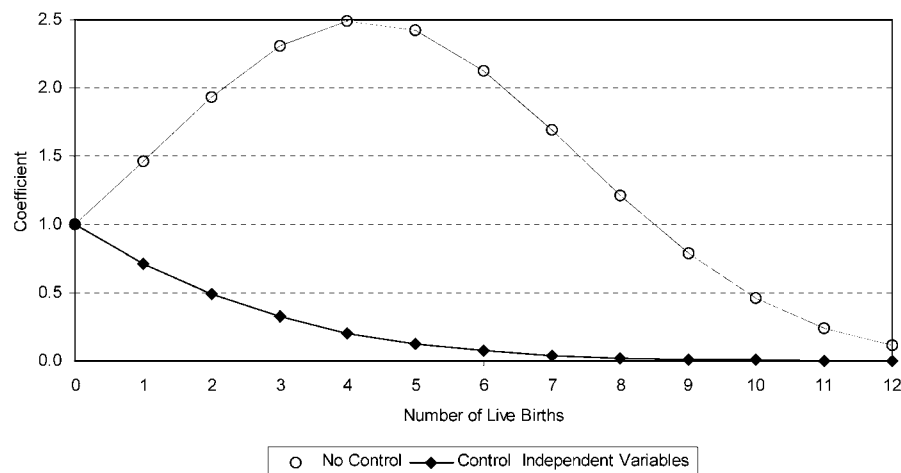
Figure 3. Relationship between fertility and marital breakdown.

the men might not have been capable of ensuring their traditionally predominant economic role in the household during the civil war.[14] Additional analysis also showed that the risk of divorce for Muslims was different because of their ethnic and educational characteristics.

Education variables were not significant, but their introduction into the regression – complementary analysis – had an effect on the association between divorce and the long-term effect of internal displacement, that was not anymore significant.[15] The effect of education on the marital patterns of internally displaced persons differed from that observed in people who did not flee. The change in the effect of migration on divorce after the introduction of education may be due to its direct impact on migration and divorce. However, education may partly explain the long-term effect of migration on divorce as an intermediate variable. This explanation is the most probable in a generalized war context.

4.1.3. *The Role of Fertility, Child Mortality and Age at Union*

According to the research design, the last steps of the analysis examined the demographic regime as a whole. We verified if there are specific reproductive attitudes and behaviours associated to forced migration.[16] Figure 3 shows that the overall effect of fertility was significant: after controlling for the other independent variables, when the number of live births increased, the risk of divorce decreased.

Even within a crisis context, men try to achieve their reproductive goals by increasing the number of births to compensate for child mortality. Since this strategy confirms the wife's capacity to reproduce and nurture the offspring, it contributes to stabilizing the union. The impact of child mortality varied according to the number of deaths. Figure 4 shows that the risk of divorce increased up to
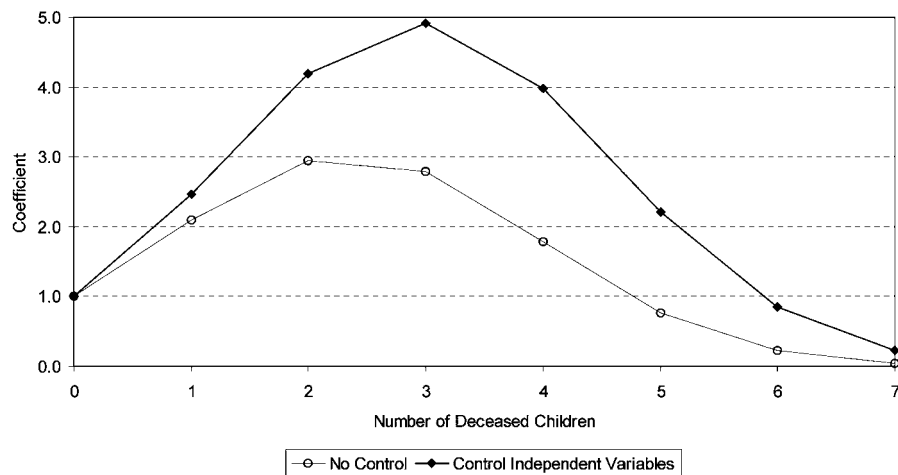
Figure 4. Relationship between child mortality and union rupture.

three deaths then decreased, probably due to the fact that the number of births had reached a level that compensated for the effect of the deaths on the attitude of the man towards his wife.[17]

Fertility and child mortality variables were jointly introduced into a regression that also controlled for individual characteristics and economic activity. The coefficient of the long-term effect of internal displacement decreased from 2.77 in Model 4 to 2.55 in Model 5, and its significance level increased from 5% to 10%. Fertility and child mortality obviously played a major role in the marital differences observed between internally displaced persons and other people. Further regressions showed that the influence of child mortality was greater than fertility, and that the effect of child mortality is conditional on fertility.

The sixth model in Table 5 comprised the introduction of age at marriage into the regression. The age at first marriage of men who had been previously internally displaced was partly responsible for the differences observed in the risk of divorce, since refugee migration was no longer significant when age at first marriage was introduced. The risk of divorce decreased by 17% a year, so divorce was more frequent among men who had married at a younger age. It seems clear that in a society that overvalues their contribution to the household, it is easier for mature men to succeed at marriage.

Therefore, there is a reduction in the effect of forced migration on divorce when fertility and mortality are taken into account in the regression. This effect disappears when age at marriage is controlled. In other words, it seems very probable that forced migration has an effect on divorce through the timing of marriage and mortality/fertility history. Because internally displaced persons were younger when they got married, their marriage was more fragile.
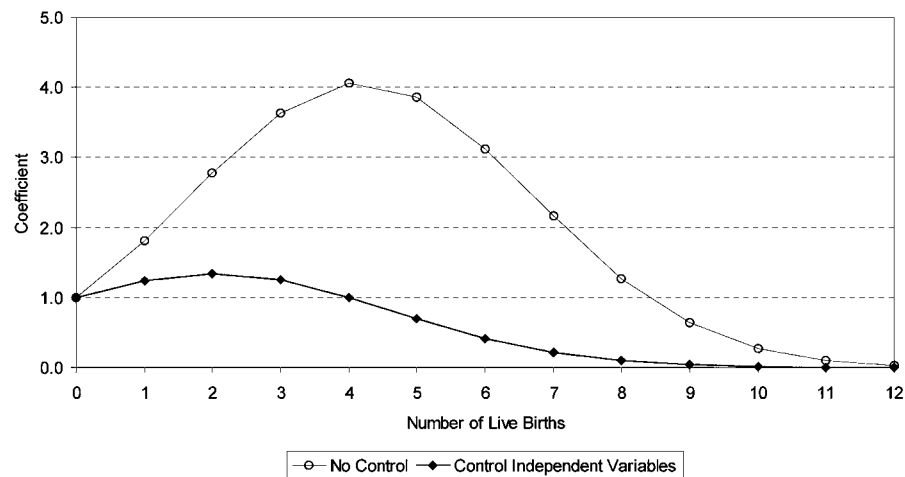
Figure 5. Relationship between fertility and bigamy.

4.2. THE DETERMINANTS OF BIGAMY

The second hypothesis tested by this study was that forced migration would increase the risk of bigamy.[18] Table 6 shows that contrary to this assumption neither refugee migration nor forced internally displacement significantly influenced the transition to bigamy. Indeed, only socio-demographic variables traditionally considered by other studies of polygamy proved to be significant.

Since the purpose of our research is not to analyse the relations between bigamy and different socio-demographic variables, we will not expend on these results. It was found that bigamy seemed to be a reproductive strategy to minimize the effect of the lack of fertility with the first wife.[19] Figure 5 shows that the risk varied according to the number of births. After controlling for the other variables, the risk of bigamy increased up to approximately two live births, then decreased. On the other hand, child mortality was not significant.[20] Age at union was the final and most determinant variable that was introduced into the analysis. The risk of bigamy dropped by 16% when age at marriage increased by one year. In other words, there was a lower chance of men practicing bigamy when they had married at an older age. Partly due to differences in migration patterns, education, and ethnic characteristics,[21] the risk of bigamy in the 1950–59 generation was 59% lower than that in the 1900–1949 generation. Also, the risk among Sahel ethnic groups was four times higher than that observed in the ethnic Sudanese.

5. Discussion and Conclusions

The history of Chad has been marked by internal and international military struggles that have resulted in waves of forced migrations and have negatively affected marital life. Individual attitudes and social relationships have been

adjusted as a response to socio-political turmoil. Our study reveals that the experience of forced internal migration had a long-term impact on marriage by increasing the risk of divorce. In contrast, neither refugee migration nor forced displacement significantly influenced the risk of bigamy, which varied according to the number of births, decreasing by 16% when age at marriage increased by one year.

Over the long-term, forced migration in Chad was associated with specific male attitudes and behaviours towards fertility and child mortality. The new reproductive patterns played a major role in the differences of divorce risk observed between internally displaced people and other groups. It was also observed that differences in the age at union of men who were previously internally displaced were in part associated with the differences in the risk of divorce. Further research should examine the relationship between refugee migration and fertility in more depth, using fertility as a dependent variable.

Chaos inside the country increased the vulnerability of displaced persons while living conditions outside did not dramatically affect marital patterns. It is likely that the constant state of crisis that plagued the country adversely affected productive and reproductive activities in Chad, abetted by crimes committed by soldiers on all sides against displaced persons. However, in contrast with internally displaced persons, Chadians who left their country as refugees were likely able to make better use of survival strategies because their immediate environment was more peaceful. "Ironically, for many persons on the brink of a disaster, refugee status is a privileged position. In contrast to other destitute people, the refugee is eligible for many forms of international assistance, including material relief, asylum, and permanent resettlement" (Shacknove, 1985, p. 276).

Moreover, in the long term, the experience gained in exile and the savings that may have accumulated probably facilitated the reintegration of refugees in Chad. Many returnees launch new economic initiatives and improved their work methods (Passang et al., 1991). Furthermore, returnees can use both informal solidarity networks and formal repatriation programs through the UNHCR and the CNAR to resettle.[22] This improvement in economic well-being was also observed in the case of ethnic Sudanese refugees who repatriated to Sudan from settlement camps or urban areas in Uganda (Rogge and Akol, 1989). Their situation was better than before exile and even better than that of people who had not gone into exile.

While assistance to refugees and displaced persons is generally provided during the period of refuge, the results suggest there would be positive effects of providing assistance after migration to reduce its long-term impact on people's life. Finally, since the breakdown of marital unions may be an indicator of demographic vulnerability, aid agencies should increase assistance given to internally displaced people because they are more at risk.

Notes

[1] This research was funded by the Social Sciences and Humanities Research Council of Canada, (SSRCC), the International Development Research Centre (IDRC), *the Programme population et développement au Sahel* (PPDS), the *Université de Montréal*, the *Centre d'Études et de recherche sur la population pour le développement* (CERPOD), and the Union for African Population Studies (UAPS).

[2] For more details on the history of Chad, see Bouquet (1982), Gali (1985), Dadi (1987), Collier (1990), and Golhor (1991).

[3] The most important were the Empires of Kanem-Borno, Bagirmi, and Wadai.

[4] Félix Malloum was the second President from April 1975 to March 1979.

[5] The GUNT (Government of the National Union for Transition) was led by Goukouni Oueddei from November 1979 to June 1982. Hissène Habré was President of Chad from June 1982 to December 1990, and Idriss Deby has been President since 1990.

[6] Assuming that the breakdown of marital unions is an indicator of demographic vulnerability.

[7] For details on this indicator and its limitations, see Laliberté (1999, pp. 20–22). It is the sum of the total annual number of refugees who, according to the USCR, are in need of protection and assistance.

[8] The second indicator is the result of the division of the first indicator by the number of years covered by this study (15).

[9] The research examined both formal – formalized by religious, traditional or legal ceremonies – and informal unions from the time the actors defined them as a union (when *they* considered it was a stable economic relationship between the two partners, not just a love affair).

[10] Training of the surveyors insisted on how to build trust and confidence to approach male respondents considering the sensitivity of the topic of divorce and bigamy.

[11] The coefficient of people who were refugees in and out of Chad is suspect due to the small numbers (n = 2). This category is not operational and has been created only for the purpose of exhaustiveness. We keep apart the two individuals who had at least one migration inside and one migration outside Chad to avoid them creating a bias in the effect of the other modalities of the variable.

[12] See Laliberté (1999) for the detailed questionnaires.

[13] Also see Allison (1995) and Lawless (1982).

[14] Although economic activity 'other' is significant in Model 6, the coefficient is suspect due to small numbers (pensioners, retired and disabled persons).

[15] Our questionnaire measured education as a qualitative variable and we represented it in our models as a set of 'dummy' variables. None of these variables is significant individually, but the overall test of the whole set of dummy variables shows that the effect of education is significant at 1%.

[16] Since preliminary analyses showed that fertility and mortality effects on divorce were not linear, we used an algebraic device to estimate whether their impact would decrease when the number of births increased and the number of child deaths decreased.

[17] A log-likelihood test showed that the impact of mortality was significant only in relation to fertility.

[18] Fertility and child mortality variables were designed using the methodology described in the previous section.

[19] The log-likelihood test – used again because fertility and mortality variables were based on multiple variables – showed that the overall effect of fertility was significant.

[20] The risk of bigamy seemed to increase exponentially when the number of child deaths decreased; however, we did not pursue this result because the log-likelihood test then indicated that the effect of child mortality was not significant.

[21] Although generation is still a significant variable after introduction of the other variables, its impact is lower.
[22] The Government of Chad established the *Comité national d'Accueil des Réfugiés* in June 1981.

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