

## Informal and formal union formation in three Central American countries

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### *Background and Research Question*

Informal unions, defined here as non-marital heterosexual partnerships, have historically played a dominant role in Central American family formation. In fact, during the early 1970s, approximately half of the unions in the region were informal (Castro-Martin 2002, Grossbard-Shechtman 1982). Among the six countries of Central America, Honduras, Nicaragua and Guatemala represent the high end of the informal union formation rate distribution while Costa Rica, with a 1973 informal union rate of 16.7%, falls to the bottom. These three countries also contain the least educated women in the region and are dominated by high fertility rates, low contraceptive use and high maternal/infant mortality (PRB 2007). Recent research has identified the significant contribution that the partner makes towards family determining socio-economic status and in women's reproductive health decisions and suggests that health education and outreach programs should target men and couples as well as women (Grace 2008, Ishida n.d., Carter 2004).

Despite these high rates and the significance of union status and partner approval in the reproductive health of women (Grace 2008, Becker 1999, Carter 2002, Carter 2004) informal union formation and its impact on Central American women's fertility, health, and empowerment has been largely ignored in the literature (De Vos 2000, Castro-Martin 2002). The aim of this research therefore, is to identify features of informal/formal union formation with attention to women's empowerment, fertility and contraceptive use of reproductive aged women in three Central American countries: Guatemala, Nicaragua and Honduras. The research addresses the following questions: 1) In general, do socio-economic or educational increases of Central American women correspond to increases in consensual union formations (as in SDT)?, and 2) Are there country-specific differences in union formation patterns that reflect country ethnicity and other socio-demographic characteristics?

The roots of these exceptionally high informal union rates are embedded deeply in the cultural history of the region. Spanish colonizers benefited from relaxed marriage formalities which enabled them to form a legal union with a native Central American woman but which did not conflict with traditional Catholic marriage beliefs and practices (Grossbard-Shechtman 1982, De Vos 2000). Current cultural systems, likely resulting from these historical practices, that encourage male social and household dominance (*machismo*) may also be a component of the cohabiting couples (Ishida n.d., Peñalosa 1968, Hardin 2002).

Recently, informal union formation patterns in this region of the world have changed. A decline in the ratio of informal to formal unions during the 1980s and early 1990s has since been followed by an increase during the late 1990s and early 21st century. Rates are still relatively high, however, with approximately 33%, 58% and 51% of all unions in Guatemala, Honduras and Nicaragua (respectively) identified as informal. In research examining family planning and reproductive health in Central America the trend has been to combine women involved in formal and informal unions into one category (De Broe & Hinde 2006, Carter 2004, Grace 2008). However, in the European and United States contexts, differences in the reproductive health and fertility decisions made within each type of union have been noteworthy and are often identified in Europe, as a component of the Second Demographic Transition (SDT) (Edin & Kefalas 2005, Gibson-Davis, Edin & McLanahan 2005, Lesthaeghe & Surkyn 2002, Van de Kaa 1987).

The historical Central American union formation trends, a decrease followed by a recent increase, are dramatically different from those found in Europe and the United States; the focus of the vast majority of union formation research. In industrialized country settings informal unions have been explored within the context of the Second Demographic Transition (primarily in reference to Scandinavian countries) and, in the United States and Eastern Europe, as a component of childbearing of poor, less-educated women. The SDT suggests that high and increasing rates of informal unions are positively correlated with female education and income and serve as an indication of attitudinal shifts towards family formation (Lesthaeghe & Neidert 2006, Sobotka, Zeman & Kantorová 19, Surkyn & Lesthaeghe 2004, Perelli-Harris & Gerber n.d.). In the United States, and, more recently in Eastern Europe, informal unions have been noted to occur primarily among lower income and less educated women and frequently result in unstable partnerships (Perelli-Harris & Gerber n.d., Wu & Wolfe 2001). At present, global and regional implications of the changing trends in union formation and type are unclear, and this research remains an important component of population science. The research reported in this paper contributes to this growing body of literature and will enhance the general understanding of contemporary family formation.

### *Data*

Data for this analysis come from the most recent Guatemalan (1998/99), Nicaraguan (2005), and Honduran (2001) Demographic and Healthy Surveys (DHS). The DHS is the largest ongoing survey in the world and is the primary source of data on population, health, and socio-economic indicators for developing nations. The survey data provide extensive information regarding individual and family health and cultural norms and the large sample size (more than 19,000 respondents in some cases) supports the use of the data to provide country-level indicators of health and development. Moreover, the 1998/99 Guatemala survey represents the first large-scale data collection of reproductive health information of inhabitants of the Petén, the northernmost region in Guatemala. Previously, this extremely impoverished population was excluded from surveys and was therefore largely un-represented in policy decisions. DHS calendar data as well as the traditional survey data containing information on time-invariant individual factors will be incorporated. DHS Calendar data

has been used in several studies to create retrospective birth, union, and contraceptive use histories (Leone & Hinde 2007, Curtis 1997) and can serve as a surrogate for longitudinal data. In combining the information from the calendar data with the survey data we can model an individual's entrance from single-status into a cohabiting union or a formal union.

### *Methods*

The basic research questions described above will be addressed using micro-demographic approaches. The micro-approach will treat union status (single, informal, formal) as competing risks that are conditional on time-variant factors – pre-union conception, overall parity and women's age – and time-invariant factors – education (at time of survey), ethnicity, and urban residence. The competing risk models will be fitted using the standard approach, a discrete-time multinomial logit hazard, and a more recent Generalized Dependent Risk model developed by Gordon (2002). The GDR model is estimated using MCMC and relaxes the assumption of independence among the risk of a single woman joining a formal or informal union. The comparison among the three countries will be evaluated first, by using separate models and assessing parameter estimates, and second, using a pooled model with country effects and interactions.

### *Research Implications*

Despite the large number of informal unions in Central America and the differences in health and economic outcomes of women who cohabit versus those who formally marry, this region has been excluded from much of the recent research on nuptiality trends. Changes in union formation patterns in other contexts have been linked to general increases in education and female autonomy and in other contexts as lifestyle characteristics of less educated women. Central America continues to experience increases in overall development and is generally assumed to be progressing through the demographic transition. It is not clear, however, if the high rates of informal unions are left-over from historical partnership practices or if they are largely formed by progressive sub-sections of the society. The impacts on fertility and reproductive health of different types of unions are also not clear. Understanding union formation patterns in this unique region of the world is important to understanding family dynamics and gender equity in Central America. Moreover, the research also contributes to a broader understanding of global family demography and the general complexities of union formation.

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