The Unexpected Rise of Cohabitation in the Philippines: Evidence for a Negative Educational Gradient

Bernice Kuang, University of Southampton
Brienna Perelli-Harris, University of Southampton
Sabu Padmadas, University of Southampton
The Unexpected Rise of Cohabitation in the Philippines: Evidence for a Negative Educational Gradient

Abstract

Background: As in Europe, Latin America, and parts of Asia, cohabitation has increased rapidly in the Philippines—from 5% of reproductive aged women in 1993 to over 14% in 2013. This increase is dramatic and surprising, especially given the slow change in other family behaviors, for example low divorce rates and continued high fertility, and also the persistent influence of the Catholic Church.

Objective: This paper focuses on the Philippines and investigates what background factors are associated with a single woman’s risk of transition into a cohabiting union, relative to a union that transitions to marriage. In doing so, we explore whether women who cohabit but do not marry differ systematically from women who do marry—with a focus on education level.

Methods: Using the 2013 National Demographic and Health Surveys, we use multinomial logistic regression in a discrete-time competing risk model to examine the risks of entering a cohabiting union relative to entering a union that transitions to marriage and associated factors among women of reproductive age.

Results: We find evidence that the risk of cohabitation is associated with lower education, suggesting that cohabitation is the resort of less advantaged subpopulations.

Conclusions: While cohabitation in the Philippines appears to be increasing in accordance with the Second Demographic Transition, context-specific cultural, social, and economic factors appear more important for understanding this new development.

Contribution: These findings provide crucial preliminary insights into family change in the Philippines, placing this demographic transition within the larger context of patterns worldwide. By shedding light on family change in a unique and underexplored Asian country, this study contributes to both demographic transition theory in a non-Western context and the evidence base for family policies and programs in the Philippines.
The Unexpected Rise of Cohabitation in the Philippines: Evidence for a Negative Educational Gradient

Introduction
Transitions in fertility, union formation, and family structure have been emerging worldwide. Among these transitions are postponement of marriage and childbearing, increased divorce, and a growing pattern of cohabitation, non-marital births, and voluntary childlessness, leading to a multitude of family forms. Many scholars frame these demographic changes as indicators of ideational change, concomitant with modernization and industrialization - a systematic shift referred to as a “Second Demographic Transition” (Lesthaeghe and van de Kaa 1986; Sobotka 2008; Lesthaeghe 2010). From this perspective, idea change is diffused through higher or prolonged education and more educated individuals are considered the forerunners of value change and liberalized attitudes toward new family behaviors, such as non-marital cohabitation. At the same time, a wide range of studies emphasize that understanding the growth of cohabitation depends on the local context (Heuveline and Timberlake 2004, Kiernan 2001). As cohabitation emerges as accepted family form, its continued uptake over time may reflect different context dependent social, economic or cultural forces. For example, individuals of different educational backgrounds may have different reasons for opting into or out of cohabitation, which reflects the context specific values, norms, or constraints encountered by different strata of society. Examining how education relates to cohabitation can shed preliminary insight on why and among whom this practice grows over time.

Cohabitation is well studied in Western countries but less is known about non-Western contexts, where cohabitation has been slower to emerge and data are often less comprehensive. Thus, the Western experience has influenced much of the theoretical debate. And while components of the SDT have emerged in East and Southeast Asia, such as decreased fertility, increases in cohabitation, and postponement of marriage, many of the related ideational changes have been less pronounced, suggesting the importance of examining social, cultural, and economic factors specific to the national context (Atoh, Kandiah et al. 2004, Raymo, Iwasawa et al. 2009, Raymo, Park et al. 2015).

Here we examine to what extent the Philippines is experiencing the SDT, focusing specifically on cohabitation. As a densely populated nation of approximately 100 million, the family demography of the Philippines deserves particular attention as it may have substantial impact on the future global landscape. Furthermore, the Philippines has a unique cultural, historical, political, and economic context and is undergoing rapid changes in union formation, specifically marked increases in the prevalence of cohabitation. However, unlike its neighboring countries and other SDT countries, the Philippines has not experienced either a precipitous drop in fertility or large scale postponement of marriage and childbearing. The policy environment is a distinct factor; while divorce is on the rise in some neighboring Asian countries, the Philippines is the only country in the world where divorce is illegal. Abortion is also illegal and family planning is not readily available throughout the country, especially for young unmarried women, which undoubtedly influences fertility and partnership. Finally, widespread international and internal migration has also led to the emergence of transnational families and mobile populations, introducing another layer of complexity.
To our knowledge, there are no existing cross-national studies of cohabitation that include the Philippines. Few recent studies of the Philippines examine union formation at a national level, and even fewer within the larger context of the SDT theory. Existing studies often fail to distinguish cohabiters from married people or cohabiters from single people, or else focus solely on youth. Because cohabitation has grown markedly in recent years, emerging as a prevalent family form, systematic social and economic differences between those who marry and those who cohabit without marrying need to be explored at all age groups. In particular, investigating how different educational subgroups- and thus subgroups with different resources, opportunities and priorities- differ in union formation is key to understanding among whom, how, and why cohabitation has increased over time.

Using the most recent Philippine National Demographic and Health Surveys (NDHS) data, we investigate union formation at the national level among all age groups and to identify correlates of cohabitation, relative to marriage, in order to gain insight into the meaning of cohabitation and why this family form has recently emerged. We will explore whether women who cohabit and do not marry differ systematically from women who do marry, particularly by education. Although the NDHS have important limitations in how union history data are collected, our analysis provides a novel and key analysis of cohabitation among a suitably large nationally representative sample of reproductive aged women. Our results will provide better understanding of family change in a unique and underexplored Asian context, contributing to both demographic transition theory and the evidence base for family policies and programs in the Philippines.

Background
Cohabitation as a family form
Cohabitation, or “living together in an intimate sexual relationship outside of marriage” (Kroeger and Smock 2014) is a growing practice all around the world and a key feature of the SDT. Van de Kaa and Lesthaeghe (1986) first linked such demographic change to the increasing importance of post-materialist “higher order needs,” individualism, secularization, and gender equity. Cohabitation typically lags behind the fertility transition and gains prevalence following changes such as postponement of marriage, postponement of childbearing and even divorce; scholars suggest this is because cohabitation most conspicuously challenges traditional prescribed religious and sexual mores.

Globally, there is diversity in the meaning of cohabitation and the life circumstances or social and policy environments that compel men and women to enter into such unions. Some couples practice cohabitation as a trial period before marriage, while others may see it as a substitute to marriage (Perelli-Harris and Sanchez-Gassen 2012). Countries support cohabitation to varying degrees through policies; thus the policy environment may either influence couples’ decisions to cohabit or alternately, policies may be in place in response to existing practices (Perelli-Harris and Gassen 2012). Cohabitation and nontraditional family forms may be adopted by the educated and liberal elite as forerunners of social change or they may be coping strategies of the less privileged in response to economic stress or instability (Perelli-Harris, Sigle-Rushton et al. 2010; McLanahan 2004). This is evident in the diversity of both practice and policy observed in Europe, Latin America, the United States, Canada, Australia and much of East Asia (Kroeger and Smock 2014; Atoh, Kandiah et al. 2004).
In Western Europe, cohabitation began as a practice among the liberal elite and today is widely practiced across social strata. Secularism and increased individualism over time coupled with the role of the state as a social safety net makes cohabitation a particularly popular family arrangement in some regions, such as western Europe and Nordic countries. In contrast, Southern European countries are more often characterized as having stronger family centric values and ties, and weaker social support from the state, leading to a slower emergence of cohabitation. Latin America is another region where dramatic increase in cohabitation has occurred in the last few decades, noted in particular by Esteve et al. (2012) as a “cohabitation boom.” Like the Philippines, parts of Latin America are largely Catholic and have a Spanish colonial legacy to contend with as well as historical, indigenous marriage systems distinct from European marriage and unconfined by Catholic sexual mores. While some forms of cohabitation are linked to older indigenous practices, other forms are thought to be evidence of modernization and liberalization.

Cohabitation has also begun to emerge in Asian countries such as Japan and China (Raymo, Iwasawa and Bumpass 2009; Yu and Xie 2015), despite the persistence of strong family ties and more rigid gender roles. In both cases, background characteristics remain key to understanding the role of cohabitation in family formation and cohabitation is sometimes a preference among more affluent, educated individuals exposed to Western culture and sometimes the resort of less advantaged populations who lack the resources to marry. Finally, cohabitation should also be contextualized with marriage in order to understand its wide ranging roles in family formation. For instance, in some Western contexts, increases in cohabitation have offset postponed or forgone marriage, leading to little change in union formation overall. However in other Asian contexts, such as Japan, Singapore, Taiwan and South Korea, it is less clear whether delayed marriage has been similarly offset by increases in cohabitation- mostly due to limited data on the prevalence of cohabitation (Jones 2007).

The Filipino Context

Because a variety of forces may play a role in influencing family change, we broadly discuss contextual factors relevant to family demography generally and union formation in particular in the Philippines. We consider contextual factors that may relate to a wide range of forces - idea change, institutional influences, policy environment, and economic instability – in order to help frame the thinking around cohabitation in the Philippines and provide a basis for comparison with other countries.

The Philippines is a collection of three main island regions where several different languages are spoken by several different ethnic groups. Prior to Spanish colonization in, there was no concept of a unified country and following the arrival of the Spanish, the main governing bodies tying the country together were village level Catholic bishops. To this day, the Philippines is characterized by a weak central state and strong family ties. Furthermore, families were structured by Malay bilateral kinship systems, reinforcing the importance of both maternal and paternal relatives.

Due to a strong colonial legacy, the Philippines stands apart for being the only predominantly Catholic or Christian country in the Southeast Asian region. Today, the vast majority of Filipinos report being Catholic and the Catholic Church continues to shape governance and policy. Today, despite a lack of
official religion, government documents make religious references and use religious dogma to justify policy positions (Family Code). Government agencies cite religious values in their mission statements and church leaders actively influence policy, either directly through vocal statements of support or censure or indirectly through national and local level politicians.

With both the wide practice of Catholicism and the prominence of the Catholic Church in policy discourse, it is not surprising that people in the Philippines espouse conservative views. However, in practice, there is a marked gap between ideals and reality. For example, an estimated 600,000 abortions occur each year—despite its illegality and the nearly universal popular and political opposition to abortion. And while divorce is illegal and considered morally unacceptable and never justifiable by a majority of the population (Pew Research, WVS), over 10,000 annulment petitions to end marriages were filed in 2013 (Philippines Office of the Solicitor General). It follows that the growth in cohabitation may be another social and family issue that exemplifies a gap between ideal and reality.

The Philippines is the only country in the world where divorce is illegal and the only recourse to marital dissolution is either legal separation (without the possibility of re-marriage in the future) or a costly and complicated annulment procedure inaccessible to most. Divorce has not always been illegal. Since colonization by the Spanish centuries ago, the prevailing national divorce policy varied depending on the occupying force—Spanish, Japanese, and American. After Philippine independence, divorce became illegal in 1950 for all non-Muslims (FAMILY CODE) and thus, it is possible that the rise in cohabitation in recent decades and decline in registered marriage are related to this policy change. Because marital dissolution is prohibitively expensive and difficult, couples with fewer resources may eschew marriage and prefer to cohabit, since dissolving a cohabiting union poses fewer economic and logistic hurdles. Older people currently cohabiting may have been married to a different partner in the past and unable to remarry their current partners; additionally, older cohabitators may have partners who were previously married. In both situations, both duration and prevalence of cohabitation would be extended since it would not be possible to transition to marriage.

The in-country arguments against divorce mainly focus on religious reasons but also, interestingly, on the preservation of Philippine culture and nationalistic distinction. Even supporters of legalizing divorce frame their support for divorce in a very moralistic manner, emphasizing how divorce policy in the Philippines should distinctly reflect Filipino culture and preserve the importance and dignity of marriage. Scholars in the Philippines have commented on the construction of the nuclear Filipino family as a symbol of tradition and national identity in the face of both colonial legacy and globalization:

---

1 "[Regarding divorce bills] un-Filipino, immoral, unconstitutional, and a danger to the Filipino family”
-Former President Gloria Arroyo (Miller 2009)

"That is a distinction that we should all be very proud of.”
-Archbishop Oscar V. Cruz (NYtimes 2011)

"[Describing proposed divorce bill] divorce, Filipino-style...There will be no Britney Spears marriages under our divorce law.” -Luzviminda Ilagan, congresswoman and co-author of unpassed divorce bill
“The moral values of the ‘Filipino family’ have come to represent the cultural distinction of the nation and its people in globalization... Hence, this [Family Code embodies the nation’s struggles between tradition and modernity in globalization, with the ‘Filipino family’ and its moral values representing tradition and therefore the failure of modernity (as well as colonialism) to tarnish national identity” (Parrenas 2010).

Additionally, while several attempts to pass a divorce law and increasing public support for legalizing divorce suggest that attitudes may be becoming more liberal, (NY times 2011, Miller 2008), support for legalizing divorce is still nowhere near universal. Thus, while divorce is associated with the SDT as an indication of heightened individual autonomy over prescribed religious and moral codes, the Philippines again remains purposefully distinct.

While the emphasis on nuclear families and conservative values remain persistent, the order in which transitional events among youth—such as parental home leaving, sexual initiation, partnership formation, marriage, and childbearing—occur has changed for many, further suggesting a gap between espoused ideals and reality (Gipson, Gultiano et al. 2012), Gipson 2014). For example, although many Filipino youth report strong disapproval of premarital sex and non-marital fertility, many have reported engaging in premarital sex or sex outside of a long-term partnership (Kabamalan 2004, Gipson, Gultiano et al. 2012). The prevalence of premarital sex has increased substantially over time for both young men and women and the majority of sexually active youth do not report using family planning due to poor awareness and access (YAFS 2013).

Unsurprisingly, both teenage pregnancy and non-marital fertility are also growing in the Philippines (Population and (UPPI). 2014),(Casterline and Kabamalan 2010). In 2013, 13.6% of 15-19 year olds were mothers or pregnant with their first child, representing a two fold increase from the prevalence of teenage motherhood in 2002. As of 2008, the share of all fertility attributed to cohabiting women was estimated at over 20 percent, nearly double the share in 1993. While marriage may be the preferred context for childbearing, more practical considerations may take priority when family formation decisions are made, leading to the rise in non-marital fertility. In particular, issues such as an unplanned pregnancy may hasten the formation of a cohabiting partnership before a young couple feels ready for marriage; financial insufficiency may delay marriage for lower income couples, leading them to opt for cohabitation (Kabamalan 2004, (Kabamalan and Ogena 2013). Thus, in a climate where single parenthood is likely unacceptable, marriage does not include the possibility of dissolution, and family planning options are limited for both the general population and especially for unmarried youth (Kuang and Brodsky 2015), unintended pregnancies may be another key contributing factor to the growth of cohabiting relationships.

In addition to policies and social norms directly related to family formation, labor migration may also be associated with cohabitation. The Philippines has been deeply affected by international labor migration, much of which impacts young female labour migrants. Due to the mobile nature of the working population and the element of economic and residential instability inherent in contract based work, young adults may hesitate to commit to more permanent partnerships if they anticipate that they or their partners may have to work abroad in the future. Long term migration may separate married
couples leading them to informal union dissolution if not legal separation or annulment, creating a subpopulation of left-behind people unable to re-marry. Furthermore, internal rural to urban migration among young people is also common and may also have an effect on union formation and living arrangements, especially since many migrant youths in urban areas are women (Gultiano and Xenos 2004). As youth move away from home and centers of social control, some may opt to form non-marital cohabiting relationships while free from parental control. Conversely, others may seek a live-in partner specifically as a substitute for family. In urban settings, migrant youth are more likely to be cohabiters than local youth (Gultiano and Xenos 2004). However, it is possible that the reason for migration may be related to partnering or relationship decisions.

**Cohabitation in the Philippines**

The Philippines is unique because cohabitation is not an entirely new phenomenon and both its measurement and comparison with marriage patterns are possible. For example, while the absolute number of registered marriages in the Philippines has declined considerably in the last decade – by nearly 25% between 2004 and 2013– (CITE Philippines Statistics Authority), it is possible that this decline has been offset by increases in cohabitation. Despite this, researchers do not always distinguish cohabiters from married people or cohabiters from single people in analyses of union formation. This further emphasizes the importance of looking at cohabitation both individually and in comparison to marriage in order to gain insight into how these family formation processes compare.

Historically non-marital cohabitation was practiced in the Philippines before Spanish colonization and often among lower income people to avoid legal fees and ceremony or celebration costs. As Western influences and religion took hold, traditional cohabitation persisted in geographic areas far removed from urban centers and capital cities. Today, cohabitation as an older, indigenous practice coexists alongside more contemporary forms of cohabitation, representing both longer term commitment and trial marriage. Cohabiting women may even opt to self-report as being married or practicing *kasalukuyang may kinakasama* - a traditional form of lifelong commitment- over identifying as a cohabitor (Choe 2002). For others, cohabitation serves as a prelude to marriage, shown by the substantial proportion of married people reporting pre-marital cohabitation with their spouse (Williams, Ogena et al. 2007, Guerrero 1995).

Cohabitation in the Philippines has often been linked to traits associated with disadvantage or instability - absent parents, lack of engagement in work or education, migration, urban residence- although previous studies have generally focused solely on youth or the young adult population (Kabamalan 2004; Williams, Ogena et al. 2007). And while marriage is widely viewed as ideal, especially for women, financial reasons (such as the economic burden of hosting a wedding reception and the costs of filing the necessary paperwork) and pregnancy are often cited as motivations behind cohabiting. Witnessing parents’ marital difficulties is another reason for wariness toward marriage and preference for cohabitation, especially because divorce is illegal in the Philippines. Interestingly, while there are distinct correlates of cohabitation overall, cohabiters who eventually marry are similar in socio-demographic profile from people who marry directly (Williams, Ogena et al. 2007; Xenos and Kabamalan 2007; Kabamalan and Ogena 2013).
Thus, individualism and secularism among the educated elite do not appear to be behind the growth of cohabitation among youth, as the SDT would suggest (Xenos and Kabamalan 2007). There are also inconsistencies in sexual mores between classes, giving further credence to the idea that cohabitation may be the recourse of lower income classes under financial duress (Kabamalan and Ogena 2013; Xenos and Kabamalan 2007) and not the practice of wealthy, educated, elite forerunners of idea change. Nonetheless, further research is needed to explore whether the meaning of cohabitation and its role in family formation is changing and how it develops over the life course.

Although the recent increase in cohabitation in the Philippines has generated attention from researchers, there are still many facets of this demographic transition that would benefit from further investigation. First, as previously stated, researchers of union formation do not always differentiate between married women and cohabiting women (Abalos 2014, NDHS reports) or between single women and cohabiting women (Jones 2007), which may mask several trends. Additionally, existing studies of cohabitation focus on young women (Kabamalan 2004; Xenos and Kabamalan 2007, Williams, Ogena et al. 2007) when older age groups are particularly important to include in analyses because their union histories are longer and thus may provide a more complete picture. Existing studies have also largely been descriptive in nature and may not fully capture the age, period and cohort related dimensions of union formation (Kabamalan 2004; Xenos and Kabamalan 2007). Finally, there has been little evaluation of the scale of national union formation trends in the Philippines, especially within the larger context of the SDT theory, and whether the practice and meaning of cohabitation versus marriage differ between sub groups. Additionally, the timing of entrance into cohabitation compared to marriage and whether this differs between subgroups has not been fully addressed.

This paper investigates the background factors associated with transition into cohabitation, relative to marriage in order to explore whether women who cohabit but never marry their partner differ from women who do marry. Specifically, we will investigate whether the level of education a woman has achieved by the time she forms her first union is related to her risk of entering cohabitation, relative to her risk of entering a union that directly or eventually transitions to marriage. We also compare the timing of entry into cohabiting unions and the timing of entry into unions that directly or eventually transition to marriage.

Methods and Data

Analytic Strategy and Variables
This study applied a competing risk model to the most recent Philippines NDHS data (2013) to examine the educational gradient of union formation. The 2013 NDHS is a nationally representative sample of 16,155 women aged 15-49 and interviewed from a pool of 16,437 eligible women, yielding a response rate of 98.3%. The NDHS mainly collects data on fertility and family planning, including data on the timing of first union and current union status. It does not collect detailed union histories, such as information on higher order unions or timing of union dissolution. All women have current union status data and most of those ever in union have reported data on timing of first union. 5% of women who have ever been in union have imputed values for the timing of first union. Because there are data on the timing of the first union and the type of current union but no data on the timing of union transitions or the type of first union, we are not able to determine which unions transitioned from
cohabitation into marriage and when this transition occurred. In other words, we cannot distinguish unions that transitioned from cohabitation to marriage from unions that were direct marriages. Due to this data limitation, we focus on entry into first order unions and frame our analysis by comparing women in cohabiting first order unions that had not transitioned to marriage by the time of interview with women in first order unions that were either direct marriages or had transitioned into marriage by the time of interview, acknowledging that some cohabiters may eventually go on to marry and some married women may have cohabited prior to marriage.

The majority of women reported 1 union only and for those women, we imputed the type of their first union from their current union status. Out of 10,643 women who had ever been in union, 921 women reported higher order unions - less than 9 percent. For these women, we made educated assumptions about type of first union (see Appendix). For example, currently married women who reported multiple unions are likely to have only cohabited for their first union, since marital dissolution and remarriage are very difficult due to the illegality of divorce. Furthermore, although we made assumptions about all re-partnered women, re-partnering is more common among older women and cohabiting women so any limitations related to these assumptions may affect this group more. We tested multiple combinations of assumptions to ensure robustness of any observed patterns and for our main model, we relied on categorizations denoted in Appendix 1. Finally, there is likely a discrepancy in the reliability of recall for timing of union between married women and cohabiters, as legal marriage is more likely marked by a singular event. However, whether that biases estimates earlier or later is unclear.

We used a discrete-time competing risk model to investigate the competing risk of cohabitation relative to the risk of the main event - a union that is either a direct marriage or transitions to marriage by the time of interview. Because women of lower socio-economic status typically enter into unions earlier than their wealthier, more educated peers, we use a competing risk model to control for these expected timing differences and focus instead on correlates of entering a cohabiting union relative to a union that is either a direct marriage or transitions to marriage, comparing only un-partnered people who are still at risk of union formation at a given point in time. This allows us to focus on the differences between cohabiting unions and unions that are either direct marriages or transition to marriage, instead of the predictors of union formation more generally. This method also addresses the issue of right censoring because some women do not experience the event of interest and remain un-partnered over the observation period.

The outcome variable consisted of the three categories- women who entered cohabitation, women who entered a union that was either direct marriage or transitioned to marriage by the time of interview, or women who had never been in union. Using multinomial logistic regression, we examined the relative risk ratio of cohabitation outcome by age, education status, wealth, residence, and period using women who directly or eventually married as the baseline category.

---

2 See appendix describing model checking based on testing different assumptions. In summary, cumulative incidences and median ages do not vary noticeably. Educational pattern is consistent. Other background variables’ associations differ somewhat, depending on which assumptions used.
The unit of analysis over the observation period was person-months. Subjects were assumed to enter into the risk set at the month of their 15th birthday and to exit the observation period when they entered into their first union. Those who survived the observation period (the period in months between age 15 and the time of the interview) were women who never entered into any union and were therefore censored. Subjects who reported entering a union before the month of their 15th birthday were assumed to have failed in the month after they turned 15, at exact age 15 years and 1 month, thereby contributing one month of survival.

Independent Variables
Our main independent variable of interest was education, which we use as a proxy for the opportunities and resources available to women. The large majority (95%) of both men and women in the Philippines have had some formal education, with women reporting a slightly higher number for median years of completed schooling, compared to men (NDHS 2013). Primary school and high school together comprise 10 years with 6 years in primary education and 4 in high school education. Although primary school is compulsory and high school education is considered a basic human right by the national constitution, net enrolment is far below universal and the completion rate for both primary school and high school is less than 75% (Basic Education Statistics DepED 2009-2010). Compulsory primary school education is also not enforced by the government. Due to attrition over the course of primary school and high school, as well as lack of universal attendance, education was represented in our model using a time varying categorical education variable describing the level of education achieved by the respondent in that particular person month and a time varying school enrollment variable. The time varying education variable was created based on respondents’ reported total years of education with the assumption that all respondents began schooling at age 6, when primary school in the Philippines typically begins. Person months during which respondents had achieved 6 or fewer years of schooling were labeled as “low education,” months during which respondents had achieved between 7-10 years of education were labeled “medium education” and months during which respondents had achieved over 10 years of education were labeled “high education” or post-secondary education. Women who completed 9 or fewer years of schooling enter the observation period at age 15 having already completed their education and thus their level of education did not change over the rest of the observation period. These women were also not enrolled in school during the entire observation period.

Period
Our observation period is a simulated longitudinal data set based on respondent age, not calendar time. Because of this, we controlled for period effects with a variable for each successive decade in order to show change over time. The observation period encompassed calendar time ranging from 1978 to 2013 which did not divide evenly into decades. Instead, we created a categorical period dummy consisting of 3 separate decades spanning 1978-2007 and one final category consisting of 2008-2013. We also tested an interaction term between education, the main variable of interest, and period to explore whether the relationship between education and union formation has changed over time.

Age
Age is included and refers to women’s current age in a specific person month.

Residence

We included a residence variable in order to explore differences in union formation between rural and urban residents. While on average, rural residents may be more likely to form unions and form them earlier than urban residents, who tend to be wealthier and better educated, urban residence may represent distance from centers of social control for internal migrations and centers of exposure to more liberal attitudes and Western culture.

Household Wealth

We also controlled for wealth based on the NDHS constructed household wealth index. This index is based on household assets, such as ownership of consumer goods like a car or television, and dwelling characteristics, such as sanitation facilities and sources of drinking water.

Results

Increased Prevalence of Cohabitation

In the past two decades, cohabitation has been increasingly practiced among all age groups. Changes are especially stark among the younger population; approximately one quarter of all 20-29 year old women report currently cohabiting, up from around 6 percent in 1993 (2013 & 1993 DHS reports). At the same time that cohabitation has increased in all age groups, the percentage of women currently married has decreased consistently across all age groups (Table 1), suggesting the possibility that decreases in marriage may be offset by increases in cohabitation. The proportion of women who have never been in union has been relatively stable, indicating that women may be opting to cohabit instead of marrying and may either marry later or remain in a long term cohabiting relationship. Furthermore, at most age groups, the majority of cohabiters have never been in a prior union. Even at older ages (40-49), nearly 40 percent of cohabiters have never been in a prior union.

Socio-Economic Profile of Cohabiters

Descriptive results (Table 3) reveal differences between never in union women, married women, and cohabiting women. Most women who entered a union during the observation period had married by the time of interview.

55 percent of cohabiters reported achieving medium levels of education, compared to 45 percent of women who had married by the time of interview. However, only 24 percent of cohabiters reported high education levels compared to 32 percent of women who married. Additionally, 22 and 24 percent of cohabiting women were in the poorer and middle wealth quintile, compared to 18 and 19 percent of women who married. More strikingly, over one fifth of women who married were in the wealthiest quintile, compared to just 15 percent of cohabiters. 85 percent of cohabiters reported being Catholic, considerably higher than the 77 percent of women who married. This may be related to the fact that the Muslim population is permitted to divorce under a separate family policy geared toward Muslims [MUSLIM FAMILY CODE], while the rest of the population is specifically prohibited. Finally, more than
half of cohabiters were urban residents at the time of interview, in contrast to women who married who were more evenly split between urban and rural residence.

**Duration of Cohabiting Unions**

Table 4 shows the duration of union for women’s first unions, by union type. Generally speaking, marital unions tended to be of longer duration than cohabiting unions, with nearly half of them 15 years or longer in length. However, most, cohabiting unions were 5 years or longer in duration and nearly one third of cohabiting unions were 10 years or longer. Longer cohabiting unions suggest that cohabitation may be a substitute for marriage or at least a longer term arrangement.

**Competing Risk Model- Time to First Union**

We then applied a competing risk model (Figure 1) where the main event was entry into a union that was either direct marriage or transitioned into marriage. The competing event was entry into a cohabiting union that did not transition to marriage by the time of interview. Women who did not enter any union over the observation period were right censored. The probability of entering a cohabiting union or a union that transitioned to marriage, or any union was plotted against the corresponding age at entry into the relevant union type (Figure 1). Overall, never in union women were more likely experience first partnership by entering into a union that transitioned to marriage than by entering into a cohabiting union. Nearly 90% of all never in union respondents would enter into some kind of union over their lifetime; by approximately age 24, half of all women would have entered into their first union.

The cumulative incidence of first unions that directly or eventually transitioned to marriage was 0.716, with the oldest age at which a woman experienced such an event at 47.25 years. Half of first direct or eventual marriages in the risk set occurred by age 22.2, indicating a very swift uptake in the 7 year period between ages 15-22, followed by much slower, more gradual growth over the next 25 years. For cohabiters, the cumulative incidence of cohabitation was 0.219, with an oldest age at first cohabitation of 45.4 years of age at first cohabitation for the oldest entrant. Similar to the married women, half of cohabiters entered into their first unions by age 21, demonstrating that half of first cohabiting unions were formed in the first 6 years of the observation period.

**Multinomial Logistic Regression – Correlates of Cohabitation vs. Marriage**

**Educational Gradient**

Estimating the risk of remaining single, entering cohabitation or entering a union that directly or eventually transitions to marriage is important because risks can vary independently, whereas in the context of first partnership, the proportions single, cohabiting, or married must add up to 100 percent. The competing risk models examine the risk of entering a cohabiting union that does not transition to marriage within the observation period, relative to the risk of entering a union that directly or eventually transitions to marriage within the observation period. The baseline outcome is a union that directly or eventually transitions to marriage and all risks of cohabitation are specified relative to this event. Thus, the risk terms displayed in table 5 represent the ratio between two risk relative terms associated with a unit or category change in the associated parameter. For education- our main parameter of interest-
where the reference category is medium education, the risk reflects a comparison of slope of the educational gradient for cohabitation relative to the slope of the educational gradient for marriage. This allows us to explore whether there is an educational gradient associated with cohabitation that extends beyond the educational gradient more generally associated with union formation.

Our results (Table 5) indicate that low educated and medium educated women had a higher risk of cohabiting for their first union, relative to direct or eventual marital union, compared with highly educated women. The risk of cohabitation relative to direct or eventual marriage was similar between low educated women and medium educated women, whereas highly educated women had a significantly lower risk of entering into cohabitation, relative a direct or eventual marital union. This suggests that the negative educational gradient for union formation is steeper for cohabiting women compared to women in unions that directly or eventually transition to marriage. Because women who reported multiple unions had ambiguous union histories, we also tested several different assumptions made regarding first unions to confirm robustness of any observed educational patterns. While the effect of some control variables differed depending on the assumptions used, the educational pattern was consistent throughout. In addition to the level of education achieved, which represents opportunities, resources and ideation, school enrolment may also be related to delayed union formation. Specifically, being enrolled in school may also particularly delay marriage, which is typically associated with more preparation and a larger outlay of time and resources compared to cohabitation. To explore this, we also tested school enrolment as an explanatory variable and found that it was not associated with the risk of entry into cohabitation.

We tested various background characteristics, such as age, residence, wealth and decade, in our model to look for other associations. We also checked for collinearity between wealth and education and found no evidence, based on both visual inspection and collinearity diagnostics (variance inflation factor, condition index). Because the quality of education in the Philippines is highly variable, we investigated the possibility of interaction between wealth and education, as wealthier women may have access to higher quality education than their less wealthy counterparts. Although most interaction terms were not significant, testing the interaction coefficients separately using a Wald test showed that the interaction variable significantly improved the model and led us to include the interaction term.

**Wealth and Residence**

We controlled for both wealth and residence in our model, both of which were time invariant. To account for this limitation, we first analyzed all women together and then also looked separately at young women (women born 1984 or later, under 30 at the time of interview) and older women (women born before 1984, 30 or older at the time of interview). This was done because both wealth and residence variables were only measured at the time of interview and we assume that younger women were less likely to have markedly changed their residence or wealth status between the time of entry into their first union and time of interview, since these intervals were shorter.

---

3 See appendix for documentation of robustness checks
In the full model, both the poorest and the wealthiest women had a significantly decreased risk of cohabitation relative to entering a direct or eventual marriage, compared to middle income women. While women in the middle three wealth quintiles showed similar risks of cohabitation relative to direct or eventual marriage, women in the highest wealth quintile had a 32 percent lower risk and women in the lowest had a 21 percent lower risk. There was evidence of interaction between wealth and education for highly educated women at the poorest and richest income levels. Specifically, highly educated women in the richest quintile had a 66 percent (relative to middle income, middle educated women) lower risk of cohabitation. In contrast, at the lowest wealth quintile, belonging to the highest education group served to increase the risk of cohabitation, such that highly educated women in the poorest quintile had a similar relative risk of cohabitation compared to their middle income, medium educated counterparts.

The general wealth pattern with the poorest and wealthiest being less likely to cohabit persisted among younger women, although there was no evidence of interaction. For older women, wealth was negatively associated with the risk of cohabitation.

Urban residence was associated with a 58 percent increase in risk of entering cohabitation relative to entering a union that transitioned to marriage, which shows that urban women were more likely to cohabit than rural women. This was consistent for both young urban women and older urban women.

**Age & Decade**

Age had a negative relationship with the risk of cohabitation when other control variables were included, specifically period, as measured approximately by 10 year intervals. For each year increase in age, women had an approximately 4 percent lower risk of entering cohabitation, relative to entering a union that transitioned to marriage. While this pattern was also observed among young women, the pattern was reversed among older women. Women born before 1984 were actually 3 percent more likely to cohabit, relative to entering a union that transitioned to marriage, with each increasing year of age. Thus, for older women, for each additional year they remained single, their likelihood of cohabiting for their first union increased.

Decade was significantly associated with the risk of entry into cohabitation versus entry into a union that transitioned to marriage. With each successive decade, women were much more likely to cohabit for their first union compared to entering a union that transitioned to marriage. Because many first cohabiting unions were over 4 years in duration (Table 6), the increased prevalence of cohabitation in recent decades noted earlier may be attributable to both long union duration and increased incidence over time. The one exception to the decade pattern was the earliest decade (1978-87) where the relative risk of entering a cohabiting union versus entering a union that transitioned to marriage was not significantly different than the relative risk in the next decade (1988-1997).

**Discussion**

The Philippines is in a fascinating and unique demographic transition where cohabitation is increasingly practiced- growing in both incidence and prevalence- while other family behaviors remain relatively conservative. Our study identifies important correlates of cohabiting unions versus unions that
transition to marriage using a competing risk model that addresses the limitations of looking solely at
cross-sectional proportions, issues of right censoring, and the expected educational gradient of union
formation more generally. The following section discusses our findings within the context of existing
theories, providing insight into the processes underlying this demographic transition based on other
countries’ experiences. We then conclude by positing some preliminary explanations for why
cohabitation is increasing and also speak more specifically to the educational gradient observed.

First, our findings provide evidence that in the Philippines, never in union women with low and medium
levels of education have a significantly higher risk of entering into a cohabiting union relative to entering
a union that transitions to marriage, compared to women with high levels of education. Although data
limitations required us to make assumptions about women with ambiguous union histories, this
educational pattern was robust when tested against a variety of assumptions. The main findings were
not consistent with the SDT, where cohabitation increases due to liberalized attitudes and beliefs among
the educated elite. Instead, this pattern was more reminiscent of the “pattern of disadvantage,” noted
across Europe and in the United States (Perelli-Harris and Gerber 2011, Perelli-Harris et al. 2010), where
non-traditional family structures are more likely to be the product of economic instability among the
less educated, and echoes the findings of previous studies of youth cohabitation. However, an
important distinction between the “pattern of disadvantage” and our results is that the former pertains
mainly to childbearing within cohabitation, speaking to educational differences between married people
and cohabiters in terms of childbearing behavior. In contrast, our research question focuses solely on
educational differences in the entry into cohabitation. The pattern of disadvantage describes the
negative relationship between education and the risk of childbearing within cohabiting unions and
posits that while women of all educational backgrounds practice cohabitation, lower educated women
are the most likely to have a birth within cohabitation and that the effect of lower education on fertility
is stronger in cohabitation compared to marriage. In contrast, our results demonstrate that in the
Philippines, an educational gradient emerges upon entry into union, prior to childbearing. However, it is
important to consider that partnership decisions may be heavily influenced by fertility events, which
should be further unpacked in future research. Nonetheless, while women of all educational
backgrounds may cohabit in Western countries, our findings suggest that in the Philippines, the less
educated were more likely to cohabit than the highly educated.

Our results also showed that for the most part, the wealthiest women were the least likely to cohabit,
compared to less wealthy women. However, the very poorest women were also less likely to cohabit
than middle income women. Furthermore, we found that the effect of higher education on decreasing
the risk of cohabitation was stronger in the wealthiest quintile, compared to the effect at the middle
income quintile. However, at the lowest wealth quintile, higher education had the opposite effect. This
may be because the highly educated, low income women in the sample were a very selective group who
demonstrate the liberal behaviors and attitudes associated with high education but are constrained by
limited resources, and would thus differ from the broader patterns.

---

4 We tested wealth with “never in union” as the base outcome and found that the poorest women had an increased relative risk of marriage,
compared to middle income women and a similar relative risk of cohabitation. This means that the poorest women do form unions, but that
they do not preferentially form cohabiting unions.
Based on the results of the competing risk model and the median age of entry into union, we found that the bulk of union formation still tended to happen at an early age—early 20s—in the Philippines, regardless of union type. Among younger women, born 1984 or later, those who were older had lower risks of cohabitation while women born before 1984 had a positive relationship between age and risk of cohabitation. For younger women, it is possible that those who opt to form unions early enter into less stable, cohabiting relationships simply because they are younger and less ready to commit to a permanent arrangement. In contrast, among older women, those who delayed union formation may be a more selective group who generally eschew marriage for ideational reasons and thus have an increased risk of cohabitation. Older women are also more likely to form first unions with re-partnered men, some of whom may be legally married to their previous partner and thus unable to re-marry. Finally, we also found that the risk of cohabitation had steadily increased over time, which was consistent with the growing prevalence of cohabitation noted in the descriptive results.

Conclusion

Cohabitation has been increasingly practiced in the Philippines. Although past research suggests young men and women perceive that marriage is ideal and cohabitation should be a prelude to marriage, the duration of most cohabiting unions suggests that many couples practice cohabitation as a longer term arrangement. Our analysis also shows that the incidence of cohabitation has increased over time as well, which also contributes to the higher prevalence of cohabitation. Furthermore, this study shows that the risk of cohabitation is associated with lower levels of education and also generally with lower levels of wealth, both of which are not consistent with characteristics of a SDT or evidence of value change.

These findings provide crucial preliminary insights into the nature of union formation change in the Philippines, placing this demographic transition within the larger context of family formation patterns worldwide. In fact, the current patterns of union formation in the Philippines proves to be truly unique in a number of ways—distinct from existing patterns in Western, Asian, and Latin American regions. First, cohabitation has gained prevalence despite the fact that postponement of nuptiality and fertility has been weak at best. Typically, cohabitation is a lagging feature of demographic transition and gains popularity only after delayed union formation and childbearing occur, as in Southern Europe and East Asia. Second, the policy climate in the Philippines, particularly the illegality of divorce and abortion, the limited availability of family planning, and the emphasis on co-residential nuclear families may act simultaneously as both an impetus for cohabitation and also an obstacle to widespread ideational change, preventing full convergence to SDT. Finally, the large scale international migration of working age men and women of all ages also undoubtedly has an impact on familial cohesiveness and perhaps also on attitudes toward partnership, although further research is required to better grasp the nature of this impact. In addition to better understanding how migration may affect families, further research should also investigate why women and men of all ages and backgrounds choose to cohabit, how they perceive their cohabiting unions, and whether their partnership decisions are related to childbearing behavior. This would allow for a deeper, more comprehensive and also nuanced understanding of the meaning of cohabitation in the Philippines and its growing importance as a family form. Further analysis of union formation dynamics and its correlates will require data with in-depth nuptiality
schedules from a nationally representative population, which to date, are not collected in the Philippines.

Figures & Tables

Table 1 – Current Union Status Distribution Within Each Age Group

<table>
<thead>
<tr>
<th>Year</th>
<th>Married, no prior union</th>
<th>Married, prior union</th>
<th>Cohabiting, no prior union</th>
<th>Cohabiting, prior union</th>
<th>Never Married or Cohabited</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993</td>
<td>0.047</td>
<td>0.000</td>
<td>0.025</td>
<td>0.001</td>
<td>0.923</td>
</tr>
<tr>
<td></td>
<td>0.380</td>
<td>0.014</td>
<td>0.056</td>
<td>0.004</td>
<td>0.548</td>
</tr>
<tr>
<td>20-24</td>
<td>0.647</td>
<td>0.014</td>
<td>0.049</td>
<td>0.015</td>
<td>0.253</td>
</tr>
<tr>
<td>25-29</td>
<td>0.759</td>
<td>0.020</td>
<td>0.041</td>
<td>0.017</td>
<td>0.122</td>
</tr>
<tr>
<td>30-34</td>
<td>0.790</td>
<td>0.026</td>
<td>0.032</td>
<td>0.027</td>
<td>0.067</td>
</tr>
<tr>
<td>35-39</td>
<td>0.770</td>
<td>0.039</td>
<td>0.029</td>
<td>0.025</td>
<td>0.054</td>
</tr>
<tr>
<td>40-44</td>
<td>0.724</td>
<td>0.049</td>
<td>0.020</td>
<td>0.036</td>
<td>0.063</td>
</tr>
<tr>
<td>45-49</td>
<td>* widowed, divorced and separated women not shown</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2 – Categorization of 1st Union Types, by current union status and reported number of unions

<table>
<thead>
<tr>
<th>Union Type</th>
<th>Currently Married</th>
<th>Formerly Married</th>
<th>Currently Cohabiting</th>
<th>Formerly Cohabiting</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Union Only</td>
<td>Marriage</td>
<td>Marriage</td>
<td>Cohabitation</td>
<td>Cohabitation</td>
</tr>
<tr>
<td>More than 1 Union</td>
<td>Cohabitation</td>
<td>Marriage</td>
<td>Marriage</td>
<td>Cohabitation</td>
</tr>
</tbody>
</table>

Table 3 - Percent of women by demographic characteristics and 1st union type
(*mean age denotes age at time of interview, not at time of entry into union)
Table 4 – Distribution of duration of first union in years, by union type

<table>
<thead>
<tr>
<th>Union Type</th>
<th>0 to 4 years</th>
<th>5 to 9 years</th>
<th>10 to 14 years</th>
<th>15 to 19 years</th>
<th>20 to 24 years</th>
<th>25 to 29 years</th>
<th>30+ years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Union that transitions to marriage</td>
<td>11.71</td>
<td>19.85</td>
<td>21.26</td>
<td>17.81</td>
<td>15.71</td>
<td>11.1</td>
<td>2.56</td>
</tr>
<tr>
<td>Cohabiting union</td>
<td>42.08</td>
<td>25.37</td>
<td>12.32</td>
<td>8.46</td>
<td>6.23</td>
<td>4.1</td>
<td>1.44</td>
</tr>
</tbody>
</table>

Figure 1. Competing risk of entry into union with transition to marriage versus entry into cohabiting union without transition to marriage, over age of entry into union
Table 5. Relative Risk Ratio for cohabitation, by background characteristics
Appendix 1

Current and formerly married women may have cohabited before marriage. This would mean that they actually married at a later age than what was reported for their age at first union; the number of failures due to cohabitation would be biased low and the age at marriage would be biased low. Currently married women who reported multiple unions are likely to have only cohabited in prior unions, instead of being married in a prior union, since divorce is very difficult. However, currently cohabiting re-partnered women could have been previously married or previously cohabiting. Thus, it’s possible we are misestimating the incidence of cohabitation as first union among re-partnered cohabiters. Furthermore, although we made assumptions about all re-partnered women, re-partnering is more common among older women and cohabiting women so any limitations related to these assumptions may affect this group more. Finally, there is likely a discrepancy in the reliability of recall between married people and cohabiters, as legal marriage is more likely marked by a singular event. However, whether that biases estimates earlier or later is unclear.
References


