The Transition to Adulthood in Cambodia

Patrick Heuveline
Floriane Demont
Bunnak Poch

PWP-CCPR-2012-016

October 2012

California Center for Population Research
On-Line Working Paper Series

The Transition to Adulthood in Cambodia

Patrick Heuveline,[1] Floriane Demont,[2] and Bunnak Poch[3]

[1] Contact author: University of California, Los Angeles; Department of Sociology; 264 Haines Hall; Box 951551; Los Angeles, CA 90095-1551. Email: heuveline@soc.ucla.edu
Wishes to acknowledge the support of the Center for Advanced Study in the Behavioral Sciences, where this article was written.

[2] Université de Genève, Section des sciences sociales, Laboratoire de démographie et d'études familiales, 40, Bd. Du Pont-d'Arve, 1211 Genève 4. Wishes to acknowledge the support of the Ernst and Lucie Schmidheiny Foundation (CH-1211 Geneva 4).

[3] Population Studies Center, Royal University of Phnom Penh, Phnom Penh, Kingdom of Cambodia.

1. INTRODUCTION

Three decades after the fall of the Khmer Rouge regime (KRR) in January 1979, analysis of contemporary Cambodian society can still hardly be free of references to that period. The number of deaths in excess of those expected under normal circumstances cannot be determined with much precision (Heuveline 1998), but by some estimates, the death toll of the three years, eight months and twenty days of the KRR reached 1.7 million—a fourth of the total population at the KRR's outset (Sliwinski 1995; Kiernan 1996). KRR-era fertility also fell, but a baby-boom quickly followed (Heuveline and Poch 2007), and these demographic trends together result in a most unusual age structure. At the time of the first post-KRR census in 1998, 52.9% of the total population was under the age of 19.

Just as the cohorts that were entering adulthood at that time were much larger than those who preceded them, the political, economic, and social context in which they were operating was vastly different from that of their elders. The KRR abolished formal education both in public schools and in pagodas in the whole country. For many, displaced by the five-year conflict preceding the KRR, formal education had been interrupted earlier. Whether they would resume their education when public schools reopened in the early 1980s depends in part on how old they were then. For those who did not return to school and instead entered the labor force, they were very few professional opportunities owing to the state of the country's economy and its isolation from the U.S. and West-European Nations. Deeming as illegitimate the Vietnamese invasion that had brought down the KRR, these Nations withheld aid and investments until the early 1990s, that is, only after the 1989 pull-off of Vietnamese troops, the 1990 four-party political agreement in Paris, and the 1991-1993 United Nations' transitional authority over the country. For the generation entering the labor force in the following years, and with the benefit of an uninterrupted educational trajectory, the conditions could not be more different from those of the previous generation.

In this paper, we analyze the transition to adulthood of those aged 12 to 24 years at the time of the 1998 census, still the most recent census publicly available. These birth cohorts were thus born between 1973 and 1986, and those were cohorts that compared to the preceding ones benefited from uninterrupted education trajectories (perhaps slightly delayed for the 1973 or 1974 cohort), and better job market prospects (except for those dropping out early among the earlier cohorts). The main difference among these cohorts is simply one of size, with the size of the pre-1980 birth cohorts much smaller than that of the later birth cohorts.

As far as we know, there is no published research in the international literature on the transition to adulthood in contemporary Cambodia. Our objective in this chapter is first to describe some of the key transitions from school to work, from parental to independent household, from single to married, and to parenthood. Within the limitations of cross-sectional data, we also make an attempt to qualify the transition to adulthood along key dimensions and to relate it to the contextual structure.

2. DEMOGRAPHIC CONDITIONS, SOCIAL CONTEXTS, AND INSTITUTIONAL ARRANGEMENTS

2.1 Historical and Demographic Conditions

The General Population Census of Cambodia, conducted in March 1998 (GPC 1998, thereafter), was the first census since 1962, and the most recent available at this writing. (A more recent census was fielded in April 2008, but results are not yet available). The GPC 1998 data show that the 12 to 24 year-olds represent 26.8 % of the total population of Cambodia (National Institute of Statistics 1999). The 12-to-24 year-olds in the GPC 1998 were born from March 1973 and March 1986, a period that overlaps with the KRR (April 1975 and January 1979). One of the important features of that age group for the purpose of this study is the fluctuation in cohort size that resulted from the KR-era birth deficit and post-KR baby boom (Heuveline and Poch 2007). The 12 year-olds (350,000) constitute the largest single-year age group, nearly three times as many as the 21 year-olds (131,000). The average size of single-year age groups from 12 year-olds to 18 year-olds (304,000) is nearly twice the average size of single –year age

groups from 19 year-olds to 24 year-olds (156,000). In other words, the age distribution *among* the 12-to-24 year-olds is very young.

The GPC 1998 did not collect any data on ethnicity or race, and data on the mother tongue has not been publically released. Data on religious affiliations show 96.4% of the country's population as Buddhist, 2.1% as Muslim, and 0.5% as Christian (with 1.0% other or unreported religion). Among those three groups, the proportion of 12 to 24 year-olds is almost identical to the national average among Buddhists and Christians, and slightly lower among Muslims (25.1%).

The 12 to 24 year-olds represent a slightly larger share of the population in urban areas (28.5%) than in the country as a whole. In the GPC 1998, the definition of urban is an administrative one with entire districts (sub-divisions of the country's 24 provinces) being classified as urban, including the four central districts of Phnom Penh Province's seven districts (where the nation's capital is located), three small provinces each centered around a town (Sihanoukville, Kep, and Palin), and the district in which the provincial capital is located for the other 20 provinces. By that definition, 15.7% of the country's population is classified as urban.

2.2 Socio-Economic Conditions and Structure of Inequality

2.2.a Socio-Economic Conditions

In December 1990, the signing of the "Agreement on a Comprehensive Political Settlement of the Cambodia Conflict" signaled the end of Cambodia's isolation from the U.S. and West-European Nations and ushered in a transitional political phase overseen by the United Nations. This translated in a marked economic upswing with the GDP growing at 7.6% per year in 1991, compared to 1.2% per year in 1990 (Asian Development Bank (ADB) 2008). With some fluctuations from 4.1 to 9.2% annually, the GDP continued to grow relatively rapidly until 1998.

During this period, the labor force continued to be employed predominantly in the agricultural sector, albeit less so over time: from 81.0% in 1993 (first available year) to 76.8% in 1998 (ADB 2008). During the same period, the manufacturing sector grew from 2.3% to 3.2% of the employed labor force. Unemployment rates also grew during this period, from 2.5% in 1994 (first available year) to 5.3% in 1998. Youth unemployment rates were ever higher than in the general population for that year, particularly among 16 to 22 year-olds. The rate remains above 7.5% from age 17 to age 20, peaking at 7.9% for 18 year-olds.

2.2.b Structure of Inequality

For 1997, the Gini Index for Cambodia stands at 40.4, with over a third of the total income going to the richest 10% (33.8%, United Nations Development Programme (UNDP) 2001). At the other extreme, the poorest 20% only make up for 6.9% of the total income, and therefore, the average income is only a third of the mean income in the bottom quintile of the income distribution at a time when the Gross Domestic Product (GDP) per capita is estimated at $260 (for 1999). In real terms, 34.1% of the population is estimated to be living on less than $1 a day per person, and another 33.6% with between $1 and $2 a day per person (in 2004, data not available for earlier years, UNDP 2007).

There are hardly any data on the major dimensions along which this dramatic inequality is structured, except for urban/rural inequality. For 2000, the relative poverty rate stands at 40.1% in rural areas, about twice as high as in urban areas (21.1% in 2000, World Bank 2001).

2.3 Institutional Arrangements and Cultural Norms

Among all the dramatic changes implemented by the KR, the most consequential for our study was the abolishment of all formal education. Soon after the fall of the KR regime, formal education was gradually

restored, and since even the older individuals in our reference age group were only six-year olds at the time, most should have had a fairly normal education.

2.3.a Educational System

Age-grading in the educational system. Since the 1996-1997 school year, general education is divided as follows. Primary education consists of grades 1 to 6, and secondary education is further divided between *college* (grades 7 to 9) and *lycee* (grades 10 to 12). The current educational plan calls for one primary school in each village, one *college* in each commune (a cluster of half a dozen to a dozen villages), and one *lycee* in each district (a cluster of about a dozen communes). The minimum age to leave *college* is 15, and the minimum age to enter primary school is 6. Before age 6, non-compulsory preschool education consists of three steps, although about a fourth of pre-schoolers attend mixed-step classes.

Entry into *college* is governed by an exam, but grade repetition is quite prevalent at any grade. As many as 24.1% of all general education students were repeaters in 1996-1997 (Ministry of Education, Youth and Sports 1997). As a result, few students are at the expected grade for age. Only 61.4% of first-graders are actually aged 6 (Ministry of Education, Youth, and Sports 1997). As grade repetition accumulates, only 43.9% of the 7^{th}-graders are aged 12. Older students being less likely to enter *lycee*, the proportion of 10^{th}-graders on target at age 15 actually increases to 54.4%.

Stratification of the educational system. Many private schools are certainly visible nowadays in urban areas, but the vast majority of schools are believed to be public (although no data could be found on the exact breakdown). Both public and private schools are under governmental control with respect to the curriculum, teachers' credentials, etc… but to our knowledge, there is no official data on school quality in private and public institutions. Like in other countries, parents may opt for private schools for a variety of reasons, which may include perceptions of better quality, but also

curricular (e.g., English classes) and extra-curricular activities (e.g., sports), ease of access (e.g., transportation in urban areas), or prestige (e.g., reputation, school uniforms).

For older students, entries into *lycee*, and from *lycee* to post-secondary education are also governed by exams. After *college*, students may alternatively undertake technical and vocational training, which can last up to 7 years.

Returns to education. Although we could not find any solid data on the expected returns to different levels of educational attainment, families clearly invest in child education with expectations of socio-economic returns. Official school fees at public schools are quite modest (in the order of 2,000 Riels, the equivalent of $.50), but conceal a much different reality. Teachers, whose salaries have remained very low, are widely reported to collect small fees directly from students on a daily basis (in the order of 300 Riels). Furthermore, some also run after-school tutoring (*cours prive*). These practices blur to some extent the distinction between public and private institutions.

Altogether, the direct costs to the family are substantial when textbook and other supplies, pocket money, transportation, and supplemental tutoring (and "gifts" to teachers) are added altogether. According to the 2004 Cambodian Socio-Economic Survey (World Bank 2005), the average annual expenses per student ranged from R15,000 ($3.75) for a first-grader to R124,000 ($31) for a ninth-grader in rural areas, the range in urban areas being from R132,000 ($33) to R615,000 ($153.75). These expenses are quite substantial when compared to the income levels discussed above (again, about a third of the population living with less than $1 a day per person, another third between $1 and $2 a day per person) and fertility levels discussed below (about five children per woman on average).

While the gender gap in educational achievement is likely closing, 68.3% of women over the age of 25 have not completed a primary education, according to the GPC 1998 data, compared to 51% of men (National Institute of Statistics 1999a). Among more recent cohorts, a primary education is more common for both boys and girls, but it is likely that some educational gap remains at the secondary education level. It is still common to hear of girls leaving school to work and help with their brothers' educational expenses, but the prevalence of this phenomenon is not known with any precision.

2.3.b Labor Market

Age-grading in the labor market. The legal age of entering the labor market is age 15. Impressionistic news reports suggest less than perfect compliance even in the formal, industrial sector, but as the issue has become politically sensitive, reliable data are sensitive and not made readily available. The activity figure from GPC 1998 is a 4.5% participation rate among 10 to 14 year-olds (NIS, 1999a). The rate is higher in rural areas (4.8%) and likely corresponds to a large extend to agricultural activities within the family unit, but the rate is still 2.7% in urban areas. Some of the working 10 to 14 year-olds in urban areas may be participating to the informal labor market, which clearly exists in urban Cambodia, but whose size relative to the formal labor market is not documented.

Activity rates peak up fairly quickly after age 15, reaching 60.7% among 15 to 24 year-olds. For the 25 to 34 year-olds, the age-specific activity rate is 89.1%, that is, close to its peak among 35 to 44 year-olds (90.5%).

Opportunity structure of the labor market for women. Among persons aged 7 and over, the crude activity rate of women (54.6%) is very close to the crude activity rates of men (56.5%, NIS 1999a). In fact, the crude activity rate is higher for men than for women in urban areas (55.6% v. 43.4%), but the rates are comparable in rural areas (56.6% v. 56.7%) where the large majority of Cambodians

live. Furthermore, the age structure of the population favors the crude activity rate of women (KRR mortality was higher for men, so the age structure is even younger for men than it is for women). Even in rural areas, female age-specific activity rates plateau at 87.7% among 35 to 44 year-olds, while male rates reach 98.7% in the same age group. In rural areas, rates for the same age groups are 68.3% for women, and 97.3% for men.

2.3.c Family

Family organization. The dominant family arrangement is the nuclear family, with 56.8% of households being nuclear according to the GPC 1998 data (Demont and Heuveline 2008). Women living alone with children, rather than within an extended family, remain relatively rare (9.5% of all households in 1998). The fairly large average household size, above 5 persons per household, therefore reflects mostly a high total fertility rate (estimated at 5.3 children per woman at the time of the GPC 1998, NIS 1999b.) Contrary to average fertility levels, the average household size is larger in urban than in rural areas, which is due rather to the higher prevalence of extended households in urban areas.

Family formation. There are strong social norms for men and women to get married, and this was manifested clearly after the KRR. In spite of a severe gender imbalance on the marriage market, marriage remained nearly universal even among the pre-KRR cohorts (however, many widows were not able to remarry). The median age at marriage for women appears to have remained stable at about 20 years of age through the 1980s and 1990s (NIS 2001). Education was found to decrease the likelihood of marriage in Cambodia (Heuveline and Poch 2006), or more specifically, to delay marriage as, again, it remains nearly universal. Out-of-wedlock fertility is expected to be very rare, which our own analyses below confirm.

With respect to living arrangements, the custom is for the groom to live with his future parents-in-law for a period of time before the actual wedding, and for the newly-weds to remain in the bride's family until they can establish an independent household (Heuveline and Poch 2007). Today, data suggest that this post-marriage arrangement has endured to some extent, although with a great deal of pragmatism with respect to which set of parents the newly-weds may cohabit with and for how long (Demont and Heuveline 2008).

Contraceptive knowledge and use has spread very rapidly since the mid-1990s. As of 2000, 23.0% of women aged 15 to 49 were using some method of contraception, as well as 37.4% of currently-married women in the same age range (NIS 2001). Contraceptive use increases rapidly with age to reach over 46% among currently-married 30 to 39 year-olds.

The vast majority of these women are using a modern method of contraception (32.4% v. 8.7% for traditional methods among currently married women, total exceeding the above 37.4% because multiple methods can be reported). Nonetheless, unwanted fertility appears high, with as many as 23.5% of births in the five previous years being reported as not wanted in a 2000 survey (NIS 2001). The proportion reported as unwanted increases dramatically with birth order, from 3.2% for first births to 41.4% for fourth or higher-order births.

3. DATA

Our data are from the GPC 1998, of which a sub-sample is available online at Integrated Public Use Microdata Series-International (IPUMS-I), a web-based data dissemination system. The database, provided by the NIS, is a self-weighted, 10 per cent sample of the *de facto* census population, consisting of 1,141,254 individuals. These included 150,415 males and 154,269 females between the exact age of 12 and 25 years (referred to here as 12 to 24 year-olds).

To study the transition to adulthood in Cambodia, we first analyze the transition from studying to working. From the GPC 1998 questionnaire, is considered studying anyone who reports attending school or an educational institution at the time of the census. Is considered to be working, anyone who reports her main activity over the last year as being employed. Therefore, one can be considered as both studying and working, although in this case working has been the main activity over the year past.

Our first independent variables are *Age* and *Place of residence* (urban or rural, as defined in section 2.1 above). To study socio-economic disparities in this transition, we then construct two categorical variables representing the *Highest parental education level* (by comparing the level of paternal and maternal education) and *Father's occupation*. Unfortunately, the GPC 1998 only include questions on the educational level and occupation of each individual in the household, but not on her parents' education or occupation. Thus we can only obtain that information for individuals whose father can be clearly identified, and as the GPC 1998 data only indicate an individual's relationship to the head of the household, this is only possible when either the child or the father is the head of the household, and the two cohabit. As mentioned above, multi-generation households are far less prevalent than nuclear households, and therefore, when father and child cohabit, it is most often with an unmarried child and with the father as head of the household. Unfortunately from the standpoint of our analyses, leaving the parental household is likely linked to the transition from school to work, and for those who have left the parental household, the data on parental education and occupation will be missing. Restricting the analyses to individuals with complete information would therefore entail selective censoring, and to limit the extent of this problem, we instead restrict our sample to ages 12 to 18 years for females and ages 12 to 20 years for males, and add a dummy variable to indicate whether the individual is a *Child of the head of the household*.

The next dependent variable is whether a person has married and is the head of the household, or the spouse thereof. The first two independent variables are, as above, *Age* and *Place of residence*. To

study socio-economic disparities regarding these transitions, the selective censoring described above is even more problematic and actually precludes using the parental education and father's occupation variables. Instead we define an individual's *Own education level* which is relative to the distribution of educational attainment for individuals of the same gender and annual birth cohort. Those who have attained the grades between (1) the grade corresponding to the lower third , and (2) the grade corresponding to the higher third of the gender-specific, grade-per-age distribution are categorized as having a median education level (these two grades included). Those who have not yet attained the lower of these two grades are categorized as at a lower education level, and those who are already beyond the higher of these two grades are categorized as at a higher education level.

The last models are only estimated for women, and their dependent variable is having married and/or having given birth at least once. The independent variables in these models are the same as above for having married and/or being the head of the household, or the spouse thereof. All these models are estimated with multi-nominal logistic regression. In the first models, the reference category of the dependent variable is to be studying only (and not working). In the second models, the reference category is being never married and being neither the head of a household, nor the spouse thereof. In the third models, the reference category is to be never married and to have never given birth.

4. RESULTS

4.1 Work and Study Transitions

We begin by describing our first dependent variables (independent variables are also described in Appendix Table A1). With respect to work and study, 12 to 24 year-old males are almost evenly distributed between those who are only studying (49.2%) and those who are only working (48.0%). Very few males have dropped out of school and are not working (0.8%), or are combining work and study (2.0%). With respect to age the crossover occurs around age 17, when slightly more males are working only as opposed to studying only (Figure 1, bottom graph). Already at ages 12 to 14, over 20% of males

are working only. The proportion increases steadily until age 20, reaching 80% at that age, and making slower progress thereafter.

There are more women only working (63.7%) than only studying (34.2%), and again very few neither working nor studying (0.3%), or both working and studying (1.8%). Figure 1 (top graph) clearly shows that women are leaving school for work earlier than men. At age 12, already one in four reports working only, and more than half are working only at age 15. The age-specific proportions nearly plateau at age 20, increasing only from 92.2% to 95.7% between age 20 and age 24. The male and female age patterns after age 14 show that Cambodian students typically drop out of school throughout *college* or *lycee*, and some (allowing for retention for a year or two) as early as primary school. This rapid attrition likely relates to the rapid increase in educational costs per grade noted earlier. Studying beyond *lycee* remains very rare, and even rarer is combining work and study. Although we have no data to leverage on this issue, this likely reflects the limited opportunities to combine school with work.

Figure 2 provides the estimated coefficients of the odds ratios of other statuses relative to the reference status of being in school and not working. As shown in Figure 1, the statuses (1) neither studying, nor working and (2) both working and studying are fairly rare, for males as well as for females. Therefore we focus our discussion on the dichotomy working only v. studying only. We find first that, for both males and females, the odds of working rather than studying are higher in rural than in areas. Children of more educated parents are less likely to be working rather than studying, and this effect of parental education is similar for boys and for girls. This was of course to be expected, but the main gaps appear to be between the children of parents who completed elementary school and those who did not, and those who had some tertiary education and those who had none, with relatively difference between just completing elementary school and also having some secondary education. We should remember, however, that tertiary education is very rare in Cambodia, with less than .4 per cent of all parents reporting some, hence a very selected group in many respects.

We also find the effect of father's occupation to be the same for both genders. Children of skilled workers, manual and non-manual, are less likely than the children of manual, unskilled workers to be working rather than studying. On the contrary, children of agricultural workers are more likely than those of manual, unskilled workers to be working rather than studying. Overall, the effects are not surprising in their direction, and relatively modest in size. Without a good study of social stratification in contemporary Cambodia at hands, it is impossible to conclude whether the modest effects reflect a relatively egalitarian educational system or whether the occupational categories fail to capture social stratification in Cambodian. The vast income inequalities, as measured by the Gini coefficient, and far-from-trivial costs of education, as noted above, would suggest some stratification along parental income, which is unfortunately not measured in these data. Residence and parental education alone seem to indicate, nonetheless, that individuals of higher socio-economic background and of urban areas are less likely than their same-age peers to be working rather than studying, and this regardless of gender.

3.2 Marriage and Head of Household Transitions

Women also transition into marriage and/or becoming the head of their household (or the spouse thereof) sooner than men (Figure 3). Among 12 to 24 year-olds, 88.0% of men are neither married nor head of a household, compared to 78.2% for women. For women, these transitions are very rare before age 15, but half of the women marry and become the head of a household, or his spouse, between ages 17 and 24 (from 4.4% at age 17 to 55.7% at age 24). By age 24, only 24.1% of women are neither married nor head of a household. For men, the proportion is 36.9% at age 24, and either transition rarely starts before age 18. At age 18, 94.9% of men are still neither married, nor the head of a household.

Also noteworthy, for men under 21 and women under 19, the proportion being either married or the head of a household (or the spouse thereof) is larger than the proportion being both. Being an

unmarried head of a household being relatively rare in Cambodia, especially for women, this reflects the above described custom for newly-weds to live with either set of parents before setting their own independent households. Our results show that this practice remains more common among younger couples (at the time of marriage) than among older ones. For women, the proportion being either (1) married or (2) the head of the household or his spouse (which means (1) but not (2), typically) peaks at age 22, after which the number of new brides cohabiting with her parents or her in-laws is offset by the number of wives leaving such living arrangements to establish new households with their husbands.

If Figure 3 suggests a relative disconnect between starting a new family and starting a new household, comparing Figures 1 and 3 also suggests some disconnect between entering the productive sphere (school to work transition) and entering the reproductive sphere (marrying and becoming a parent). For women in particular, we noted earlier that more than half are already working by age 15, but the median age at marriage is between ages 23 and 24. This is not a new phenomenon in Cambodia since the median age at marriage has only risen slightly in recent years while formal education for girls has expanded. These out-of-school, unmarried women were traditionally performing unpaid work at their parental home (helping with household chores and caring for younger siblings, or with agricultural work), but in recent years they have been critical to the development of the garment industry in Cambodia. The only events marking the transition to adulthood that appear tightly connected in Cambodia are marriage and first birth.

Figure 4 provides the estimated coefficients of the odds ratio of being ever married and/or the head of a household (or the spouse thereof) relative to being never married and not the head of a household. For both males and females, the odds of having married and/or become the head of a household, or the spouse thereof, are higher in rural areas, although the urban/rural differential is larger among males. The effects of one's education are also in the same direction for both genders but

stronger among males. Specifically, more educated individuals are less likely to have ever married and/or to be the head of a household, or spouse thereof.

Comparing the coefficients for the two distinct odds ratios above also allows us to assess the odds ratio of (1) having ever married and (2) being the head of a household, or the spouse thereof, relative to being either (which, most likely, is (1) but not (2) as noted above.) Doing so suggests that the odds ratio of being both rather than either ever married or the head of a household, or the spouse thereof, are lower in urban than in rural areas, and for more educated individuals. This applies to both men and women, although the differences are more marked for men. That the residential status and social origin of men may determine the odds of establishing an independent household more than those of women is plausible since men are typically the new household heads. Perhaps less intuitive than the educational differences, the urban/rural difference is nonetheless consistent with earlier findings on the greater prevalence of extended families in urban areas in Cambodia (Demont and Heuveline 2008).

3.3 Marriage and Parenthood Transitions

Figure 5 shows the proportion of women who have become a parent by single year of age, and among those, the age-specific proportions of currently married parents. Overall, 85.3% of females 12 to 24 years of age have never had a child. The transition is quite common after age 18, however, and the proportion of non-parents declines to 51.0% at age 22 and to 34.6% at age 24. Having a child outside of marriage remains quite rare in Cambodia, and unmarried women who had children only amount to 1.2% among 12 to 24 year-olds. The proportion reaches 4.3% among 24 year-olds, but mostly because of the increase in divorce and widowhood, and never-married women only account for 15% of the unmarried with children in that age group.

Figure 6 provides the estimated coefficients of the odds ratios of being an ever-married or being a never-married parent relative to not being a parent. The odds of being a married or an unmarried parent rather than not a parent are higher in rural than in urban areas, and for less educated rather than

more educated women. The urban/rural differential is larger for being a married parent v. not a parent than the differential for an unmarried parent v. not a parent, however. As regards education, the differentials are as large for either marital status concerning the difference between more educated women (top third of the educational distribution), and women with average education. On the contrary, the odds of being a never-married parent rather than not a parent are significantly higher for less educated women (the bottom third of the educational distribution) than for women of average education.

As above, comparing the coefficients for the two distinct odds ratios also allows us to assess the odds ratio of being a never-married parent relative to an ever-married parent. This comparison shows that the odds of being a never-married parent rather than an ever-married parent are higher in urban areas and for less educated women (no difference between being of average or higher education). To sum up, the transition to parenthood is earlier in rural areas and later for more educated women. That this transition occurs outside of marriage remains relatively rare and largely limited to less educated, urban women.

4. DISCUSSION

The various indicators of the transition to adulthood examined above suggest that the transition is happening relatively early in Cambodia, and even earlier for women than for men. Because of the peculiar age structure of Cambodia's population, with a marked deficit between the ages of 19 and 24, the overall proportion having completed some of these transitions may not be particularly high among 12 to 24 year-olds. Considering single-year age groups, however, provides a different picture. More males are working only rather than studying only by age 17—age 15 for females, most of whom are married with at least one child by age 23. There is only one aspect for which the transition to adulthood is not that early in Cambodia, and it is establishing an independent household. Because of the enduring tradition that newly-weds cohabit with either set of parents just after marriage, especially in urban

areas and among more educated individuals, it is not until age 24 that a majority of women are married and either the head of a household or his spouse. For men, at age 24, the proportion both married and either the head of a household or her spouse is still only 42.4%. In Cambodia, there is not a strong connection between these two status transitions, from school to work, and from parental to own (or spouse's) household.

Looking at the individual-level determinants of these transitions, the models presented here perform reasonably well (the pseudo-R2s for model 1 are .177 for males and .160 for females, .301 for males and .346 for females in model 2, and .360 for model 3), in spite of their limited number of independent variables. Improving substantially on these parsimonious models proved difficult, and was only possible with the addition of variables obviously correlated with the dependent variable, but for which the direction of the causal mechanisms was problematic (e.g., own education in model 1, being a parent in model 2, household size in model 3). Therefore, more complex models are not presented here.

Our analyses of these individual-level determinants besides age yield a consistent picture. The transitions from school for work, from single to married, from parental to own household, and to parenthood are all happening faster in rural areas and for children of lower socio-economic background (measured, when possible, by parental education and father's occupation, otherwise by one's own educational level). These findings should not be particularly surprising, with the possible exception that even when married, leaving the household of one's own parents or in-laws to establish an independent household with one's spouse takes longer in urban areas and for individuals of higher socio-economic background. Previously documented, the urban/rural differential can probably be linked to the housing crunch in urban areas in the late 1990s (Demont and Heuveline 2008). The educational differentials are more difficult to characterize and in several instances they appear non-linear. We hypothesize that this reflect two effects of education that in some cases act in the same direction, but in some other cases in opposite directions. Additional years of education contribute to delay the other transitions (e.g.,

becoming a parent), but they also contribute to increase one's socio-economic standing, which in turn increases the stakes and eventually likelihood of following the normative timing of transitions. In this respect, the normative family formation sequence in Cambodia seems to remain for children to live with their parents until marriage and for newly-weds not to establish their own independent household until a few years after marriage, in spite of having, most likely, become parents in-between.

References

Asian Development Bank. 2008. *Key Indicators for Asia and the Pacific*. Available online at www.adb.org/statistics

Demont, F. and P. Heuveline. 2008. "Diversity and Change in Cambodian Households, 1998-2006," Journal of Population Research 25(3): 287-313.

Heuveline, P. and B. Poch. 2006. "Do Marriages Forget their Past? Marital Stability in Post-Khmer Rouge Cambodia," *Demography* 43(1): 99-125.

Heuveline, P. and B. Poch. 2007. "The Phoenix Population: Demographic Crisis and Rebound in Cambodia," *Demography* 44(2): 405-426.

Heuveline P. 1998b. 'Between one and three million': Towards the demographic reconstruction of a decade of Cambodian history (1970-79). *Population Studies* 52(1):49-65.

Kiernan B. 1996. *The Pol Pot regime*. New Haven and London: Yale University Press.

Ministry of Education, Youth and Sports. 1997. *Education Statistics, 1996-97*. Phnom Penh : RGOC, UNESCO, and UNDP.

National Institute of Statistics. 1999a. *General Population Census of Cambodia 1998: Final Census Results.* Phnom Penh, Cambodia: National Institute of Statistics, Ministry of Planning.

_____. 1999b. *General Population Census of Cambodia 1998: Analysis of Census Results, Report 1, Fertility and Mortality.* Phnom Penh, Cambodia: National Institute of Statistics, Ministry of Planning.

_____. 2001. *Cambodia Demographic and Health Survey 2000*. Phnom Penh, Cambodia and Calverton, Maryland, USA: National Institute of Statistics, Directorate General for Health [Cambodia], and ORC Macro.

Sliwinski M. 1995. *Le génocide Khmer Rouge: une analyse démographique*. Paris: L'Harmattan.

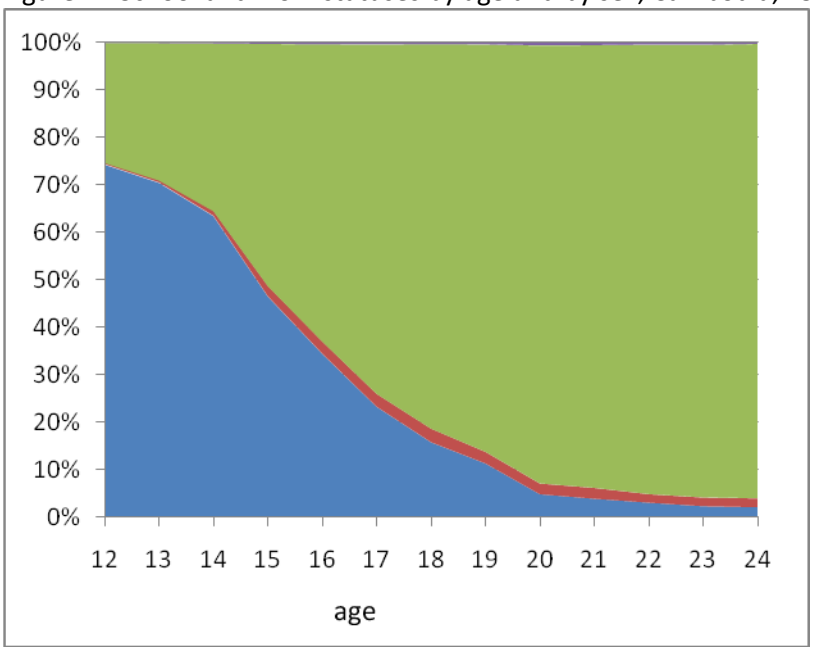
United Nations Development Programme. 2001. *Human Development Report 2001*. New York, NY: United Nations.

_____. 2007. *Human Development Report 2007/2008*. New York, NY: United Nations.

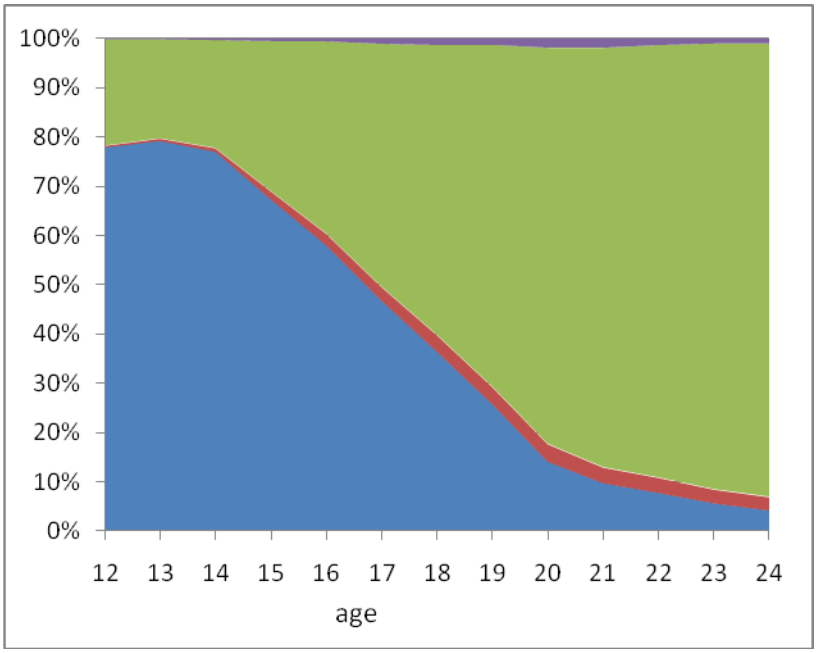
World Bank. 2001. *World Bank Development Report 2000/2001*. Washington, DC: The World Bank.

_____. 2005. *Cambodia: Basic Education for All*. The World Bank Human Development Sector Reports, East Asia and the Pacific region. Washington, DC: The World Bank.

Figure 1: School and work statuses by age and by sex, Cambodia, 1998.



Women

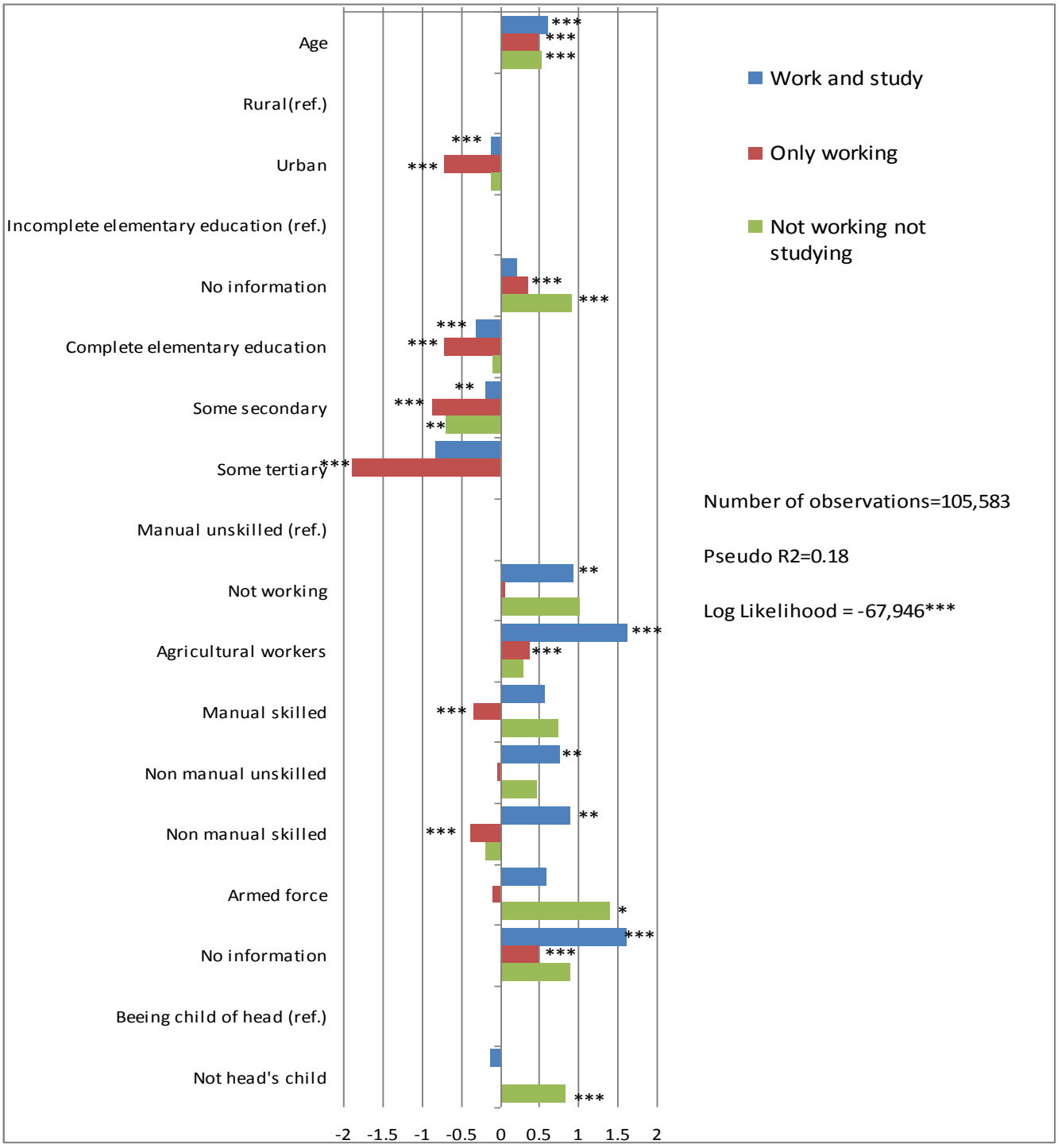


Men

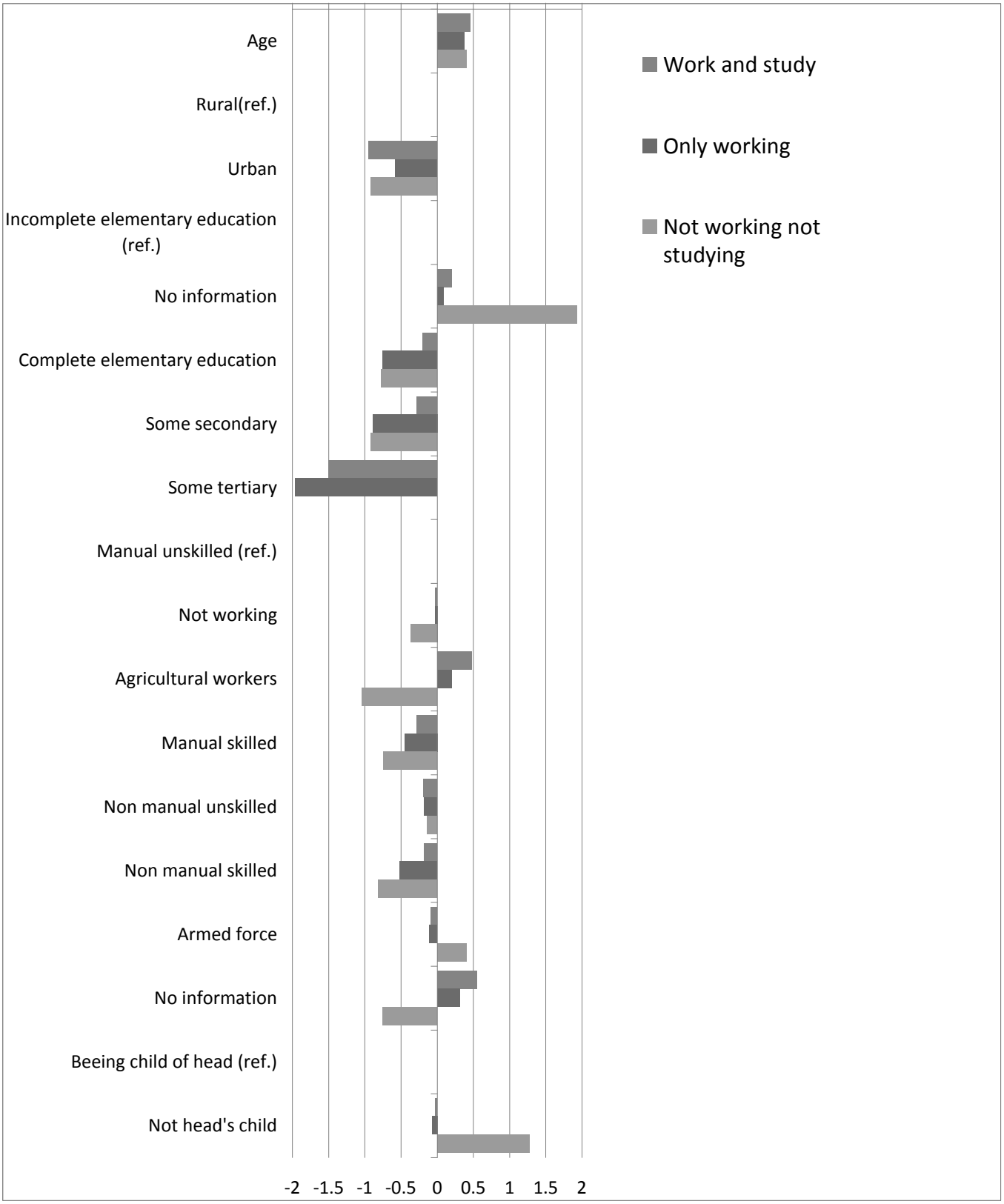
Statuses (from bottom up): only studying, studying and working, only working, neither studying nor working.

Source: Authors' calculations from the GPC 1998 data on IPUMS-I.

Figure 2: Multinomial logistic regression coefficients predicting the odds ratio of different school and work statuses relative to being in school only, by age and by sex, Cambodia, 1998.



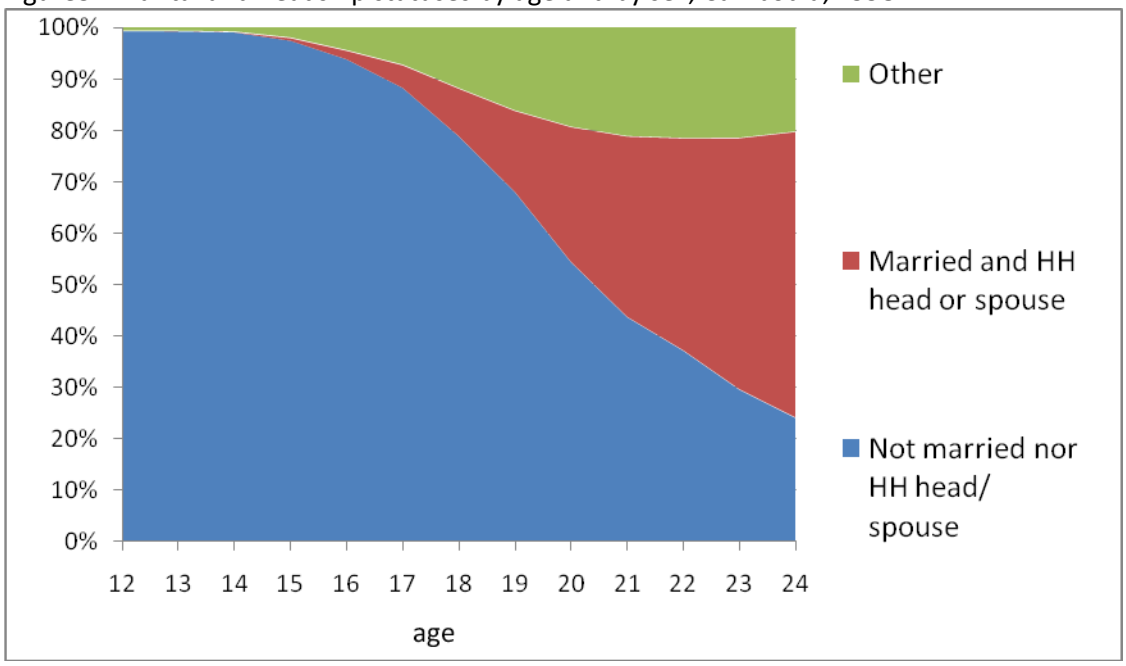
Women



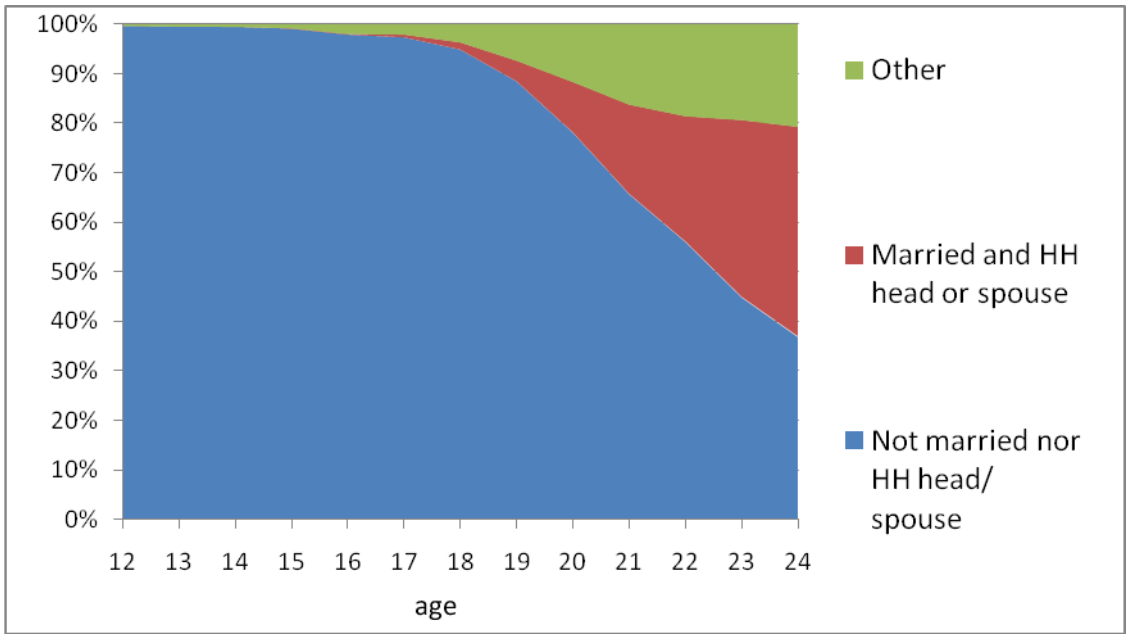
Men

Source: Authors' calculations from the GPC 1998 data on IPUMS-I.

Figure3: Marital and headship statuses by age and by sex, Cambodia, 1998.



Women

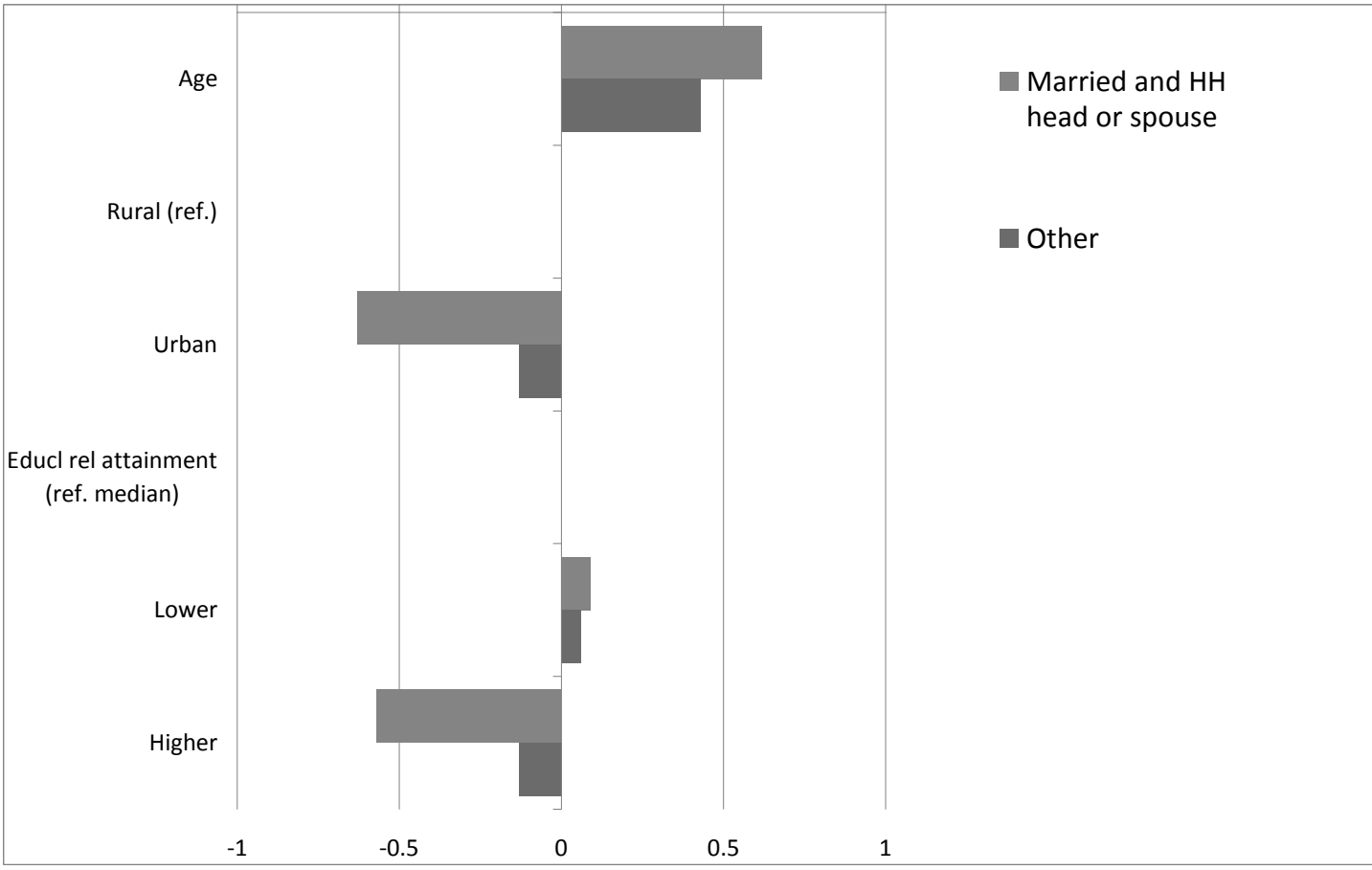


Men

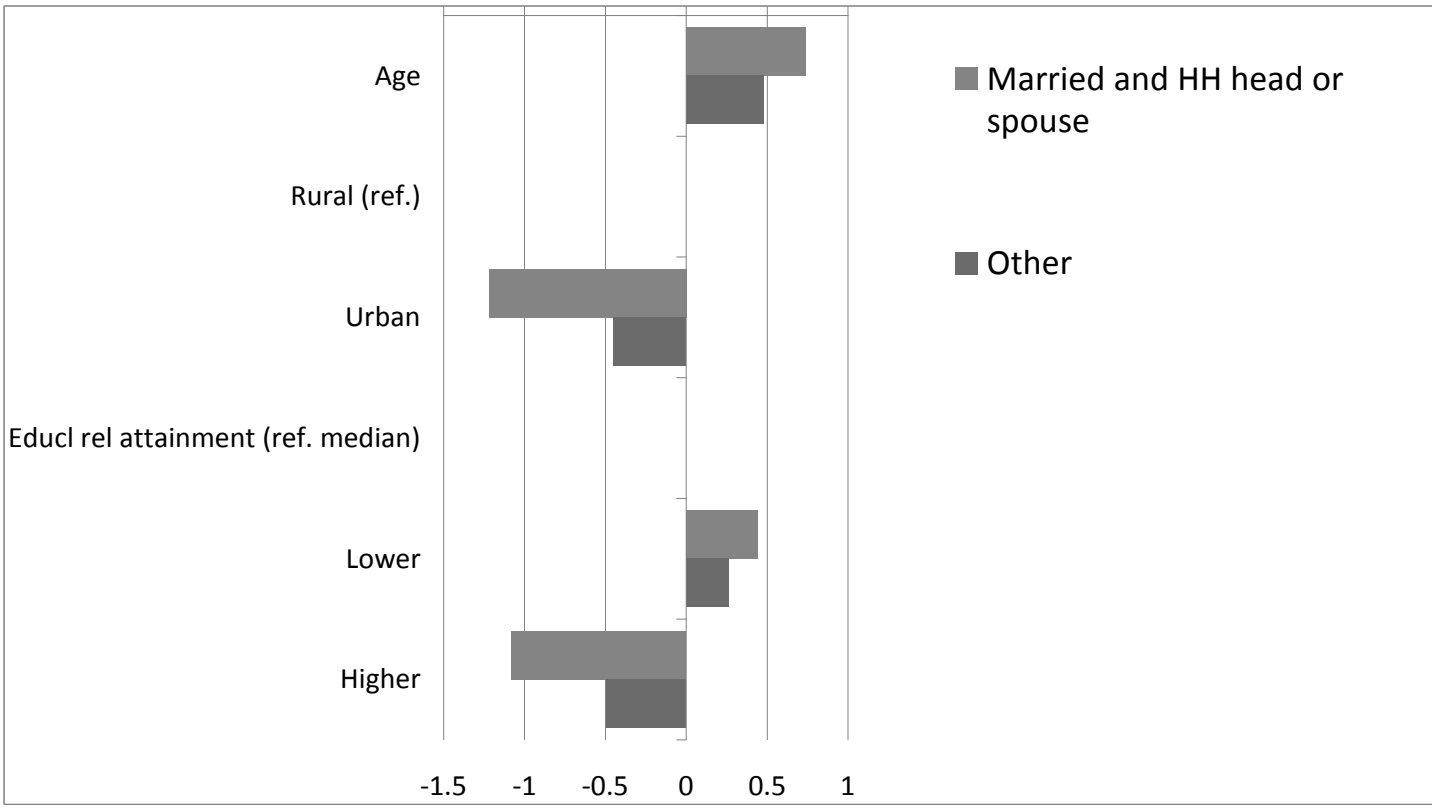
Note: "Other" status corresponds to being married, but neither the head of household nor a spouse thereof, or to being an unmarried head of the household.

Source: Authors' calculations from the GPC 1998 data on IPUMS-I.

Figure 4: Multinomial logistic regression coefficients predicting the odds ratio of different marriage and headship statuses relative to being neither married nor the head of a household, by age and by sex, Cambodia, 1998.



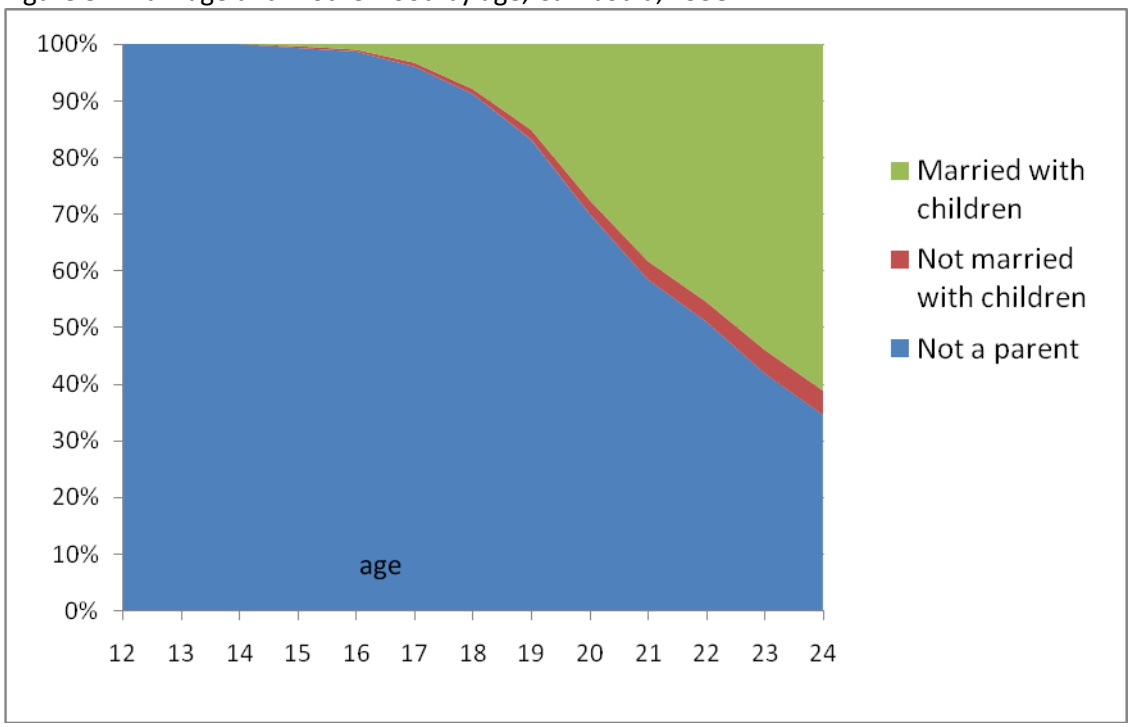
Women



Men

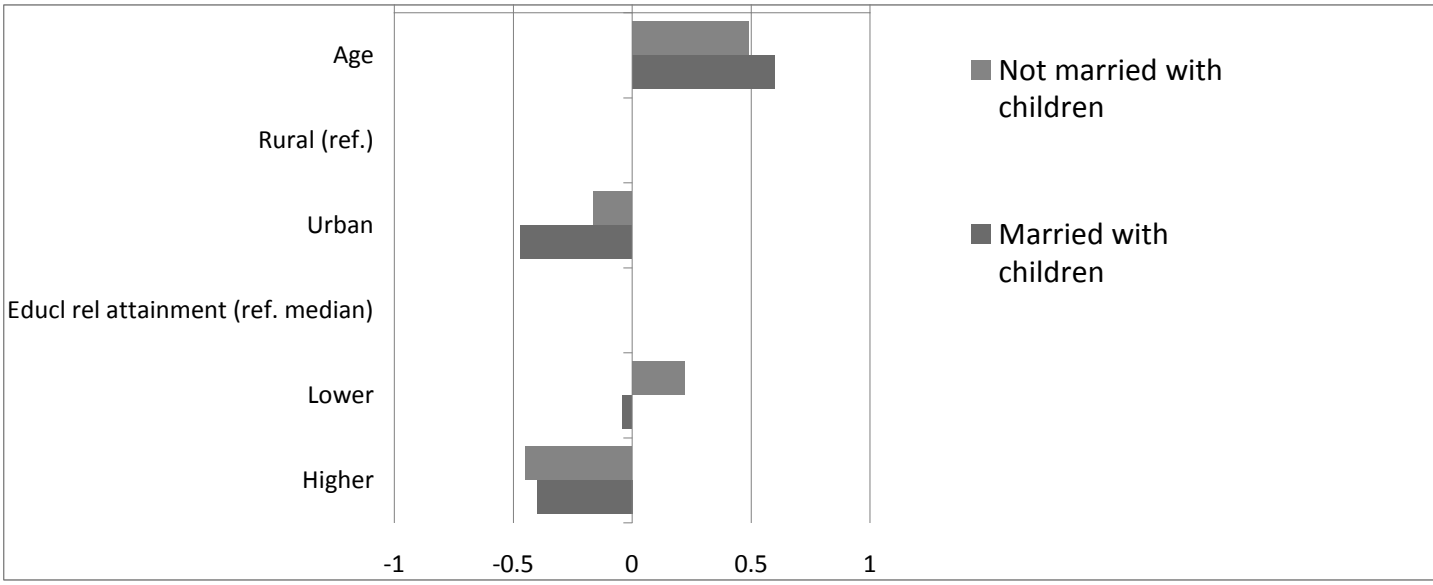
Source: Authors' calculations from the GPC 1998 data on IPUMS-I.

Figure 5: Marriage and motherhood by age, Cambodia, 1998.



Source: Authors' calculations from the GPC 1998 data on IPUMS-I.

Figure 6: Multinomial logistic regression coefficients predicting the odds ratio of different marriage and parenthood statuses relative to not being a parent, by age, women only, Cambodia, 1998.



Source: Authors' calculations from the GPC 1998 data on IPUMS-I.

APPENDIX

Table A1: Sample characteristics and descriptive statistics for the independent variables, 12 to 24 year-olds, Cambodia, 1998. Percent distribution, except for age (mean, in years)

Variable		Mean or distribution
Age		16.85
Sex		
	Men	49.37
	Women	50.63
Place of Residence		
	Rural	83.38
	Urban	16.62
Highest Parental Education Level		
	No information	12.51
	No schooling or incomplete elementary	59.92
	Complete elementary education	11.90
	Some secondary	15.30
	Some tertiary	0.37
Father's Occupation		
	No information	29.38
	Not working	2.37
	Agricultural Worker	51.79
	Manual unskilled labor	2.23
	Services unskilled labor	5.00
	Manual skilled labor	5.65
	Services skilled labor	2.50
	Armed force	1.09
Education attainment relatively by age (both sex)		
	Lower	22.50
	Median	55.81
	Higher	21.69
Being child of head		
	Not head's child	26.56
	Yes head's child	73.44
Number of observations		304, 684

Source: Authors' calculations from the GPC 1998 data on IPUMS-I.

Table A2: Estimated Probabilities of Different School and Work Statuses by Gender. Cambodia, 1998

	Women				Men			
	S	W-S	W	Neither	S	W-S	W	Neither
Age								
15	0.4669	0.0162	0.5157	0.0012	0.6555	0.0133	0.33	0.0012
19	_	_	_	_	0.2705	0.0381	0.6865	0.0048
Place of Residence								
Rural	ref	ref	ref	ref	ref	ref	ref	ref
Urban	0.6147	0.009	0.3748	0.0015	0.7208	0.0083	0.27	0.0009
Parental Education								
No information	0.3973	0.0163	0.5841	0.0023	0.5896	0.0176	0.3849	0.0078
No schooling or incomplete elementary	ref	ref	ref	ref	ref	ref	ref	ref
Complete elementary education	0.6187	0.0162	0.3637	0.0015	0.7477	0.0159	0.2354	0.001
Some secondary	0.6418	0.0186	0.3387	0.0009	0.766	0.0153	0.2178	0.0009
Some tertiary	0.8476	0.0125	0.1399	0	0.9152	0.0054	0.0793	0
Father's Occupation								
Not working	0.4448	0.0375	0.5145	0.0032	0.6189	0.0153	0.3647	0.0011
Agricultural Worker	0.4192	0.0317	0.5479	0.0013	0.5855	0.0189	0.3947	0.0009
Manual unskilled labor	ref	ref	ref	ref	ref	ref	ref	ref
Manual skilled labor	0.5391	0.0311	0.0029	0.427	0.7063	0.0138	0.279	0.0009
Services unskilled labor	0.4693	0.0323	0.4964	0.0019	0.65	0.0138	0.3347	0.0015
Services skilled labor	0.5422	0.0437	0.413	0.0012	0.7207	0.0154	0.263	0.0008
Armed force	0.4811	0.0287	0.4852	0.005	0.636	0.0148	0.3467	0.0025
No information	0.3793	0.0385	0.5803	0.0018	0.5601	0.0204	0.4186	0.0009
Being child of head								
Not head's child	0.4686	0.0142	0.5146	0.0025	0.6219	0.0155	0.3579	0.0046
Yes head's child	ref	ref	ref	ref	ref	ref	ref	ref

Note: Studying (S), Working and Studying (W-S), Working (W), and Not Working or Studying (Neither)

Source: Authors' calculations from the GPC 1998 data on IPUMS-I. The probabilities are estimated keeping all the other covariates at their mean value.

Table A3: Estimated Probabilities of Different Marriage and Headship Statuses by Gender. Cambodia, 1998

		Women			Men		
		None	Other	Both	None	Other	Both
Age							
	15	0.9563	0.0298	0.0138	0.9877	0.0104	0.002
	19	0.7404	0.1306	0.1291	0.8983	0.0656	0.0361
Place of Residence							
Rural		ref	ref	ref	ref	ref	ref
Urban		0.9142	0.0599	0.0259	0.9811	0.0163	0.0026
Education attainment relatively by age							
Lower		0.8864	0.0672	0.0463	0.9617	0.0285	0.0098
Median		ref	ref	ref	ref	ref	ref
Higher		0.9115	0.0601	0.0284	0.9808	0.0161	0.0031

Note: Not Married nor Head/spouse in household (None), Either Married or Head/spouse in household (Either), Married and Head/spouse in a household (Both).

Source: Authors' calculations from the GPC 1998 data on IPUMS-I. The probabilities are estimated keeping all the other covariates at their mean value.

Table A4: Estimated Probabilities of Different Marriage and Parenthood Statuses. Cambodia, 1998

	Women		
	No child	Single	Married
Age			
15	0.9848	0.0023	0.0129
19	0.8653	0.0142	0.1205
Place of Residence			
Rural	ref	ref	ref
Urban	0.9676	0.0051	0.0272
Education attainment relatively by age			
Lower	0.9546	0.0068	0.0386
Median	ref	ref	ref
Higher	0.9664	0.0041	0.0294

Note: Not a mother (No child), Never Married Mother (Single), and Ever Married Mother (Married).

Source: Authors' calculations from the GPC 1998 data on IPUMS-I. The probabilities are estimated keeping all the other covariates at their mean value.