Changing sexual attitudes in urban East Asia: extramarital births and premarital conception in Hong Kong

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In much of the western world, where to normative power of marriage as a 'key' to childbearing has waned significantly and co-habitation has become accepted, premarital conception is far from a 'hot topic'. However, in East Asia, where childbearing within marriage is still very much the norm and extramarital births are rarer, premarital conception is an important 'grey area' where significant changes can tell us much about societal- and individual-level changes regarding attitudes towards marriage. In this paper, we analyse new data from the Hong Kong Birth Registers and find a significant increase in both the number of extramarital births and premarital conceptions - which account for almost 30% of all first births in the territory. This finding forces us to re-evaluate our understanding of the marriage system in Hong Kong and asks new questions about changing gender roles and sexual attitudes.

Extramarital births and premarital conceptions in Hong Kong

Hong Kong SAR has one of the lowest birth rates in the world. Like most other East Asian settings, illegitimacy rates are growing, but still very low (around 5%) compared to many Western regions.[1] In 2006, Paul Yip noted that, for Hong Kong, 'the fertility rate will neither go back to 1 in the short and medium term nor rise above 1 in the longer term unless there is a significant fertility rebound, or a substantial increase in the number of births out of wedlock, or a consistent rise in the proportion married. Judging by the past reproductive behaviours and marriage habits, these prerequisite conditions will be most unlikely to occur".[2] Changing levels and attitudes towards extramarital births and premarital conception could be indicative of hugely important changes in gender roles, sexual behaviour and the institution of marriage.

The relationship between premarital conceptions, marriage and illegitimacy is far from clear. For example, there is almost certainly a 'spectrum' of relationships, including

1. 'Shotgun marriages': where marriage is forced by either family or social pressure as a result of accidental pregnancy
2. Decision change: a couple decides to get married
3. Timing change: a decision to marry has already been (provisionally made), but the onset of pregnancy affects the timing of marriage
4. Marriage organised: a couple has already planned to marry and set a date. The pregnancy (either planned or accidental) simply fits into this plan.

Only further qualitative/survey work will allow us to fully understand these dynamics. However, quantitative evidence *can* allow us to explore the *context* of these changes by showing the extent to which such pregnancies occur.

Data and progress of work

In this project, we will analyse data from the Hong Kong Births Register from 1974-2009. Births are automatically registered by the state after information is passed by hospitals. Furthermore, individuals are allowed to register free of charge within 42 days of birth. At the moment, we have completed data collection and a pilot analysis comparing data from 1998 (N and 2009. Full analysis of the entire data-set, along with multi-variate regression will be completed by February 2012. We believe, however, that the striking results and visible changes within just ten years are clear and warrant this proposal.

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[1] Prioux, F. (2005) Recent demographic developments in France. *Population* 60, 371-414.

[2] Yip, P. et al. (2006) An analysis of the Lowest Total Fertility Rate in Hong Kong SAR, http://www.ier.hit-u.ac.jp/pie/Japanese/seminar/workshop0612/yip.pdf

Extra-marital births

Extra-marital births are explicitly listed as such. In 1998, of 52,977 births recorded in Hong Kong, 2,686 (or 5.07%) were to non-married parents. By 2009, this figure had risen to 7.91% (6,497/82,095). Meanwhile, if we consider only first births, these figures change to 6.12% in 1998, rising to 10.02% by 2009. Finally, while the birth registration system in Hong Kong is robust, these births are almost certainly the most likely to be missed. As such, these should be regarded as low estimates.

Pre-marital conceptions (PNC)

In order to identify premarital conceptions, it was necessary to impute a marriage data from the month and year give. Here, the central date of each month was given. The marriage date was then 'subtracted' from the birth date to reveal the interval ±~15 days. We used data from Singapore to identify a mean gestational age (272 days) and an 80% confidence interval (261 to 280 days).[3] Finally, to allow for the possible effect of miscalulting the interval owing to the imputed marriage date, we substracted a further 7 days. As such, the final 'cut-off' interval was set at 254 days. This is, perhaps, an overly cautious approach and, as such, the results should be interpreted as a 'minimum'. The overall results can be found in Table 1 below. Firstly, premarital conceptions are clearly a very important component of first births in Hong Kong, accounting for almost 20%. Clearly, there has been a significant change in just over a decade.

Table 1: PNCs and extramarital first birth, Hong Kong 1998 and 2009

	1998		2009	
	N	%	N	%
Total first births (TFBs)	**26,932**		**38,343**	
TFBs <272 days	4,161	15.45	7,958	20.75
TFBs <261 days	3,985	14.80	7,680	20.03
TFBs <254 days	**3,904**	**14.50**	**7,513**	**19.59**
Extramarital first births*	**1,648**	**6.12**	**3,921**	**10.23**
TOTAL PNCs and extramarital first births	**5,552**	**20.61**	**11,434**	**29.82**

* includes births where the marriage is listed as occurring more than 15 days after the birth (i.e. where the interval is <-15)

This increase in PNCs should also be considered in the context of shortened intervals between marriage and first birth. This mirrors changes identified in Mainland China by Feng and Quanhe (whose methodology will be followed in the final paper).[4]

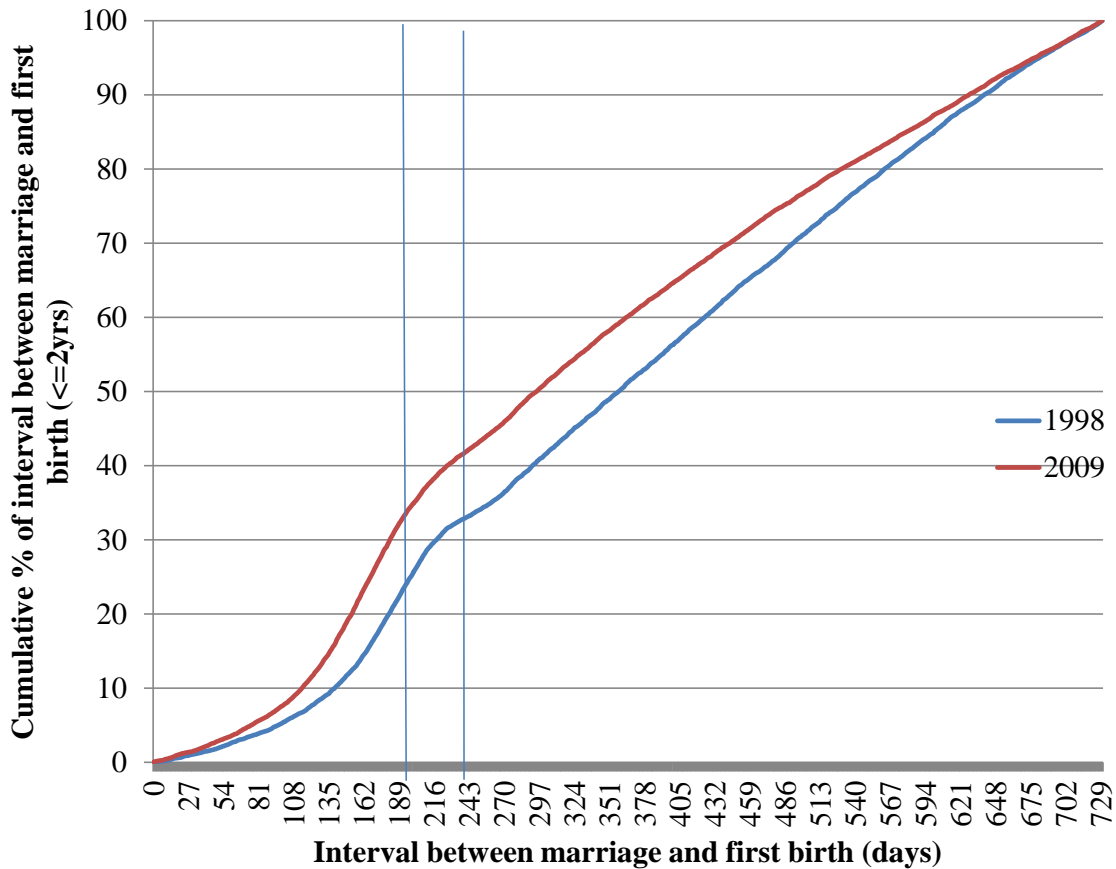**Table 2: Distribution of intervals between marriage and (all) first births**

	1996	**2009**
Mean	1,067.34	984.33
Median	809	645
Skewness	1.55	1.93
Kurtosis	3.32	4.43

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[3] Bhat, R.A. and Kushtagi, P., A re-look at the duration of human pregnancy, *Singapore Medical Journal*, 47,12 1044-50
[4] Feng, W. and Quanhe, Y. (1996), Age at Marriage and First Birth Interval: The emerging change in sexual behaviour among young couples in China, *Population and Development Review* 22,2, 299-320

Indeed, as Figure 1 shows, the relationship between marriage and interval of first birth is far from linear.

Figure 1: Cumulative % of interval between marriage and first birth (up to years after marriage)

Relationships – univariate analysis

At this stage in the project, we have only been able to perform univariate analysis. By February 2012 (and in time for the PAA Meeting) we will have performed a series of multivariate regressions and a composition analysis which should help us to explore the underlying characteristics of these changes. However, again we feel that that these preliminary results demonstrate the potential significance of the work.

1. Migrants

An important recent development in the Hong Kong marriage market is the increase in the number of HK men marrying women from the mainland. This rose from 2215 in 1996 to 13751 by 2009 (down from a maximum of 18,182 in 2006).[5] In order to explore the extent to which the role which this development has played in the rise in premarital conceptions we analysed the proportion of premarital conceptions and extramarital births to women who are registered as hailing from mainland China and resident in Hong Kong for less than five years. As Table 2 shows, there appears to be some disparity with migrant Chinese women being more likely to have a premarital conception (PNC). Furthermore, the probability of a migrant Chinese woman having a PNC has rising more compared to a woman born in Hong Kong.

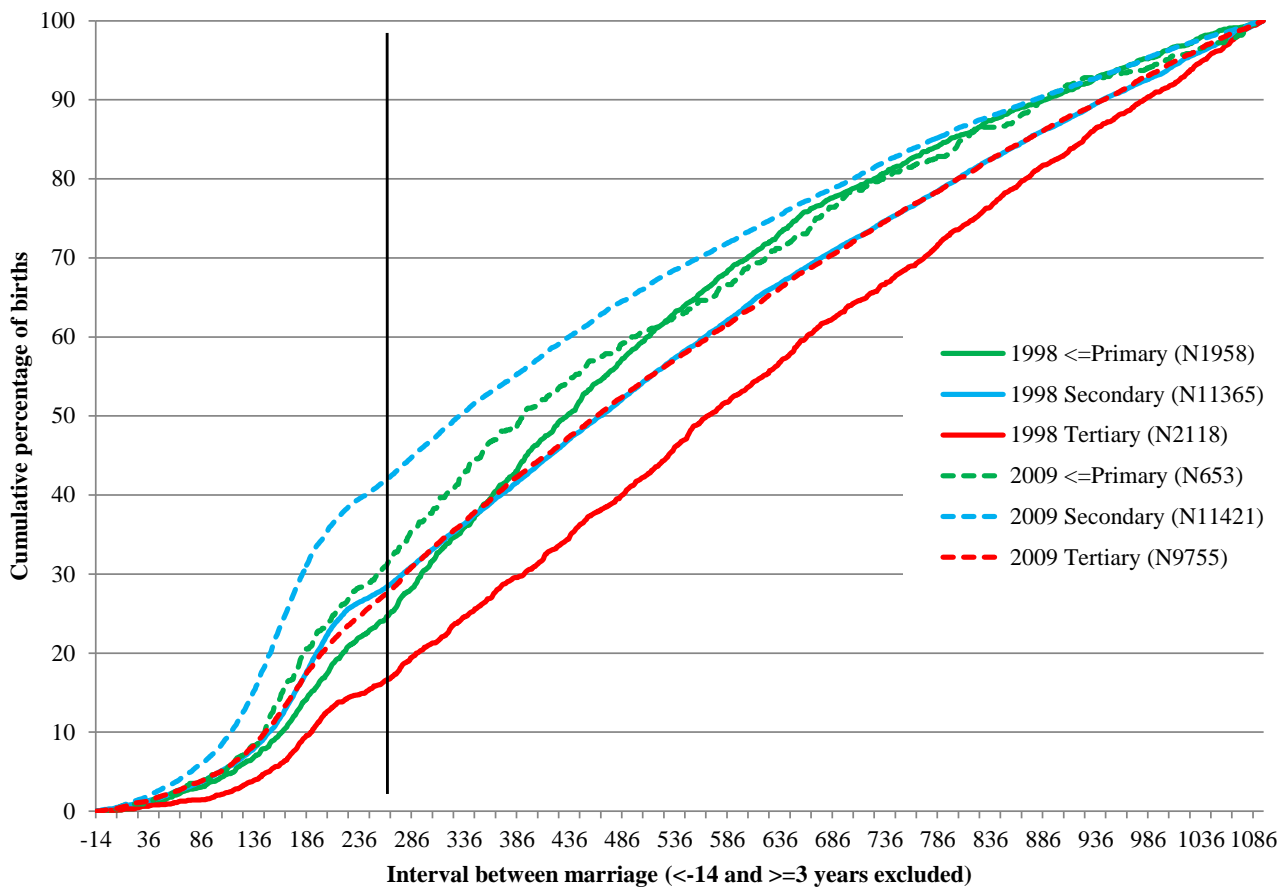[5] http://www.censtatd.gov.hk/FileManager/EN/Content_1149/T02_03_04.xls

Table 2: PNCs to recent migrants to Hong Kong from Chinese mainland and women born in Hong Kong, 1996 and 2009

	1996			2009		
	N	PNCs	%	N	PNCs	%
Chinese mainland resident in HK <= 5years	5,173	948	18.33	16,197	3,828	23.63
Lived in HK from birth	15,754	2,185	13.86	15,886	2,664	16.76

2. Education

Figure 2 presents the cumulative percentage of first births by different educational attainment levels. Again, the final analysis will control for age, migrant status etc. However, it is clear that differentials exist.

Figure 2: Cumulative plot of intervals between marriage and first birth by education

Conclusion

This preliminary analysis demonstrates some of the key features of our research and highlights some of the major transformations occurring in marriage patterns and sexual attitudes in Hong Kong. The final paper, by including multivariate and composition analysis will demonstrate in much greater depth the drivers behind these changes as well as pointing, perhaps more accurately, to future developments.