Indifferent Gender Preferences among Childless Beijing Citizens

STUART GIETEL-BASTEN , Department of Social Policy and Intervention, University of Oxford, United Kingdom
GEORGIA VERROPOULOU, Department of Statistics and Insurance Science, University of Piraeus, Greece
XIAOHONG MA, Department of Sociology, Beijing Administrative College, China
YAN PING, Department of Sociology, Beijing Administrative College, China

Abstract

Son preference, leading to skewed sex ratios at birth, is an important feature of contemporary Chinese demography, as well as being a critical policy issue. Using a 2006 representative survey, this article explores preferences for boys and girls among childless young adults in a district of Beijing who have a stated one child as their ideal number of children (though they may be eligible to bear more). The descriptive analysis finds no evidence of son-preference; rather an overall indifference to gender. A multivariate analysis provides some indicative evidence of indifference regarding predictors of desiring a girl, a boy or either. gs.

Keywords: gender indifference; changing patterns; Beijing; urban China

Introduction

Having a reported 'ideal' gendered combination of children is common to most societies, whether fertility is high or low. In some societies, this may be a direct effect of the particular gendered roles which children play. For example, in patrilineal, patriarchal societies, the importance of having at least one boy is clear. In many societies, this has in turn affected reproductive behaviour, in the sense that the number of children borne is directly linked to ensuring at least one surviving male heir (Repetto 1972). Even in countries characterised by lower fertility, there is often still a preference for a specific gendered make-up of children. For much of the twentieth-century history, low fertility was largely constrained to Europe, North America, Oceania and Japan. In the majority of these settings, the importance of bearing a male child then – and today – is more closely linked to a social norm of what might constitute an ideal family more related to higher order Maslowian needs, rather than an economic necessity as might be the case in other developing countries (Andersson et al. 2006). In other words, in many such societies,

meeting one's desire for a specific gendered make-up is perceived to be a luxury good.

In the second half of the twentieth-century, however, fertility in many countries which, at the time, might be termed developing fell to lower and lower levels. The desire to limit childbearing as a consequence of the usual motors of fertility transition (e.g. urbanisation, economic development, availability of family planning, human capital accumulation, changing female roles) was clear (Dyson and Murphy 1985). However, this so-called revolution in fertility preferences and outcomes was not necessarily matched by a revolution in the roles which sons and daughters were to play in economic, social and spiritual life (Das Gupta et al. 2003). This led to a clear tension. In previous times of higher fertility and in the context of traditional family systems, the perceived cost of having a larger family in order to have one (or more) male offspring was relatively low (Knodel 1977). However, in circumstances where preferences for fertility limitation became stronger, yet to ensure a male offspring remained important, the need to ensure that one of the fewer number of children was male grew stronger. In other words, while son preference – or more precisely a 'parental reproductive gender bias' – was present in many societies for centuries, it might be more intuitive to think that the 'cost of girls' had grown as overall fertility decreased.

This tension was met by parents enacting various procedures and interventions to ensure an ideal gendered make-up of children. Some of these interventions certainly had a long history. The so called differential stopping behaviour is clearly a legacy of earlier times. Here, couples who already have the desired sex composition of children disproportionately cease childbearing (Clark 2000). Clearly, this can have an important effect on overall sex ratios (Das Gupta et al. 2003). Other interventions, however, are rather more draconian. Female infanticide, for example, has been observed in many cultures around the world, from Inuit groups in the Arctic Coast at the turn of the twentieth-century (Balikci 1967) through to more recent discussions of the phenomenon in South India (George 1997). Other examples of post-natal interventions seen around the world include more broader, systemic neglect of girls (either in terms of healthcare provision or economic investment) as well as gender-biased household resource allocation leading to excess early-years female mortality (e.g. D'Souza and Chen, Lincoln 1980 for Bangladesh).

In recent decades, however, the capacity to perform pre-natal interventions has become significantly greater. Indeed, numerous studies have identified medical advances regarding identification and termination of female foetuses – and, crucially, the relative ease of access to this technology – as playing a critical role in shaping the demographically measurable outcomes of parental reproductive gender bias. These changes in medical technology, and their access, have been identified as key drivers of recent changes in the sex ratio at birth as a consequence of sex-selective abortion in various settings of the world, including India (e.g. Arnold, Kishor, and Roy 2002), Viet Nam (Guilmoto, Hoàng, and Ngo Van 2009), the Caucasus (Duthé et al. 2012), Taiwan and the Republic of Korea (Park and Cho 1995), for example. Amartya Sen

has argued that this development constitutes a female disadvantage in natality that has counterbalanced the female disadvantage in mortality which has typically been reduced substantially (Sen 2003). Further studies have identified this phenomenon among certain ethnic groups within countries otherwise not characterised by highly skewed sex ratios at birth (Dubuc and Coleman 2007).

Of the foregoing themes mentioned above, the People's Republic of China (hereafter 'China') is often held out to be the case in extremis. Chinese history and culture is characterised by a strong preference for sons, owing to the specially gendered roles relating to filial duties, inheritance, ancestor worship and so on (Murphy, Tao, and Lu 2011). Attitudes towards particular family systems can be encapsulated in phrases such as 'a son keeps incense at the ancestral altar burning' while 'investing in a daughter is like pouring water onto another's field' (quoted in Murphy, Tao, and Lu 2011, p. 665). Data from surveys from the 1930s onwards have consistently identified an effective shortage of females, with the intimation that female losses occurred early in life (Coale and Banister 1994). Estimates of the scale of female infanticide in historical China are highly contested (Lee 1981; cf. Mungello 2008). However, early age mortality clearly played an important role in shaping sex ratios. Coale and Banister (1994) identified that after the onset of the Communist era in China, "excess early mortality (probably infanticide) declined precipitously…but not to zero" (p.459).

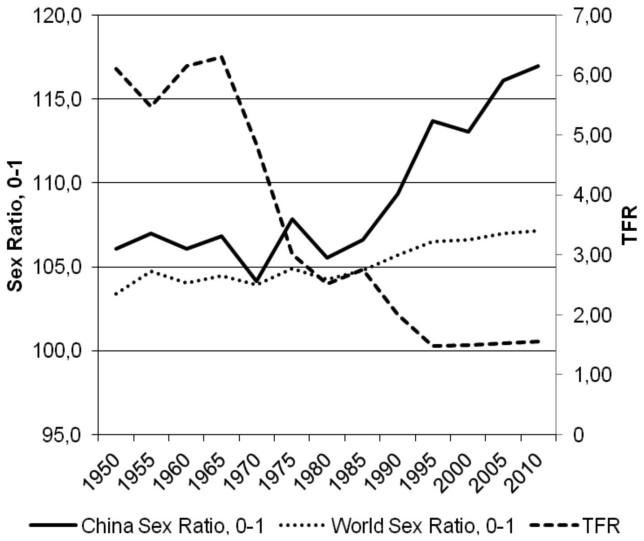
The demographic conditions set out above in terms of fertility decline were also, clearly, in place in China. Following the rapid decline in the 1970s during the 'Later, Longer, Fewer' campaign years, fertility decline increased across the country from the 1980s until reaching replacement rate in the early 1990s (UNPD 2015). While the role of the family planning restrictions in driving these total fertility changes is contested (Wang, Cai, and Gu 2013), numerous scholars have argued that they may have played an important role in shaping sex ratios at birth as a result of speeding up fertility transition, especially in rural areas, as well as by imposing sex-specific restrictions in some counties (i.e. the so-called 1.5 child policy, where in some areas, rural couples were allowed to have a second child if the first was a boy) (Gu et al. 2007; Hesketh and Zhu 1997; Zhu, Lu, and Hesketh 2009; Ding and Hesketh 2006). This has led some to argue that an (accidental) consequence of the family planning restrictions is to, in effect, have created a "one-son policy"(Cecilia Lai-wan, Eric, and Celia Hoi-yan 2006).

Again, at the same time as these demographic conditions were changing, so too were the availability and access to medical technologies which could allow for prenatal interventions. In the same vogue as articulated by Sen (2003), Coale and Banister wrote in 1994 that "the recent escalation of young females missing in China has been caused largely by rapidly escalating sex-selective abortion" (p.459). In the twenty years since Coale and Banister made this observation, access to ultrasound technology has further increased in all areas of the country, both rural and urban (Banister 2004). As indicated by a recent example from rural central China, "Prenatal sex determination was a widespread practice, especially for second and higher-order pregnancies. Sex-selective abor-

tion was prevalent and order of pregnancy, sex of foetus, and sex of previous children were major determinants of the practice"(Junhong 2001).

China's sex ratio for the population aged 0-1 years is shown in Figure 1 below, with this figure largely being driven by a skewed sex ratio at birth. For the period 2010-2015, the sex ratio in China among those aged 0-1 years is the highest in the world (UNPD 2015). As Figure 1 shows, while the change in sex ratio has occurred during the same period as fertility decline, the relationship between the two in discrete temporal terms is not exact. A partial reason for this is that these national figures obscure significant differences at the local level. These have been explored in great depth elsewhere (Basten 2012; Zhu, Lu, and Hesketh 2009). In the most recent census, for example, eight provinces were found to have sex ratios at birth of over 120 males per 100 females (Anhui, Fujian, Jiangxi, Hubei, Hunan, Guangxi, Hainan, and Guizhou), while six provinces had sex ratios at birth of below 110 (Beijing, Shanxi, Shanghai, Tibet, and Xinjiang) (Basten 2012). Furthermore, a sharp differentiation was observed between SRBs in 'cities' – with an aggregated national sex ratio at birth of around 115 – compared to 'towns' and 'rural areas' where the aggregated national sex ratio at birth was around 120 (Basten 2012). As already noted, however, many scholars have argued for the importance of local family planning restrictions in shaping these provincial (and urban-rural) differentials in sex ratio at birth(Goodkind 2011; Zhu, Lu, and Hesketh 2009) through either mechanisms of under-reporting or, indeed, through sex-selective abortion. This has led others to argue that gender discrimination is, in itself, in fact very selective and primarily against girls who are second or third order births in households and who had only sisters or both brothers and sisters (Li, Zhu, and Feldman 2004; Junhong 2001).

Figure 1: Sex ratio among population aged 0-1 years, China and World [for reference], primary axis; total fertility rate of China, secondary axis.



Source: (UNPD 2015)

Persistence in the disadvantage of girls in various forms is presented in several recent studies. These forms include mortality (Li, Zhu, and Feldman 2004), education and schooling (Song, Appleton, and Knight 2006; Davis et al. 2007) and household resource allocation (D. Lee 2008). There have, however, been recent reports of significant decreases in reported sex preferences (Chi et al. 2013) as well as an apparent stabilisation in the national SRB(Das Gupta, Chung, and Li 2009)and some sharp provincial declines(Basten 2012). These have been echoed by other studies which have identified sharp declines in terms of overall evidence of discrimination against females both in terms of demographic outcomes (H. Zhang 2007) as well as in other areas such as resource allocation and education (Hannum, Kong, and Zhang 2009). Some studies have identified instances of advantages towards girls in some areas, such as in education for example (Tsui and Rich 2002). Indeed, there are other reasons to suggest that changes in attitudes towards girls might be anticipated. As well as an overarching change in the economic and social role of girls and women occurring in China as in most other countries under conditions of urbanisation, economic development and modernisation (Cook and Dong 2011), both popular and scholarly narratives concerning the potential shortage of women suggest a potentially beneficial effect upon women both in terms of the marriage market and in intra-household resource allocation (Porter 2014). As one might anticipate, these are important macro- and micro-level drivers relating to discrimination against (or, indeed, preference for/indifference towards) girls. The important study by Attané (2009), for example, found that sex-selective behaviour was strongly linked to extreme poverty, systems of family support to the elderly, father's education and the "social pressure on couples to adhere to traditional values and roles and the constraints on family size" (p. 87). Meanwhile, economic constraints appeared to be the main driver of excess female mortality.

Taking all these into account, it might be hypothesised that parental reproductive gender bias might be lower among certain population sub-groups characterised by greater income, educational attainment, urban household registration status [hukou]. An analysis of the China 2001 National Family Planning and Reproductive Health Survey by Ding and Hesketh (2006) identified that over a third of respondents had no sex preferences. Of those the 63 per cent [N=24907] who did have a gendered preference, 72 per cent [N=24907] preferred a girl and a boy, while 10 per cent [N=2590] preferred to have girls. Of this final group, 89 per cent were females aged under 25 years old, and lived in urban areas. A major weakness of the study by Ding and Hesketh (2006), however, was its lack of analysis at the regional level. As discussed earlier in this paper, and was elucidated in the study by Basten (2012), there are important differences in sex preference both over space and by other drivers – all of which are necessarily obscured in national-level studies. Such drivers means it is indeed hard to substantiate the assertion by Ding and Hesketh (2006) that their"finding that many younger women in urban areas now express a preference for girls provides evidence that attitudes may be changing". It is no surprise that gendered fertility preferences have been identified

in earlier studies – take, for example, the general preference reported in rural areas for two sons and one daughter in the early 1970s in the study by Parish and Whyte (1978). A number of studies have identified the critical role of gender of first birth in shaping fertility preferences at the national level (e.g. G. Zhang 2004). However, relatively few studies have sought to explore such gendered preferences at the more granular level, attempting to examine differences by locale, parity or by other socioeconomic variables. For example, a recent meta-review of fertility preferences in local studies did not differentiate by gendered intentions (Basten and Gu 2013); while a different meta-review of local studies of gendered preferences did not differentiate by parity (Qi 2013). Given this important interaction between parity, socioeconomic status/residence and gender preferences, further analysis was felt to be required.

Examining gendered fertility preferences in Beijing

Using data from a representative sample survey from one prosperous district of Beijing, we sought to explore the gendered fertility preferences of a rather narrowly defined group – namely men and women with Beijing household registration status. The survey we employ oversampled childless couples in order to account for couples who may have been ineligible to bear a second child. However, some couples with one child and who are eligible to bear a second child are included in the survey with some cursory analysis performed.

The rationale for examining this sub-group of the population is that, given our foregoing discussion, this group might be considered to represent something of a vanguard population in terms of demographic behaviour and economic status. This notion of a vanguard population may give some indication as to a possible end point to the processes of fertility transition in China, and therefore to indicate whether there is anything innate about gendered discrimination in the country. A further point of interest in the Beijing population is that numerous studies have identified a strong preference among citizens with Beijing hukou towards having just one child (Hou 2003; Hou, Ma, and Huang 2008; Hou and Ma 2008). As such, the parental reproductive gender bias of this group could be keenly felt in parity one sex ratio. This is of particular interest given the recent apparent increase in the sex ratio at parity one in China (National Statistics Bureau (China) 2010).

Our research question in this paper is: what are the gendered fertility preferences of this vanguard childless population in Beijing? Given the foregoing discussion of gender discrimination in China, coupled with our analysis of a vanguard population, the hypothesis we propose to test here is that gendered preferences among childless Beijing couples are likely to be neutral.

Data and Methods

The *Dongcheng District Residents Fertility Desire Questionnaire* was conducted in 2006 in the Dongcheng District of Beijing focussing on the population aged 20-34 years old (and, where appropriate, the parents with whom they live). Dongcheng is a generally affluent district in the east-centre of the city. It covers an area of 41.82 km2 with a population of around 909,000 (Bureau of Statistics of Beijing 2014). Economically, the service sector predominates along with tourism, hi-tech industry and political institutions. Systematic sampling methods were applied and 20 out of 126 communities in 10 sub-districts of the Dongcheng District were initially identified. Based on preliminary research of the demographic characteristics in the communities, researchers at Beijing Population Research Institute determined a representative sample size for each community and assigned samples structurally by age, gender, and marital status. Staff from the Beijing Tianyuan Huizhong Market Research Company, led by local community staff, proceeded to survey the selected households.

Given the rather basic nature of the survey, and the relatively small sample size, only rather cursory analysis could be performed. As such, we present descriptive statistics as well as Relative Risk Ratios assessing the importance of factors associated with sex preferences (based on multinomial logistic regression) among childless respondents who consider one child as the ideal. The outcome of the regression analysis is a three category variable stating the preferred gender of the child: boy (reference category), girl or either. As explanatory variables the gender of the respondent is included as well as his/her educational attainment. The analysis was carried out using STATA 13.0.

Results

In total, 1,022 valid questionnaires were collected from participants, of whom almost 80 per cent(N=808) were the only child. The gendered representation was around 51 per cent (N=524) women and 48.7per cent (N=498) men; 26 per cent(N=255) fell into the age group of 20-24, 48.5 per cent(N=496) fell into the age group of 25-29, and 26.5 per cent(N=271) fell into the age group of 30-34; over 70 per cent(N=745) obtained a junior college qualification and less than 30 per cent(N=277) received secondary or lower education; 60 per cent(N=610) were single and 40 per cent(N=412) were married; 74 per cent(N=756) were employed, mostly with a monthly income of 1,500-3,000 RMB. The returned questionnaires were representative of the research population in terms of its overall characteristics.

In order to identify the gender preferences of respondents the following question was examined: ‘Do you want a boy or a girl’, to which the possible responses are ‘boy’, ‘girl’, ‘son(s) and daughter(s)’ or ‘boys and girls alike’. Given that gender preferences are often determined by the sex of the children already born, respondents who had already mothered/fathered a child were excluded. Furthermore, the lack of clarity of the question regarding configurations of boys and girls means that identifying preferences

at higher ideal number of children would be unclear and is therefore not reported here. Instead the preferences of those reporting an ideal number of children of one or zero are discussed. Descriptive statistics and the results of a multinomial logistic regression to identify whether education or gender is a predictor of stated gender preference are presented below. As a further internal consistency check, we note that the sex ratio among the one-child families in the survey in 2006 is 1.09 compared to the reported SRB for Beijing municipality in 2009-10 of 1.09 (Basten 2012).

Respondents were also asked to give 'reasons you want to have a boy' in first, second and third order. Respondents were not asked why they might want a girl, or why they were indifferent. The four most popular primary reasons for wanting a boy are reported below.

Of the 827 childless respondents in the survey, 489 per cent (N=405) stated that their ideal number of children was one. Of these 405, 15.5 per cent (N=63) said that they wanted a boy, 17.5 per cent (N=71) said they wanted a girl while 66.6 per cent (N=270) were indifferent regarding gender. Only one respondent stated an ideal number of children of one but desired both a boy and a girl, thus providing a degree of internal consistency.

It is worth noting that among childless respondents reporting having two children as their ideal (N=273), gender preferences are very similar to the abovementioned ones; 14 per cent (N=38) wanted a boy, 16 per cent (N=45) wanted a girl whereas 70 per cent (N=190) expressed indifference.

While 16 per cent (N=140) stated an ideal family size of zero, a response was still given on wanting a boy or a girl. Among this group, 16 per cent (N=23)stated a preference for a boy and 16 per cent (N=23) for a girl, while 66 per cent were indifferent regarding gender. Two people said they wanted both a boy and a girl.

For these two groups, the four most popular primary reasons for wanting a boy are that 'boys are easier to rear' (31 %, N=27); that they 'want to carry on the family line' (16%, N=14); that boys 'provide better home security' (14%, N=12); and that they wish boys to be 'heirs' (8%, N=7).

Table 1 represents the relative distribution of the dependent and independent variables used in the multinomial logistic regression models. As Table 2 shows for childless respondents with an ideal size of one, the relative risk ratio of desiring a girl over a boy is higher for women (RRR=1.61, p=0.192) and men and women with completed education of either junior college level (RRR=2.75, p=0.403) or undergraduate/graduate level (RRR=3.21, p=0.179). The relative risk ratio of being indifferent to gender over a preference for a boy is higher for women (RRR=1.14, p=0.653) and men and women with completed education of either junior college level (RRR=1.31, p=0.71) or undergraduate/graduate level (RRR=1.66, p=0.468). Given the small sample sizes, it is unsurprising that these relative risk ratios are not statistically significant. However, after Hoem (2008) the findings are still presented as they appear to concur with some general empirical expectations regarding predictors of sex preference outlined above.

Table 1. Relative distribution of the dependent and independent variables used in the multinomial logistic regression models.

Variable	Relative Frequencies
Sex Preference	
Boy	15.60
Girl	17.57
Either	66.83
Sex of the respondent	
Male	59.26
Female	40.74
Educational attainment	
High School or less	3.05
Junior college	22.65
At least some tertiary education	74.30
Sample size	**393**

Table 2. Relative Risk Ratios of sex preferences (based on multinomial logistic regression) among childless respondents who consider one child as the ideal**.**

Base outcome: preferring a boy	Relative Risk Ratios (95% CI)	
Predictors	Preferring a girl to a boy	Having no sex preference vs preferring a boy
Sex of the respondent		
Male (ref. cat.)	1.000	1.000
Female	1.602 (0.790, 3.250)	1.143 (0.639, 2.042)
Educational attainment		
High School or less (ref. cat.)	1.000	1.000
Junior college	2.755 (0.257, 29.557)	1.306 (0.309, 5.523)
At least some tertiary education	3.208 (0.319, 32.271)	1.663 (0.421, 6.574)

Finally,among respondents already having a son (N=96), 46.4 per cent (N=45) stated as ideal having two children; of these, 25.0 per cent (N=11) wanted a boy, 15.9 per cent (N=7) wanted a girl whereas 59.1 per cent expressed indifference about gender. Similarly, among the 89 respondents having a girl as a first child, 48.3 per cent (N=43) stated that their ideal number of children is two; of these 12.5 per cent (N=5) would like a boy, 27.5 per cent (N=11) would like a girl whereas 60.0 per cent (N=24) would like either. Given the small sample size, however, further statistical analysis was not performed.

Discussion, Limitations and Conclusions

The evidence presented here from this survey suggests that parental reproductive gender bias as expressed through fertility preferences appears to be relatively weak among currently childless citizens aged 20-34 in a prosperous district of Beijing. This accords with our stated hypothesis from earlier in the paper. This is not, however, to say that gender preferences are entirely absent. Indeed, from our cursory examination of the reasons for preferring a boy, traditional attitudes towards patrilinearity and security for old-age still remain.

The analysis presented clearly has a number of important limitations. Firstly, the sample itself is representative only of a small sub-set of the Chinese population, namely of a relatively affluent, generally well educated urban component of the capital city. As such, extrapolating the findings to urban China, let alone the country as a whole, is a fool's errand. Secondly, the rather basic nature of the survey meant that it was not possible to adequately explore the underlying principles which may have guided particular preferences. Related to this, the relatively small sample size meant that statistical modelling of predictors of stating particular reasons for given gender preferences was not possible. Finally, without examining parents of one child who are eligible to have a second child, it is not possible to adequately explore the influence that the gender of the first child might have on fertility preferences – something which has been identified as a key feature in the literature. In other words, examining this feature would have allowed for a better validation of the claims that there are only residual gender preferences among respondents. Nevertheless, some cursory evidence has been presented of indifference towards gender among parity one persons (irrespectively of the gender of the first child), which supports our thesis.

Despite these caveats, we feel that our investigation makes a modest contribution to the literature relating to parental reproductive gender bias in China as expressed through fertility preferences.

References

Andersson, Gunnar, Karsten Hank, Marit Ronsen, and Andres Vikat. 2006. "Gendering Family Composition: Sex Preferences for Children and Childbearing Behavior in the Nordic Countries." *Demography* 43 (2): 255–267. doi:10.1353/dem.2006.0010. http://link.springer.com/10.1353/dem.2006.0010.

Arnold, Fred, Sunita Kishor, and T. K. Roy. 2002. "Sex-Selective Abortions in India." *Population and Development Review* 28 (4): 759–785. doi:10.1111/j.1728-4457.2002.00759.x. http://doi.wiley.com/10.1111/j.1728-4457.2002.00759.x.

Attané, Isabelle. 2009. "The Determinants of Discrimination against Daughters in China: Evidence from a Provincial-Level Analysis." *Population Studies* 63 (1): 87–102.

Balikci, Asen. 1967. "Female Infanticide on the Arctic Coast." *Man* 2 (4): 615–625.

Banister, Judith. 2004. "Shortage of Girls in China Today." *Journal of Population Research* 21 (1): 19–46.

Basten, Stuart. 2012. "Family Planning Restrictions and a Generation of Excess Males: Analysis of National and Provincial Data from the 2010 Census of China." 59. Oxford Centre for Population Research Working Papers. Oxford. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2202738.

Basten, Stuart, and Baochang Gu. 2013. "Childbearing Preferences, Reform of Family Planning Restrictions and the Low Fertility Trap in China." 61. Oxford Centre for Population Research: Working Paper. Oxford. https://www.spi.ox.ac.uk/fileadmin/documents/PDF/WP_61_Childbearing_preferences.pdf.

Bureau of Statistics of Beijing. 2014. *Beijing Statistical Yearbook*. Beijing: China Statistical Press. http://www.bjstats.gov.cn/sjfb/bssj/ndsjcs/201503/t20150304_289141.htm.

Cecilia Lai-wan, Chan, Blyth Eric, and Chan Celia Hoi-yan. 2006. "Attitudes to and Practices Regarding Sex Selection in China." *Prenatal Diagnosis* 26 (7) (July): 610–613. doi:10.1002/pd.1477. http://doi.wiley.com/10.1002/pd.1477.

Chi, Z., Z. X. Dong, W. X. Lei, Z. W. Jun, L. Lu, and T. Hesketh. 2013. "Changing Gender Preference in China Today: Implications for the Sex Ratio." *Indian Journal of Gender Studies* 20 (1) (January 18): 51–68. doi:10.1177/0971521512465936. http://ijg.sagepub.com/content/20/1/51.short.

Clark, Shelley. 2000. "Son Preference and Sex Composition of Children: Evidence from India." *Demography* 37 (1) (February): 95. doi:10.2307/2648099. http://link.springer.com/10.2307/2648099.

Coale, Ansley J., and Judith Banister. 1994. "Five Decades of Missing Females in China." *Demography* 31 (3) (August): 459. doi:10.2307/2061752. http://link.springer.com/10.2307/2061752.

Cook, Sarah, and Xiao-yuan Dong. 2011. "Harsh Choices: Chinese Women's Paid Work and Unpaid Care Responsibilities under Economic Reform." *Development and Chang*e 42 (4) (July 14): 947–965. doi:10.1111/j.1467-7660.2011.01721.x. http://doi.wiley.com/10.1111/j.1467-7660.2011.01721.x.

D'Souza, Stan, and C. Chen, Lincoln. 1980. "Sex Differentials in Mortality in Rural Bangladesh." *Population & Development Review* 6 (2): 257–270.

Das Gupta, Monica, Woojin Chung, and Shuzhuo Li. 2009. "Evidence for an Incipient Decline in Numbers of Missing Girls in China and India." *Population and Development Review* 35 (2) (June): 401–416. doi:10.1111/j.1728-4457.2009.00285.x. http://doi.wiley.com/10.1111/j.1728-4457.2009.00285.x.

Das Gupta, Monica, Zhenghua Jiang, Bohua Li, Zhenming Xie, Woojin Chung, and Hwa-Ok Bae. 2003. "Why Is Son Preference So Persistent in East and South Asia? A Cross-Dountry Study of China, India, and the Republic of Korea." *The Journal of Development Studies* 40 (2): 153–187.

Davis, Deborah S., Pierre Landry, Yusheng Peng, and Jin Xiao. 2007. "Gendered Pathways to Rural Schooling: The Interplay of Wealth and Local Institutions." *The China Quarterly* 189: 60–82.

Ding, Q J, and T Hesketh. 2006. “Family Size, Fertility Preferences, and Sex Ratio in China in the Era of the One Child Family Policy: Results from National Family Planning and Reproductive Health Survey.” BMJ 333 (7564): 371–373. http://ovidsp.ovid.com/ovidweb.cgi?T=JS&CSC=Y&NEWS=N&PAGE=fulltext&D=med5&AN=16690642.

Dubuc, Sylvie, and David Coleman. 2007. “An Increase in the Sex Ratio of Births to India-Born Mothers in England and Wales: Evidence for Sex-Selective Abortion.” *Population and Development Review* 33 (2) (June): 383–400. doi:10.1111/j.1728-4457.2007.00173.x. http://doi.wiley.com/10.1111/j.1728-4457.2007.00173.x.

Duthé, Géraldine, France Meslé, Jacques Vallin, Irina Badurashvili, and Karine Kuyumjyan. 2012. “High Sex Ratios at Birth in the Caucasus: Modern Technology to Satisfy Old Desires.” *Population and Development Review* 38 (3) (September 10): 487–501. doi:10.1111/j.1728-4457.2012.00513.x. http://doi.wiley.com/10.1111/j.1728-4457.2012.00513.x.

Dyson, Tim, and Michael Murphy. 1985. “The Onset of Fertility Transition.” *Population & Development Review* 11 (3): 399–440.

George, Sabu M. 1997. “Female Infanticide in Tamil Nadu, India: From Recognition back to Denial?” *Reproductive Health Matters* 5 (10) (November): 124–132. doi:10.1016/S0968-8080(97)90093-8.

Goodkind, D. 2011. “Child Underreporting, Fertility, and Sex Ratio Imbalance in China.” *Demography* 48 (1): 291–316. http://ovidsp.ovid.com/ovidweb.cgi?T=JS&CSC=Y&NEWS=N&PAGE=fulltext&D=medl&AN=21336689.

Gu, Baochang, Feng Wang, Zhigang Guo, and Erli Zhang. 2007. “China’s Local and National Fertility Policies at the End of the Twentieth Century.” *Population and Development Review* 33 (1) (March 1): 129–147. doi:10.2307/25434587. http://www.jstor.org/stable/25434587.

Guilmoto, Christophe Z., Xuyên Hoàng, and Toan Ngo Van. 2009. “Recent Increase in Sex Ratio at Birth in Viet Nam.” Edited by Rebecca Sear. *PLoS ONE* 4 (2) (February 27): e4624. doi:10.1371/journal.pone.0004624. http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0004624.

Hannum, Emily, Peggy Kong, and Yuping Zhang. 2009. “Family Sources of Gender Inequality in Rural China: A Critical Assessment.” *International Journal of Educational Development* 29: 474–486.

Hesketh, T, and W X Zhu. 1997. “The One Child Family Policy: The Good, the Bad, and the Ugly.” *BMJ* 314 (7095) (June 7): 1685–7. http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=2126838&tool=pmcentrez&rendertype=abstract.

Hou, Yafei. 2003. “An Analysis of the Survey of Personal Fertility Inclination in Beijing (in Chinese).” *Journal of the Beijing Academy of Social Social Science* 3: 62–67.

Hou, Yafei, and Xiaohong Ma. 2008. “Studies of the Desired Bearing of One Child in Urban Beijing (in Chinese).” *Social Science of Beijing* 1: 27–31.

Hou, Yafei, Xiaohong Ma, and Kuangshi Huang. 2008. “Research on the Fertility Desire and Behavior of Beijing Urban Women from Only-Child Families (in Chinese).” *Population and Development* (China) 14 (1): 47–54.

Junhong, Chu. 2001. “Prenatal Sex Determination and Sex-Selective Abortion in Rural Central China.” *Population and Development Review* 27 (2) (June): 259–281. doi:10.1111/j.1728-4457.2001.00259.x. http://doi.wiley.com/10.1111/j.1728-4457.2001.00259.x.

Knodel, J. 1977. “Family Limitation and the Fertility Transition: Evidence from the Age Patterns of Fertility in Europe and Asia.” *Population Studies* 31 (2) (July): 219–49. doi:10.1080/00324728.1977.10410428. http://www.tandfonline.com/doi/abs/10.1080/00324728.1977.10410428.

Lee, Bernice J. 1981. “Female Infanticide in China.” *Historical Reflections / Réflexions Historiques* 8 (3): 163–177.

Lee, Daniel. 2008. “Do Families Spend More on Boys than on Girls? Empirical Evidence from Rural China.” *China Economic Review* 19: 80–100.

Li, Shuzhuo, Chuzu Zhu, and Marcus W. Feldman. 2004. “Gender Differences in Child Survival in Contemporary Rural China: A County Study.” J*ournal of Biosocial Science* 36 (1): 83–109.

Mungello, D.E. 2008. *Drowning Girls in China: Female Infanticide in China since 1650.* Lanham, MD: Rowman & Littlefield Publishers.

Murphy, Rachel, Ran Tao, and Xi Lu. 2011. "Son Preference in Rural China: Patrilineal Families and Socioeconomic Change." *Population and Development Review* 37 (4) (December 13): 665–690. doi:10.1111/j.1728-4457.2011.00452.x. http://doi.wiley.com/10.1111/j.1728-4457.2011.00452.x.

National Statistics Bureau (China). 2010. "2010 Population Census of China." Beijing.

Parish, William, and Martin King Whyte. 1978. *Village and Family in Contemporary China*. Chicago: University of Chicago Press.

Park, Chai Bin, and Nam-Hoon Cho. 1995. "Consequences of Son Preference in a Low-Fertility Societ y: Imbalance of the Sex Ratio at Birth in Korea." *Population & Development Review* 21 (1).

Porter, Maria. 2014. "How Do Sex Ratios in China Influence Marriage Decisions and Intra-Household Resource Allocation?" *Review of Economics of the Household* (August 27). doi:10.1007/s11150-014-9262-9. http://link.springer.com/10.1007/s11150-014-9262-9.

Qi, Shuangyu. 2013. "Is Gender-Preference Still Prevalent Among Chinese Parents-To-Be? A Meta-Analysis On The Fertility Intention By Sex Among Only-Children In Urban China." University of Oxford.

Repetto, Robert. 1972. "Son Preference and Fertility Behavior in Developing Countries." *Studies in Family Planning1* 3 (4): 70–76.

Sen, Amartya. 2003. "Missing Women--Revisited." *BMJ (Clinical Research Ed.)* 327 (7427) (December 6): 1297–8. doi:10.1136/bmj.327.7427.1297. http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=286281&tool=pmcentrez&rendertype=abstract.

Song, Lina, Simon Appleton, and John Knight. 2006. "Why Do Girls in Rural China Have Lower School Enrolment?" *World Development* 34 (9): 1639–1653.

Tsui, M, and L Rich. 2002. "The Only Child and Educational Opportunity for Girls in Urban China." *Gender and Society* 16 (1): 74–92. http://www.scopus.com/inward/record.url?eid=2-s2.0-23044528724&partnerID=40&md5=096cf21d513d5f566b614291a2278624.

UNPD. 2015. "World Population Prospects: The 2015 Revision." *World Population Prospects*: The 2015 Revision. http://esa.un.org/unpd/wpp/DVD/.

Wang, Feng, Yong Cai, and Baochang Gu. 2013. "Population, Policy, and Politics: How Will History Judge China's One-Child Policy?" Population and Development Review 38 (February 19): 115–129. doi:10.1111/j.1728-4457.2013.00555.x. http://doi.wiley.com/10.1111/j.1728-4457.2013.00555.x.

Zhang, Guangyu. 2004. "Does the Family Planning Program Affect Fertility Preferences? The Case of China." Canberra.

Zhang, Hong. 2007. "From Resisting to Embracing the One-Child Rule? Understanding New Fertility Trends in a Central China Village." The China Quarterly 192: 855–875.

Zhu, W. X., L. Lu, and T. Hesketh. 2009. "China's Excess Males, Sex Selective Abortion, and One Child Policy: Analysis of Data from 2005 National Intercensus Survey." Bmj 338 (apr09 2) (April 9): b1211–b1211. doi:10.1136/bmj.b1211. http://www.bmj.com/cgi/doi/10.1136/bmj.b1211.