

FERTILITY AND POPULATION POLICY IN TWO COUNTIES IN CHINA 1980–1991

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Summary. A survey of women in two highly developed rural counties of China, Sichuan and Jiangsu Provinces, was carried out in late 1991, to gain information about demographic and economic change between 1980 and 1990. Three separate surveys were conducted: the first a questionnaire administered to married women aged 30–39, eliciting information about childbearing and contraception, as well as the social and economic background of the respondents; the second, focus group interviews emphasizing the motivation for childbearing. Official information about the selected villages, townships and counties was also collected.

National level data in 1987 show that individual reproductive behaviour in China failed to conform to a universal, effectively implemented, population policy. They imply either a spatial range of policies, or great diversity in the demand for children, or perhaps a combination of both.

Such diversity in reproductive behaviour is also found in the study area. The purpose of the analysis was to examine the diversity in reproductive behaviour and contraceptive practice, and to discover whether differentials are influenced by area, or else exist between individuals within areas. If the former, then the explanation may be found in differences in policy formulation and implementation between areas: and if the latter, to demand for children, or else differential application of policy restrictions.

The main findings were that: (1) the explanation of the pattern of fertility and contraceptive use is to be found at the individual level (within locations) rather than in policy differences between administrative units; (2) the association between income and number of children is negative, as is that between income and the propensity for uniparous women to remain unsterilized. The theory that privilege may be exercised to gain concessions from birth planning cadres is therefore not supported; (3) ideal family size differentials are largely absent, showing that social (education) and economic (income, occupation) characteristics are not responsible for differences in reproductive motivations, and implying that the nature of the demand for children is very different from that in most rural areas of the Third World; (4)

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data on ideal family size by sex of the existing offspring indicate only a weak preference for sons.

The low demand for children, and the weak son preference, may both be explained by the social acceptability of uxori-local marriages, and of village endogamy, together with the prohibitive costs of children, and especially of sons. This partly results from the expense of education, but most mothers emphasize marriage costs.

It is speculated that the circumstances responsible for the escalating costs of children in the two counties are likely to pertain in growing areas of the country, with the privatization of education and health services, the declining support of collective institutions, and the replacement of this function by kinship networks.

These on-going changes imply that any policy of reproductive restriction for the purposes of population control is likely soon to meet with diminishing resistance; and it may later be rendered unnecessary in the eyes of government officials, as fulfilled reproductive intentions lead to a fertility level below replacement level.

Introduction

The One Child Family Policy (OCFP) was introduced by central government in China in 1979. This policy was not a law as such, and a great deal of autonomy of population policy formulation was devolved to the provincial level (Croll, 1985, p. 27; Zeng, 1989). Neither have individual provincial regulations been implemented as strict rules within their territories. Regulations at yet lower levels have also developed, guided by provincial regulations but influenced by demands from below (Greenhalgh, 1990). Under pressure ultimately from local level cadres, other central directives have been issued over the intervening years, culminating in the formal abandonment of the OCFP in 1991, and its replacement by the Daughter Only Policy (DOP), under which women with one daughter are permitted a second child (Greenhalgh & Li, 1993, p. 31; White, 1994, p. 154).

Knowledge about the actual policies in place at each administrative level, of how they have been implemented, and of the degree of resistance to, or support for these policies, is very sketchy (Thomas, 1995). It has come from formal central government documents (White, 1994), from imperfect and incomplete information about internal communications between different administrative levels (and between law-makers and implementators) (Aird, 1990), and from a limited number of case studies (Potter & Potter, 1990; Greenhalgh, 1990).

A study of 'parity progression ratios' (the proportions of women with n children who will go on to have at least $(n+1)$ children) in China in 1987, at a time when the official national population policy was still the OCFP, but when most provinces had unofficially abandoned it in favour of the DOP, is very revealing about the policy mix in practice (Zeng, 1989; Nygren & Hoem, 1993, p. 19). The fact that 81% of women with one child went on to have a second one, demonstrated that the OCFP was not predominant. However, 16% of women with only one daughter would have no more children, implying that, in some areas at least, the OCFP was being strictly applied. Finally, 78% of those with one son would have another child, which indicates a

policy more lax than even the liberalized DOP, perhaps an unconditional Two Child Policy.

This diversity in family size and sex structure may reflect a spatial differentiation of policy operating throughout China in 1987, ranging from the strict OCFP, through the DOP, to a Two Child Policy. Alternatively, or additionally, it may be the result of inconsistency of implementation within localities. Which of these is the case has important ethical implications. For instance, it could be asked whether such inconsistency results from systematic discrimination in favour of privileged groups.

Little if any of the recent research on population policy and programmes, or on fertility, in China, is designed to address these issues. Much of it deals with highly specific programmatic issues (Tu & Smith, 1995). Other work is more technically demographic, but does not examine local variations in policy, nor combinations of fertility and contraceptive use, which are necessary in order to address this issue (Goldstein, White & Goldstein, 1997; Graham, Larsen & Xiping, 1998; Li & Choe, 1997; Qian, 1997). All these papers examine data from the late 1980s and early 1990s. To the authors' knowledge the only recent paper to examine local demographic or policy variations is that by Short & Zhai (1998). However, its sole focus is the declared official population policies at village level (from 1989 to 1993), and it contains no accompanying demographic analysis to ascertain whether official and implemented policy correspond. This study therefore is primarily an attempt to shed some light on the specific question of the causes and implications of variability in parity-contraception combinations at the individual level, in two specific areas of China in 1991 and, by implication, in the preceding decade.

Methods

A survey of 239 women in two rural counties, in Sichuan and Jiangsu Provinces respectively, was carried out in late 1991/early 1992, with the aim of gaining information about demographic and economic change between 1980 and 1990. Three separate surveys were conducted. The first consisted of a questionnaire administered to each of the women in the sample. This elicited information about childbearing and contraception, as well as the social and economic background of the respondents.

The second survey consisted of focus group interviews of subsets of respondents of the first survey from eight of the 24 villages, at least one being from each of the six townships (see below). The main emphasis of these discussions was the motivation for childbearing, including the social and economic costs and benefits. The interviews were taped, transcribed and translated into English.

Official information about the selected villages, townships and counties was also collected, and this constituted the third component of the study. In general, however, this proved problematic, as local statistics were subject to state secrecy. The information gathered was insubstantial.

The survey areas were chosen through the random selection of two counties, one from each of two broad geographical regions of China: the developed coastal area, and an inland area. The counties thereby selected were Wujiang in Jiangsu Province, and Chongqing in Sichuan Province respectively (see map). Each county was separated into four geographical regions, and a township (called a 'commune' before

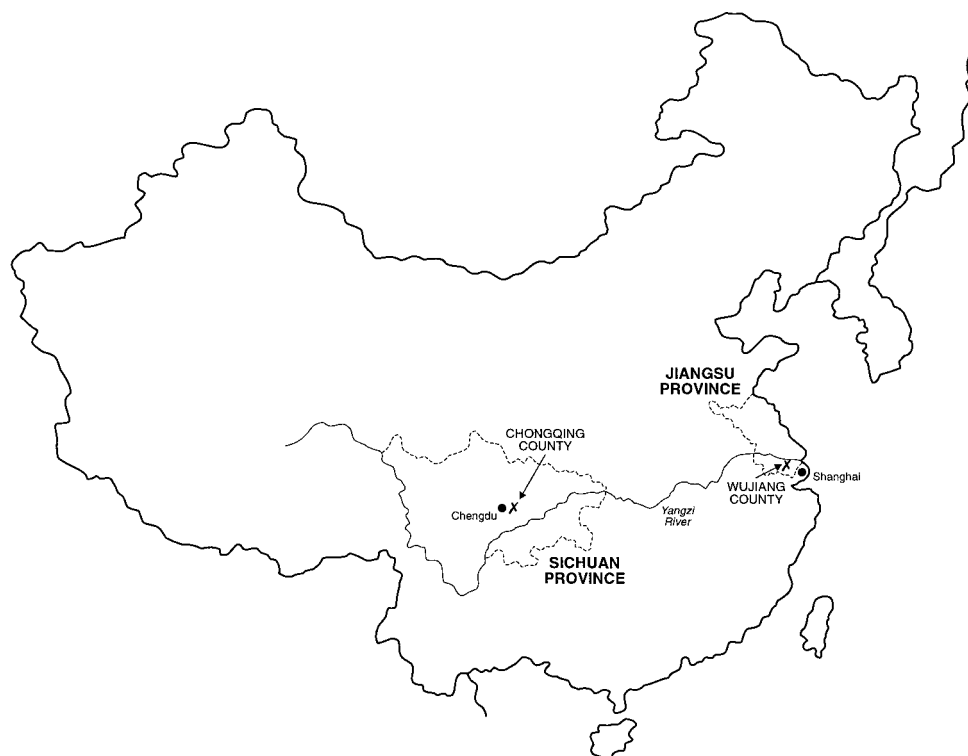


Fig. 1. Map of China showing the locations of Chongqing and Wujiang Counties.

decollectivization) selected randomly from each. One of the resulting townships from each county was then randomly discarded. Four villages were randomly selected from each of the six townships, in exactly the same way. Finally, within each village a sample of ten married women aged 30–39 (born 1951–1960), belonging to the majority Han ethnic group, with at least one child, and who were part of a couple both of whom were rural permanent resident card-holders, were randomly selected from the official village list.

The counties selected were both situated in highly developed parts of China. Both Wujiang and Chongqing are extremely densely populated agricultural areas, with densities of 650 and 571 people per square kilometre in 1990, compared with 118 for China as a whole. Both had benefited from rapid rural industrialization so that 92% and 61% respectively of the value of output was derived from industry. Their agriculture was also stimulated by their proximity to the markets of huge conurbations: Wujiang being situated in the Yangzi River Delta, close to Shanghai, China's largest industrial city; and Chongqing being 40 km from Sichuan's capital city Chengdu.

Evidence for the existence of a coherent and rigid population control policy

Under the One Child Family Policy introduced in the late 1970s and early 1980s each government of administrative units at and below provincial level formulated a set of criteria which couples would have to meet in order to be permitted officially to have a

Table 1. Proportion of couples protected through sterilization, by family composition (percentage)

Family composition	Percentage sterilized (sample size)
1 girl	14 (65)
1 boy	22 (95)
2 girls	90 (10)
1 boy, 1 girl	85 (33)
2 boys	71 (7)
3 children	100 (4)

second child. However, according to the official but unpublicized provincial policies, the only rural areas in China where an 'OCFP with exceptions' was in operation by 1989 was in the more developed areas of Sichuan and Jiangsu Provinces where, in fact, the study areas are situated (Zeng, 1989, p. 335). Official information was received in this study to the effect that this policy had been operating in Chongqing since 1980, and in Wujiang since the late 1970s. The fact that it was in force in 1991 was corroborated by several interview statements in the focus group discussions.

While the parity of the 1951–55 birth cohort is 1.57 ($n=100$), that of the 1956–60 cohort is only 1.03 ($n=125$). This does indeed suggest that the OCFP had operated effectively in the survey areas for some years, and it is likely that most women with more than one child had their second before it was introduced.

However, when the operation of this policy is looked at more carefully some interesting anomalies emerge. Case studies from elsewhere in China normally reveal that women with one child are permitted to practise reversible contraceptive methods in recognition that the policy may change in the future. The current data, however, show that many women with one child are in fact sterilized. Still more surprising, on the face of it, is the inconsistency implied by the fact that equally, many others are not. While 30 such couples are 'protected' through sterilization, 130 are not.

Studies conducted in the 1980s have revealed that in practice many rural areas abandoned the OCFP in favour of an unofficial policy allowing women to bear a son (Greenhalgh, 1990). If this had happened in the current study areas, those with one son would be expected to be more likely to be sterilized than those with one daughter only. Also it would be expected, under a policy which favoured those with girls, a higher proportion of those with a boy and a girl, or two boys, to be sterilized, than those with two girls. But these patterns are not significantly borne out by the data in Table 1, in which the differences are statistically insignificant.

Neither the rules of an official OCFP nor of an informal DOP would explain the considerable variation in the contraceptive methods adopted by parity and sex composition of offspring. Such apparent inconsistency could be explained by: (1) spatial diversity in policy between villages, or townships, or between the two counties; or (2) uneven, and hence unequal, application of the rules. These possibilities are now considered in turn.

Table 2. Number of couples protected through sterilization, by parity and township

Township	Number of sterilized women with one child	Number of unsterilized women with two children	Sample size
Chongqing:			
1	3	2	40
2	3	3	39
3	6	1	40
Wujiang:			
4	6	1	41
5	5	1	39
6	7	0	40

Spatial diversity

The fact that the practice of sterilizing women (or their husbands) who have only one child is common but not universal in the study area is a puzzle. An additional anomaly is that some women with two children are not sterilized. These apparent inconsistencies of policy may of course be explainable by the existence of a spatial mixture of official policies, or their implementation. The spatial distribution of these two 'anomalous' groups, however, is quite uniform. There are only three village samples out of 24 which do not contain a single woman in one of these categories. The pattern by township is shown in Table 2.

While there are minor differences in the prevalence of these anomalous groups between townships, the chi-squared test shows that they are not statistically significant; and they are certainly not as great as one would expect if there were substantial differences in policy, or in its implementation, between these widely spaced areas.

Strictness of implementation of population policy may also be indicated by the number of abortions per woman, and by the sex ratio at birth. If official reproductive restrictions are enforced more strictly in a particular area it would be expected that more pregnancies would be terminated; also that couples will go to greater lengths to ensure that any children born are of the desired sex, resulting normally in a raised sex ratio at birth.

Nonetheless these variables – abortions per woman, and sex ratio at birth – too are quite uniform at the township level. So the evidence suggests that there is little difference in policy, as implemented, between areas.

An alternative explanation of the prevalence of these 'anomalous groups' is that policy is implemented unevenly between individuals in the same localities.

Uneven policy implementation

Such unevenness can be speculated to be the result of the ability of some couples to influence cadres to exempt them from the policy, perhaps through political or familial association, favouritism or bribery. Alternatively they may simply be able to

pay the requisite fines for bearing children outside the local birth plan (the list of women permitted to give birth in a particular year). If this is so, a positive association may be expected between standard of living and ability to evade reproductive restrictions. This, however, is not the case: women with one child who have been sterilized have the same family income (5530 yuan per year, with a standard error of 391 yuan) as those who have not (5680 yuan, standard error 181). The difference is statistically insignificant.

It is also found that the combination of occupations of the mother and father has no effect on the membership of anomalous groups: application of the chi-squared test shows that the difference between the frequency distribution of the anomalous groups by occupational categories of mother and father, and that of the rest of the sample, was not statistically significant.

Neither does education have any such effect. The theory that personal or political influence may be responsible for the ability of some women to evade sterilization is therefore not supported by the data.

Furthermore, if such influence did indeed operate it may be expected that women with two children would be better off than those with one. In fact the reverse is true, the respective family incomes being 4370 and 5650 yuan (respective standard errors of 249 and 166 yuan). (Note also that, because younger women have fewer children and higher family incomes, it is necessary to control for age in studying parity and income. Although the relationship is thereby weakened, it is still significant at the 5% level, and in the same direction.)

Indeed it is possible that the greater income of those with one child may be due to their being rewarded for such compliance with jobs in village or township industries. It may also be that local birth planning authorities were unable to prevent people who have the greatest need for children from breaking the rules. The likelihood that such couples would tend to be poorer is supported by the fact that the latter tended to cite old age security as a motivation for childbearing.

Another possible explanation of the diversity in family size, and in contraceptive method by parity, is that women who have 'out-of-plan' pregnancies are less likely to be trusted by birth planning cadres and permitted to have a second child, or even to remain unsterilized with one child. The number of abortions per woman over the 1980–90 period is used as an, admittedly imperfect, measure of such pregnancies. It is found that women with two children have had only half the mean number of abortions as those with one (the difference is significant at the 0.1% level). On the other hand, the data provide no evidence for the latter speculation, that uniparous women with fewer pregnancies are more likely to be permitted to practise reversible methods of contraception.

Non-policy explanations of fertility levels and trends

There is no evidence to suggest that there are significant differences in policy or its implementation between different locations. At the individual level, the diversity in 'family size', in contraceptive use, and in the combination of these, have to be explained by other factors.

However, the normal array of demand-generating factors (including income and

Table 3. The number of children ever born per woman, and the sex ratio at birth, by birth cohort

Birth cohort	Children ever born per woman	Sex ratio at birth (sample size)
1951–53	1.83	116 (60)
1954–55	1.39	130 (40)
1956–58	1.12	121 (57)
1959–60	1.01	109 (68)

education) is found to have only a very slight effect on fertility; as is the occupations of women and their husbands on the fertility/contraception combination. One reason for the absence of fertility differentials by place and socioeconomic background may be that the demand for children is so low. Of the 129 women who have one child and are able to have another (that is, they are not sterilized) 44% stated that they did not want one, while again there was almost no difference in occupation, income or education between those who wanted an additional child and those who did not (the *independent* effect of each variable was analysed). Surprisingly perhaps this proportion was almost as high among women with a daughter (39%) as with a son (48%). To an extent the weakness of the preference for sons may be a reflection of the optimistic perception of future economic opportunities for daughters relative to sons. At present the respondents' incomes were only 23% lower than those of their husbands', and in no township was this figure greater than 31%.

The combination of a low demand for children and weak son preference is also implied by the fact that while fertility has fallen sharply (shown by the very low fertility among the younger women in the sample) the sex ratio at birth has not increased accordingly. This is shown in Table 3.

It can tentatively be concluded that the demand for children is very low, and that the variation in fertility between women is the result largely of factors unrelated to policy diversity within the areas surveyed, or of the social and economic benefits of children.

Nonetheless, security in old age was cited as the primary reason for childbearing among 58% of women in the sample. This was higher in Wujiang, and more important among the poor. It was expressed as a concern among several women in focus group discussions, but its effect was ameliorated by the availability of pension schemes for those with one child.

It is the tradition in China for women on marriage to live with, or near, their new husbands' parents. Such virilocal marriages mean that daughters are lost from the home of their parents. This loss is compounded through the traditional taboo against marrying a husband within the same village (village endogamy). This is believed to have arisen from the wish to avoid in-breeding in villages whose inhabitants frequently all belong to the same 'clan' (that is, have a common ancestor). Consequently the marriage of a daughter involves her migration away from her natal home to another village, and her loss as a source of support for her parents.

Consequently it may be imagined that couples with one daughter only would be especially vulnerable to economic uncertainty, or to sickness and old age. *Prima facie* the low demand for a further child among such mothers is perplexing. It appears, however, from several discussion statements, that uxori-local marriages (husbands moving to the homes of their wives' parents) were socially acceptable for the daughters of such couples, provided perhaps that they were sufficiently wealthy to attract their sons-in-law.

Discussants' statements also implied that one of the regulations of the OCFP, at least in Wujiang, permitted couples who broke the virilocal tradition to have a second child. Furthermore, tradition does not prevent the child(ren) of such couples from inheriting the family name. Thus one respondent from Wujiang said: 'The families with a girl only, do not always think that their family name cannot be continued. In other areas such as Fujian Province, people are very traditionally minded, and a daughter is not regarded as a child of the family. We are different from them: we can have a son-in-law marry into his wife's family.' Yet another said: 'It does not matter whether you have a boy or a girl: as long as you have a child the family name will be carried on.'

This has both material and symbolic significance, as it enables the couples' children to inherit their land, and their grandsons to extend the partilineage despite the absence of a son.

These findings are only partly in line with the demographic and anthropological literature. A massive survey of customary law in China was initiated by the Imperial Government in 1906, and completed by its Republican successor in 1918, in 68 widely separated localities. This showed that uxori-local marriages, whilst largely absent in the North, were most common in China's western frontier and in the lower Yangzi, in which Wujiang County is situated (Wolf & Huang, 1980, p. 334). No data, however, were collected from Sichuan Province. J. Lossing Buck's monumental surveys of Chinese family farms confirm the prevalence of sons-in-law residing in their wives' homes in the lower Yangzi, in 1929–33, but show them to be absent in the Red Basin area, which is a part of Sichuan Province, and includes Chongqing County (ibid: 328). It is therefore surprising that some of the respondents from Chongqing acknowledge the existence of uxori-local marriages in an area where a pre-revolutionary survey failed to find them.

It can only be speculated that the current attempts of the Chinese government to reward couples who live with the wives' families are a continuation of an earlier policy, and are rooted in earlier Communist Party opposition to many forms of traditional culture.

Even though uxori-local marriages are not forbidden, the impression gained is that they are certainly not the norm aspired to, and consequently the usefulness of daughters will be strongly influenced by the physical distance between the families of the bride and groom, and hence the significance of the practice of village endogamy.

Shue (1988) has described how in Maoist times villages became mutually isolated, especially with the formal abolition of local produce markets. Selden (1993, pp. 152–156) argues that the consequent decline in inter-village communications led to the erosion of the taboo on intra-village marriages. However, when villages later became opened up again with the re-introduction of local trade and communications, village endogamy did not cease because: (a) couples continued to form romantic attachments within the village; (b) communist ideology had wrested control over choice of partner

Table 4. Parental estimates of the average annual cost of raising a child to age sixteen, by county

	Annual expenditure (yuan)				Sample size	No response
	Boys		Girls			
	Mean	Median	Mean	Median		
Chongqing (Sichuan)	877	1000	1005	950	119	7
Wujiang (Jiangsu)	1674	1400	1336	1000	120	5

from parents, so that young people were more likely to marry whom they wished; and (c) the cultural taboo against village endogamy had lost its force.

If indeed this is the case then it becomes more likely that 'only daughters' will live within easy reach of their parents, and be able to contribute effectively towards their economic security in times of difficulty, including old age. The rapidly escalating size of dowries in the study area can be explained in part by their function in generating obligations from daughters, in the context of the feasibility of meeting them where village endogamy is normal, and uxrilocal marriages are accepted *in extremis*.

In conclusion, there appears to be a weak son preference and a very low demand for children. The former is reinforced by both the economic opportunities afforded to women, and by the acceptability of village endogamy and uxrilocal marriages.

The low demand for children is surprising. There are several reasons to expect otherwise. Farming was decollectivized by 1980, and family income thus became more closely related to output. Labour would therefore be a crucial determinant of income. Family businesses are now encouraged, and these too require labour. Culturally, the resurrection of patrilineal ancestor-based religion is well documented (Potter & Potter, 1990). All these changes would be expected to raise the demand for children.

Hence, the diversity in fertility, and in the combination of parity and contraception, are not explained by either policy differences between administrative units within the study area, or by such demand-generating factors as education, income or occupation. It is possible that the reason for both the low demand for children and the absence of significant fertility differentials is to be found in the prohibitive cost of children. This is the subject of the next section.

The cost of children

Information about such costs was available from the questionnaire data, while their effect on the demand for children was raised in the focus group discussions.

General (aggregate) expenditure on children

Parents in the survey were asked to estimate the average annual cost of rearing a child to the age of 16, including such items of expenditure as food, clothing, nursery fees, education and health care. Table 4 shows that the costs are considerable.

Table 5. Parental minimum estimates of anticipated expenditure on their children's marriage, by county

	Mean anticipated expenditure on marriage (yuan)				Sample size	No response
	Boys		Girls			
	Mean	Median	Mean	Median		
Chongqing	5056	5000	4301	4000	119	9
Wujiang	39,828	40,000	12,965	10,000	119	4

The medians have been included in the table as well as means. The fact that the differences between them are quite small indicates that the results are not unduly influenced by a few extreme estimates of costs.

The mean family incomes in Chongqing and Wujiang are 3852 yuan and 6371 yuan respectively. Clearly parental estimates of the costs of raising children are very high relative to incomes. One child consumes around a quarter of family income. It would not therefore be surprising if for many parents the cost of a second child is prohibitive.

Many mothers complain about the high costs associated with education compared with the past, when schooling was provided for a nominal fee by the collective. Some consider it now to be the single largest child cost. Not only are there substantial direct costs from food, clothing, pocket money and tuition fees, but also social changes have contributed to the increasing indirect costs of inconvenience and lost time. As one mother laments: 'Tuition fees and food are very expensive when children go to school. We have to take them to school and bring them back home every day. Life is so complicated! . . . We are so concerned about their safety. At lunch time every day there are many parents who are waiting for their children outside school.'

Most respondents, however, emphasize the importance of marriage costs in the calculus of childbearing.

Marriage expenses

Parents in the survey were asked to give their 'minimum estimate' of anticipated expenditure on sons' and daughters' marriage, regardless of the gender of their child, or children. They were specifically asked to include expenditure on engagement, house construction, furniture purchase, betrothal gifts, dowry and wedding costs.

Respondents' estimates of the cost of marriage of their children, with which they will later be burdened, are shown in Table 5.

The size of these costs is enormous, representing more than a year's family income in Chongqing, and twice that for daughters in Wujiang, and six times for sons. Such costs would clearly be a major deterrent to childbearing. This very point is made explicitly by some of the respondents. A woman from Wujiang said: 'One son is enough. My husband and I earn about 5000 yuan a year. We have to save money for our sons' marriage. With two sons, we need 100,000 yuan for their marriage. It is terrible.' Very similar remarks were made by respondents from Chongqing.

At marriage the parents of both the bride and the bridegroom incur considerable costs. In China the bride's parents normally pay a 'dowry' to either the couple, or for wedding festivities, or both. It consists normally of such things as furniture, a bicycle and a television. The part of the marriage transaction paid by the bridegroom's parents is called the 'brideprice' (or 'bridewealth', sometimes 'indirect dowry') and goes to the couple, in the form of a house and, less substantially, the wedding feast (Siu, 1993, pp. 167–169 and 181–182).

According to one woman in Wujiang: 'Although the simplified style of marriage procedure [that is, minimal dowry and brideprice] is promoted [by local cadres] in our area, no one listens. Parents and young couples compete with each other in marriage expenditure.' Clearly if this expenditure causes such hardship there must be powerful reasons for its escalation in size and importance. Harrell (1993, p. 80) speculates that 'family strategies of fertility, marriage and division are all affected by the perceived costs and gains to be incurred in having a child, in taking a daughter-in-law or marrying out a daughter, or in dividing the family or keeping it together'. The search for economic advancement and/or security may be regarded as a major motivation in these transactions. Dowries and bridewealth payments are thus the price necessary to gain the economic and cultural benefits of sons-in-law and daughters respectively.

In the context of China in 1991, and of the areas under study, this certainly makes sense. Since the decollectivization of agriculture in the early 1980s the role of local government in the provision of welfare services has progressively weakened. The responsibilities of the village or commune have now been taken over by kinship associations (Davis & Harrell, 1993, p. 18; Croll, 1987). It has therefore become necessary to strengthen these through lucrative wedding transactions (Potter & Potter, 1990).

For those with sons, brideprice has the function of attracting daughters-in-law of the highest possible status. In a study in the Pearl River Delta, Siu (1993) explained that this is motivated by both the demand for female labour; and the desire to discourage children from migrating away, and therefore be permitted by the collective to retain the use of family land. Both counties in this study are likewise situated close to major conurbations, and brideprice would be expected to increase as the competition for wives from prospective partners in the nearby city, and from those with greater wealth in general, intensifies. As Siu (1993, p. 182) puts it: 'A new hierarchy is in the course of defining itself through marriage and marital transfers.'

Siu supports Goody's contention that dowries are large where there is acute competition for status (Davis & Harrell, 1993, p. 11; Goody, 1990). She argues that dowry is often 'a social statement for the upwardly mobile classes'. Its increasing value, however, is due both to the desire for social status and to the expectation that an appropriate marriage would stabilize and advance family or individual economic interests. This tendency has been heightened by the shortage of female labour due to migration of many women to the towns (Siu, 1993).

Interview data in Chongqing and Wujiang Counties consistently highlight the large costs associated with children's marriage, and numerous women describe the hardship which this induces. Nor is it possible to opt out of this competitive system. As one mother explained: 'The cost of marriage for a son is at least 50,000 yuan, including the construction of a house. Without the gift of a house it is difficult for a man to find a wife.'

The wedding feasts too are extremely costly. A Chongqing mother described the size of such banquets: 'Normally the bridegroom's family pays for the feast. They will invite about 80% of the villager group [formerly the 'production team', with a population of a few hundred], together with the family's relatives and friends.'

Neither should it be assumed that such expenditure is the exclusive obligation of the wealthy. A woman from Wujiang said: 'An engagement present is about 1000 to 2000 yuan. If the family cannot afford it, they have to borrow money. Otherwise they will lose face.' This competitive scramble, in which people are obliged to gain the optimal deal for their offspring and themselves, may help to explain why the demand for children is not correlated with income, or with any other indicator of welfare. While the wealthiest quartile estimated anticipated marriage costs as 3-6 times their annual family income, the ratio for the poorest quartile was 1.4, which may represent a comparable burden.

Conclusions

This study has shown that in 1987 individual reproductive behaviour in China failed to conform to a universal, rigorously implemented population policy. Parity progression ratios show that while as many as 16% of women with one daughter will not go on to have a second child, fully 78% of women with one son will do so. These data imply either a spatial range of policies, or great diversity in the demand for children, or perhaps a combination of both.

This diversity in reproductive behaviour is also found in the study area. While at least 14% of women with one daughter in 1991 would have no more because they (or their husbands) were sterilized, 78% of women with a son were not sterilized (and therefore may go on to have a second child), and 22% of women with two children were not sterilized. It is hoped that a study of this diversity in the survey area may cast some light on the overall national picture.

Therefore the purpose of the analysis has been to examine the diversity in reproductive behaviour and contraceptive practice; and to discover whether differentials are influenced by area, or else exist between individuals within areas. If the former, then the explanation may be found in differences in policy formulation and implementation between areas; and if the latter, to demand for children, or else differential application of policy restrictions. The main findings were that:

(1) The distribution of 'anomalous groups' between villages, townships and counties is uniform, as is the distribution of abortions, and of the sex ratios at birth, which may be regarded as policy outputs. Therefore the explanation of the prevalence and distribution of these groups in the study area is to be found at the individual level (within locations) rather than in policy differences between administrative units.

(2) The association between income and number of children is negative, as is that between income and the propensity for uniparous women to remain unsterilized. The theory that privilege may be exercised to gain concessions from birth planning cadres is therefore not supported.

(3) Ideal family size differentials are largely absent, showing that social (education) and economic (income, occupation) characteristics are not responsible for differences in reproductive motivations, and implying that the nature of the demand for children is very different from that in most rural areas of the Third World.

(4) Data on ideal family size by sex of the existing offspring indicate only a weak preference for sons. This is confirmed by the combination of extremely low fertility among women in their early thirties and sex ratios at birth no higher than those of the older mothers. While the low demand for children among couples with one daughter is surprising, the social acceptability of uxori-local marriages, together with the prevalence of village endogamy, lessens their vulnerability.

The low demand for children (only around half of uniparous women want an additional child), and the weak son preference, may both be explained by the prohibitive costs of children, and especially (in Wujiang at least) of sons. This partly results from the expense of education, but most mothers emphasize marriage costs. This applies particularly to the wealthy, perhaps helping to explain their slightly lower fertility, although substantial costs are also incurred by the relatively poor.

The diversity in parity, and in the combination of parity and contraception, may therefore have been a reflection of low demand and therefore random motivation for more children, and sterilization may perhaps have been reserved for those with the determination to have births outside the birth plan.

What then does this study tell us about fertility and population policy in China as a whole? The study area is not of course typical of rural China, the level of development being exceptionally high, and the population policy promoting a strict one-child limit (with regulated exceptions). Nevertheless, the circumstances responsible for the escalating costs of children in the two counties in the period 1980–91 are likely to pertain in growing areas of the country. Since 1991 the privatization of education and health services has further developed; the support of collective institutions has declined, and the replacement of this function by kinship networks has intensified their value. Increasing numbers of rural areas are falling within the catchment areas of large towns, thereby increasing competition for brides, and raising marriage costs.

Since 1990 there is general agreement that population policy has intensified (White, 1994; Greenhalgh, Chuzhu & Nan, 1993), policy flexibility and diversity is discouraged (Greenhalgh & Li, 1993, p. 32), and fertility has fallen throughout China (Zeng, 1996; Feeney & Yuan, 1994). However, the on-going changes outlined above imply that any policy of reproduction restriction for the purposes of population control is likely soon to meet with diminishing resistance, due to high costs and thus low demand for children; and later to be rendered unnecessary in the eyes of government officials, as fulfilled reproductive intentions may in themselves lead to a fertility level below replacement level, as in the industrialized countries of the 'West'.

Such speculation is mirrored in a recent newspaper report, referring to 'sources in Beijing', which claims that the One Child Family Policy is soon to be abandoned in urban areas (Sing Tao Daily, 1997). The Government of China is very concerned about the ageing of the population, and reportedly believes that the cost of urban living is so high that a more liberal policy will not, in any case, lead to a sharp rise in fertility.

References

- AIRD, J. S. (1990) *Slaughter of the Innocents: Coercive Birth Control in China*. The AEI Press, Washington DC.
- ROLL, E. (1985) Fertility norms and family size in China. In: *China's One-Child Family Policy*, pp. 1–36. Edited by E. Croll, D. Davin & P. Kane. MacMillan, London.

- CROLL, E. (1987) Reform, local political institutions and the village economy in China. *J. Communist Stud.* **3**(4), 28–51.
- DAVIS, D. & HARRELL, S. (1993) The impact of post-Mao reforms on family life. In: *Chinese Families in the Post-Mao Era*, pp. 1–22. Edited by D. Davies & S. Harrell. University of California Press.
- FEENEY, G. & YUAN, J. (1994) Below replacement level fertility in China? A close look at recent evidence. *Popul. Stud.* **48**, 381–394.
- GOLDSTEIN, A., WHITE M. & GOLDSTEIN, S. (1997) Migration, fertility, and state policy in Hubei province, China. *Demography* **34**(4), 481–491.
- GOODY, J. (1990) *The Oriental, the Ancient and the Primitive: Systems of Marriage and the Family in the Pre-industrial Societies of Eurasia*. Cambridge University Press, Cambridge.
- GRAHAM, M. J., LARSEN, U. & XU, X. (1998) Son preference in Anhui Province, China. *Int. Fam. Plann. Perspect.* **24**(2), 72–77.
- GREENHALGH, S. (1990) The peasantisation of population policy in Shaanxi: cadre mediation of the state–society conflict. *Research Division Working Papers* No. 21. Population Council, New York.
- GREENHALGH, S., CHUZHU, Z. & NAN, L. (1993) Restraining population growth in three Chinese villages: 1988–93. *Research Division Working Papers* No. 55. The Population Council, New York.
- GREENHALGH, S. & LI, J. (1993) Engendering reproductive practice in peasant China: the political roots of the rising sex ratios at birth. *Research Division Working Papers* No. 57. The Population Council, New York.
- HARRELL, S. (1993) Geography, demography, and family competition in three southwestern villages. In: *Chinese Families in the Post-Mao Era*, pp. 77–102. Edited by D. Davies & S. Harrell. University of California Press.
- LI, L. & CHOE, M. K. (1997) A mixture model for duration data: analysis of second births in China. *Demography* **43**(2), 189–197.
- NYGREN, O. & HOEM, B. (1993) *Fertility Decline in China, 1987–1992: Facts and Preliminary Interpretations* (unpublished paper).
- POTTER, S. & POTTER, J. M. (1990) *China's Peasants: the Anthropology of a Revolution*. Cambridge University Press, Cambridge.
- QIAN, Z. (1997) Progression to second births in China: a study of four rural counties. *Popul. Stud.* **51**, 221–228.
- SELDEN, M. (1993) Family strategies and structures in rural North China. In: *Chinese Families in the Post-Mao Era*, pp. 139–164. Edited by D. Davis & S. Harrell. University of California Press.
- SHORT, S. E. & ZHAI, F. (1998) Looking locally at China's One-Child Policy. *Stud. Fam. Plann.* **29**(4), 373–387.
- SHUE, V. (1988) *The Reach of the State: Sketches of the Chinese Body Politic*. Stanford University Press.
- SING TAO DAILY (1997) *China's Changeable Policy: One-Child Policy Seems to be Abandoned*. 3rd October 1997 (in Chinese).
- SIU, H. F. (1993) Reconstituting dowry and brideprice in South China. In: *Chinese Families in the Post-Mao Era*, pp. 165–188. Edited by D. Davis & S. Harrell. University of California Press.
- THOMAS, N. H. (1995) The ethics of population control in rural China, 1979–92. *Int. J. Popul. Geog.* **1**(1), 3–18.
- TU, P. & SMITH, H. L. (1995) Determinants of induced abortion and their policy implications in four counties in North China. *Stud. Fam. Plann.* **26**(5), 278–286.

- WHITE, T. (1994) Two kinds of production: the evolution of China's family planning policy in the 1980s. In: *The New Politics of Population: Conflicts and Consensus in Family Planning*, pp. 137–158. Edited by J. L. Finkle & C. A. MacIntosh. Population Council, New York.
- WOLF, A. P. & HUANG, C-S. (1980) *Marriage and Adoption in China 1845–1945*. Stanford University Press, Stanford.
- ZENG, Y. (1989) Is the Chinese family planning programme 'tightening up'? *Popul. Dev. Rev.* **15**(2), 333–337.
- ZENG, Y. (1996) Is fertility in China in 1991–92 far below replacement level? *Popul. Stud.* **50**, 27–34.