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Family division in China's transitional economy

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Abstract

Using a longitudinal data-set (the China Health and Nutrition Survey) we explored the effect of various economic factors, including household wealth, employment sector, and involvement in a household business on the division of extended families in China's transitional economy. Results from event history analyses suggest that these economic factors act as either a dividing or a unifying force on the extended family. Household wealth reduces the risk of family division, but the effect is weaker for families in which parents have upper secondary education. In addition, an extended family is more likely to divide when married children work in the state sector. Further, the probability of family division is higher in families where daughters-in-law work in the state sector than in those with sons in this sector. Finally, involvement in a household business for married children increases family stability.

Keywords

family division; extended family; co-residence; economic reforms; China

Introduction

The quest by scholars for an understanding of the relationship between economic development and family change has been under way since the onset of the Industrial Revolution. Although social scientists long ago moved away from the era of structural functionalism, which would have considered family change simply 'a logical result of economic and social development at the macro level' (Engelen 2002, p. 453), the exact mechanisms through which macro-level family trends are achieved are still not well understood. This study was set in China, a country known for its long-standing patrilineal and patrilocal extended family tradition, its unprecedented economic growth in recent decades, and a form of family life that is powerfully shaped by the state. There is little doubt that nuclearization of the family has already taken place in China. The 2000 Census suggested that the nuclear household was the dominant family form (with 14 per cent of households being one-generation, 67 per cent being two-generation, and 19 per cent being three-generation or more) and that the average household size had declined to a historical low of 3.51 (Zeng and Wang 2003).

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It is generally believed that industrialization and education undermine traditional values and instil modern ideology, thereby weakening the extended family and encouraging independent nuclear families. Nonetheless, such explanations, derived from the modernization perspective, offer little guidance on how the process operates at the household or individual level.

Indeed, the trend toward family nuclearization observed in population statistics can be achieved by two independent processes at the micro level: an increasing likelihood for *newly* married couples to start a separate family, or a rising propensity for *existing* extended families to divide. The latter process is an area that has been under-explored. What compels a family to divide? What motivates family members to stay together? I argue that such decisions reflect practical considerations about family organization, the outcome of an intricate interplay among economic interests, cultural preferences, and opportunities and constraints associated with the larger socio-economic context. To date, very little is known about the micro-level determinants of family division (*fen jia*) in contemporary China, especially the effects of economic dynamics in the household. Traditionally, the term *fen jia* has often referred to the division of a joint family, during the process of which sons divide the common property equally and parents (if alive) live alone or live with one of the sons (Lavelly and Wong 1992). In this paper, I use the term more broadly because it applies also to the division of a stem family (parents and one married child), the dominant form of extended family in China (the same definition is also used by Li et al. 2003). Given that China is experiencing rapid market transformation and tremendous growth in economic opportunities for individuals, it is timely to establish the linkage between these economic forces and family processes.

To my knowledge, the study reported here is the first to examine the determinants of family division in post-reform China using a large panel data-set. The particular focus of the study was on the influence of various economic factors, including household wealth, individual employment sectors, and involvement in a household business, all of which reflect some key aspects of the economic transition that China is experiencing. It is worth noting that, although the key independent variables are economic in nature, the underlying mechanisms proposed (as specified below in research hypotheses) are by no means merely economic. For example, we assumed that wealth could either maintain the stability of an extended family or facilitate its breakup, with the outcome ultimately depending upon the wishes of family members, a possible reflection of both economic considerations and cultural aspiration. Further, family division seemed likely to be affected not only by the availability of resources but also by power dynamics in the household, because each family member would have a different vested interest in keeping the family unified or divided. It seemed likely also that effects on the process of family division of a particular type of work activity would differ between family members undertaking it (especially when they differed by sex and generation).

Family structure and family division in China

Extended families dominated in Chinese society in the past and family and kinship ties were guided by a strong patriarchal, patrilineal, and patrilocal tradition. Sons were permanent members of the family line, while daughters left their natal family behind at the time of marriage. Historical research shows that there was great variation in the size and composition of the extended family in China (Fricke et al. 1994; Lee and Campbell 1997). In a study of Chinese family organization, Lang (1946) defined two types of extended families: (i) the 'stem family', including parents, their unmarried children, and one married son with wives and children, and (ii) the 'joint family', comprising parents, their unmarried children, their married sons (more than one), and sons' wives and children. While the four-generational joint family (*si shi tong tang*), where all the sons and their descendants lived under the same roof with their parents, may have been the social ideal, historical research shows that it has never been the norm in China because it requires low mortality rates, economic and social stability, and wealth

(Fei 1939; Freedman 1958; Johnson 1983; Kuroda 1994). Nonetheless, it was common for parents to live together with one of their adult sons. Thus, the leading family pattern in China's history may have been a special type of extended family, that is, the 'stem family' (Lang 1946; Levy 1949; Guo et al. 1996).

A traditional Chinese family (*jia*) is a basic production and economic unit (Judd 1994; Mann 2000). All members of an extended family share a common budget and common property and their work is interdependent. Behind the apparent unity and solidarity of the family lie social relationships that have the potential to become conflictual and that may eventually cause the family to break into smaller units, that is, into conjugal/nuclear families. This process is known as family division (*fen jia*) (Cohen 1976, 1992; Lavelly and Wong 1992). The conflict between family members can arise from the dominance of father over sons, the oppression of daughters-in-law by their mother-in-law, competition between brothers, and quarrels between sisters-in-law (Cohen 1976). Although family division goes against the traditional ideal of family continuity, it is often inevitable, with the major divisive force being economic factors but with the quality of family relationships, local norms, and demographic factors also playing important roles (Cohen 1976, 1992; Freedman 1979).

Since the establishment of the People's Republic of China in 1949, China scholars have studied extensively the impact of macro-level social forces, particularly those of government policies, on traditional Chinese family structure. These scholars have argued, for example, that the Communist Revolution undermined the power of patriarchs and that the ensuing collectivization process and elimination of private property further destroyed the economic motivation to maintain a large joint family (Cohen 1976; Parish and Whyte 1978; Davis and Harrell 1993). It has also been suggested that the Marriage Law of 1950 may have helped to encourage independent nuclear families since it explicitly aimed to replace the 'feudal' patriarchal marriage system with egalitarian marriages, therefore shifting 'the core dyad of the kinship system' from 'the father-son relationship' to 'the husband-wife relationship' and removing the conjugal family from its 'embeddedness in patrilineal and patriarchal structures' (see review by Stockman 2000). Another theme has been that the prevalence of poverty in rural China during the 'collective period' (from the 1950s to the 1970s) made it difficult to maintain a large household (Wang 2000). On the other hand, it has been pointed out that improvement in public health sharply reduced mortality and therefore made multigenerational families demographically possible (Zeng 1986; Tu et al. 1989).

Post-Mao economic reform in 1978 was the beginning of a new era in China, and the question of how the reform has re-shaped urban and rural family life has caught the attention of researchers since the 1980s. As succinctly explained by Whyte (1992), different elements of the reform have led to contradictory arguments about its influence on family structure in rural China. The 'modernizing' perspective suggests that economic development, education, and off-farm employment further undermined extended families and encouraged preferences for nuclear families. On the other hand, the 'tradition restoring' perspective posits that the decollectivization, privatization, and restoration of the family as a production unit in rural areas motivated families to delay division and created incentives for larger households. Both arguments have been empirically evaluated and both have received partial support (Huang 1992; Davis and Harrell 1993; Harrell 1993; Johnson 1993). In urban areas, there is little doubt that the process of nuclearization has been accelerating since the post-Mao reforms, although housing shortages and inadequate resources for the care of children and the elderly continue to make the existence of stem families necessary in the short term (Davis 1993; Davis and Harrell 1993; Unger 1993; Logan et al. 1998).

Following a similar line of inquiry, a number of studies have specifically examined the determinants of family division. In a study of rural families in four provinces of China in the

1980s, Lavelly and Ren (1992)) found that the younger the age at marriage of the adult son, the higher the probability of coresidence with the parents, and that the older the marital cohort, the lower the probability of family division. In a study of three villages in rural China, Li et al. (2003) found that marriage forms (virilocal or uxorilocal), the number of siblings, and the duration of marriage were significantly related to the likelihood of family division. Using field data collected from a village community in south-eastern China, Huang (1992) found that the marriage of the second son in a joint family was most likely to lead to family division.

Other field studies conducted in the 1980s focused on the effect of household economy and village contexts. Some suggested that wealthier families were less likely to divide, while others suggested family division was common in areas positively affected by the economic reforms (Huang 1992; Harrell 1993; Johnson 1993). It was found that incentives to preserve the extended family were greater in villages where reliance on labour-intensive cash crops or cottage industries rewarded unified budgets (Johnson 1993). Similarly, Harrell (1993) found that entrepreneurial families tended to stay longer to pool labour and capital. Interestingly, Johnson (1993) found that structural changes in a village economy had important consequences, not merely for the productive role of women but also for their position as household managers: the increased participation of women in the paid labour force improved their position in the household. In villages where such changes occurred, family division was much more common. On the other hand, family division was much less pronounced in villages still dominated by an agricultural/subsistence economy (Harrell 1993; Johnson 1993). In another study of family histories in a rural Chinese village, Huang (1992) suggested that economic diversification in a village led to the disappearance of traditional extended families.

Much more research is still needed in the area of family division, particularly on the mechanisms of how various economic factors contribute to the maintenance or splitting of an extended family in a country undergoing dramatic socio-economic transition. Except for the consistently documented effect of demographic characteristics, our understanding of the role of household and individual economic activities is far from adequate. Some of the results from the afore-mentioned studies are contradictory (e.g., the effect of household wealth). In addition, most of them are based on small-scale field studies or a survey of a number of villages in rural areas, with the data being limited to family history or retrospective data. More attention was paid to joint families in some of the few in-depth field studies that were undertaken, but the splitting of stem families was not closely examined. To my knowledge, there has been no study on the micro-level determinants of family division using data from a large longitudinal survey in China. The study presented here, using the China Health and Nutrition Survey, examines individual and household resources and dynamics, particularly highlighting the effect of a few economic factors that are unique to China's transitional economy.

Main research hypotheses

In order to examine how economic dynamics within an extended family influence the process of family division, I developed hypotheses to test the effect of several micro-level economic determinants, namely, household wealth, employment sector, and involvement in a household business. In this section, I explain the rationale for highlighting these various indicators of economic resources and employment situation and specify the research hypotheses in detail.

The effect of household wealth

Previous studies of family division in post-reform China obtained conflicting evidence on the effect of wealth. Some suggested that wealthier families were less likely to divide while others indicated that family division was more common in more affluent areas (Davis 1993; Harrell 1993; Johnson 1993). Most of these studies were based on small-scale field studies conducted in the 1980s and were focused on joint families. At the societal level, there is little doubt that

traditional forms of familism have been undermined for decades by the effects of government policies and economic growth, which may seem to suggest that a preference for nuclear families exists and that wealth aids its achievement by facilitating the breakup of an extended family. However, for individual families, the decision to maintain or split a family is an intricate matter, entailing considerations that may override the prescriptions of cultural norms. Thus, the effect of household wealth on family division needs to be understood in conjunction with other family characteristics.

Both negative and positive effects of household wealth are plausible. On the one hand, higher income makes it economically possible for the younger generation to establish an independent household; on the other hand, wealth can ease tension within the family and thus delay the division process. These two arguments are underlain by two entirely different premises: the former assumes that the preference for an independent nuclear family already exists while the latter assumes that the extended family is still considered desirable. Better economic resources simply facilitate the realization of either goal. Thus, I assumed that the effect of household wealth would depend on the preferences of family members, which might not always overlap with one another. In the absence of any direct measure of the desires of different family members, I tested for the conditional effect of household wealth by estimating an interaction term between measures of household wealth and the education levels of parents and married children. Education is often considered a solvent of family ties: the better educated tend to prefer independent residence. This finding has been documented in the literature on living arrangements in many settings (see review by Lavery and Ren 1992; Knodel and Debavalya 1997; Logan et al. 1998; Li et al. 2003).

The effect of employment sector

In China, one's employment sector (state, collective, or private) determines one's position on the social ladder to a large extent. Jobs in the state sector, which typically includes all major agencies, institutes, and enterprises, have been the most prestigious, secure, and profitable (Lin and Bian 1991; Walder 1992; Bian 1994; Bian and Logan 1996). They have often provided housing, medical care, childcare services, pensions, and other social and economic benefits (Whyte and Parish 1984; Walder 1986), many of which are not reflected in the measures of household wealth. Although their advantages may have diminished during the 1990s, jobs in the state sector have remained generally more desirable (Davis 1990; Bian and Logan 1996; Zhou et al. 1997). The collective sector is similar to the state sector, but operates at a more local level, with its assets, capital, and products owned by employees (Bian 1994). Jobs in this sector typically pay less, have less access to resources, and offer fewer benefits to their workers than jobs in the state sector (Maurer-Fazio et al. 1999). Before economic reforms were launched in 1978, state and collective enterprises accounted for virtually all urban employment, while collective farming organized by large communes was dominant in rural areas. The reforms led to a shift away from collectivization and toward privatization. The smallest of the three employment sectors, the private sector grew rapidly: by 80 per cent from 1980 to 1996 (Jefferson and Rawski 1999). Although jobs in the private sector can sometimes be more profitable than those in the state sector, they carry fewer benefits and are more vulnerable to changing government regulations.

The above brief description shows that the employment sector encompasses dimensions of economic resources that are not fully captured by income or wealth, some of which may have strong implications for the process of family division. Among the many advantages that come with employment in the state sector are medical and retirement benefits. In the absence of a pension plan, parents usually have to depend on their children (sons in particular) for support when they are elderly—the arrangement encouraged by cultural norms. Thus employment in

the state sector gives parents economic freedom and perhaps also ‘relieves’ the children of the responsibility of being the sole financial providers and makes co-residence less of a necessity.

The employment of married children in the state sector may also have a positive effect on family division. Although not necessarily the most profitable sector in the 1990s, its stability and associated benefits often cannot be matched by jobs in the other sectors. Many state enterprises offer housing benefits, childcare subsidies, or even on-site childcare facilities. A study conducted in several major cities in the 1990s showed that wages in the state sector comprised 80 per cent of total income and subsidies approximately 17 per cent (Yueh 2004). Thus, for married children, employment in the state sector could mean financial security, housing advantages, and less need for childcare help from parents. Thus, I expected that families with married children employed in the state sector were more likely to divide than those without married children in that sector.

Finally, I expected the effect of employment sector on family division to be influenced by the sexes of the individuals concerned. The prestige and desirability of a job in the state sector confers more bargaining power in the family on anyone with such a job, and is likely to be especially important for a daughter-in-law, whose position in a patrilineal and patrilocal extended family is usually peripheral. The prospect of having her own family unit and of escaping from the duty of supporting the parents-in-law appealed to many women, even in historical China (Johnson 1983). If she has a job in the state sector, the power dynamics in the household could favour the daughter-in-law, making family division more likely.

The effect of involvement in household businesses

One drawback of classifying employment into three sectors is that it treats each sector as a homogeneous one when in fact each contains a variety of enterprises. This is particularly true of the private sector, which includes family farming, domestic private enterprises, household-run businesses, and foreign/ joint ventures. In the post-reform era, the private sector expanded rapidly and helped to create an increasingly diversified economy. Within the private sector, the rise of household businesses (*getihu*) was the most dramatic. From almost none before the reform, they accounted for 9 per cent of China’s urban labour force and 8 per cent of the rural labour force by 1995 (Henderson et al. 2000). As a way of capturing the influence of ‘new’ economic opportunities on family dynamics, I chose to focus on involvement in household businesses in the study reported here.

The profitability of a household business can vary widely. Some may derive modest profits from it to supplement family income, some may make a large fortune, but others will lose money. Because its uncertainty makes such a venture much riskier than a wage job in a factory or in agriculture, there may be advantages in having a larger household. With more individuals in the household, there are more opportunities for diversification of the household economy as a way of minimizing the risk of involvement in a household business. In addition, a unified budget of a larger extended family facilitates capital accumulation. Thus, I expected that, controlling for the effect of household wealth, having a household business might lead to a lower likelihood of family division. Further, I investigated whether the effect was dependent on who was involved in the household business—in the expectation of a generational effect. Because they were more likely to engage in a riskier business and have fewer resources at their disposal than their parents, it seemed likely that married children would be more likely to need the support of a larger family.

Data and methods

This study used data from a longitudinal data-set, the China Health and Nutrition Survey (CHNS), conducted by the Carolina Population Center at the University of North Carolina at

Chapel Hill and the China Academy of Preventive Medicine. The survey began in 1989 and collected economic, demographic, nutrition, and health information from 3,780 households in 188 urban and rural communities. These households were then followed up at intervals of from 2 to 4 years until 2006. Initially the survey was undertaken in eight provinces: Guangxi, Guizhou, Henan, Hubei, Hunan, Jiangsu, Liaoning, and Shandong. In 1997 Liaoning was dropped and replaced by Heilongjiang, another north-eastern province. In 2000 Liaoning rejoined the survey. Approximately 450 million people (about a third of China's population) lived in these provinces in 1989. A stratified multistage cluster design was used in the sampling process. Counties were stratified by income and four counties were then randomly selected in each province. A detailed description of the design of the CHNS can be found at the following website: www.cpc.unc.edu/projects/china.

I define an extended household as one with at least one married child and with his or her spouse co-residing with at least one parent. About 96 per cent of the extended households in the sample are stem families, comprising a married couple and at least one of the parents. They represent the majority of extended families. Fewer than 4 per cent of the households have three generations of married couples living together or have two or three sons and their wives living with parents. They represent the 'true' form of a traditional extended family, and are not common in contemporary China. To simplify the multivariate analysis, I further limited the sample to stem families only. The baseline sample was selected from four waves of the survey: 710 households from the 1991 wave, 142 extended households from the 1993 wave that had been formed since 1991, 286 extended households from the 1997 wave that had been formed since 1993, and another 241 extended households from the 2000 wave that had been formed since 1997. As specified later in detail, a key variable in this study came from the survey of ever-married women, which was not made part of the CHNS until 1991. Therefore, I was not able to use the 1989 survey as a starting point.

Although the CHNS sample is not a nationally representative sample, the prevalence of extended households in the sample (around 20 per cent) is very similar to that found in the 1990 Census (around 19 per cent according to Zeng and Wang 2003). While the proportion of extended families may seem low, it is 5.2 times higher than that in the USA in 2000 (see Zeng and Wang 2003). Although it is common for parents in China to co-reside with their children, they typically do so with only one married child (most often a son) though they usually have more than one child. Therefore, a high coresidence rate for parents translates into a much lower figure for the general population. This point is well illustrated by the analysis presented by Logan et al. (1998), who collected data on both parents and adult children in a survey conducted in two major cities in China. They found that only 21 per cent of adult children (with at least one living parent or parent-in-law) lived with their parents but that 67 per cent of parents lived with at least one adult child.

The baseline sample was followed up in 1993, 1997, 2000, and 2004, depending on which year the observation window started. In each wave of the follow-up survey, questions were asked about whether the household member still lived in the house and if not, when he or she had moved out. Thus, we know whether and when family division occurred. Only when both the husband and the wife of the married couple had moved out of the house, did we consider it a family division. As for duration of an extended household, the household survey unfortunately does not have information on the date when the extended family was established. I therefore made use of the ever-married women survey in CHNS, which records the marriage date of evermarried women under the age of 52 in the household. Because an extended household is typically formed when the adult child (usually the son) gets married, I used this piece of information to calculate the duration of the extended family. Figure 1 shows the frequency of family division by duration of family in years. The number of families experiencing family division was the highest in the first 3 years and gradually declined after that initial period.

Approximately 21 per cent of the families in the baseline sample had divided by 2004. A total of 306 households were lost to follow-up over the years. Among them, 63 were lost due to the change in the CHNS sample, with Liaoning province dropping out of the survey in 1997. These lost cases were not selective. Thus I treated the missing cases as missing at random in the analyses.

It is worth noting that Figure 1 has to be interpreted cautiously because it has been adjusted for left truncation so as to be consistent with the multivariate analyses. For example, for a household that was formed in 1988, the first three records were dropped from the analysis (see more explanation of the conditional likelihood approach in the next paragraph). Thus, as shown in Figure 1, all the families in the sample have either been divided or censored at the 14th year, matching the observation window from 1991 to 2004. For extended families formed before 1991 (about 40 per cent of the sample), the actual duration time ranges from 1 to 51 years, with a median of 20 years, without adjusting for left truncation.

I used discrete-time event history models to estimate the likelihood of division for an extended family. Discrete-time models do not require the proportionality assumptions that are implicit in some other event history methodologies and are well suited for models that include time-varying variables (Allison 1984). The observation window starts from the survey year of 1991 and ends in 2004. Any households that had not divided by the interview date in 2004 were censored. Because an extended household is subject to the risk of division from the date it is formed, households that were formed before 1991 were left truncated. Rather than throwing them out of the sample, I retained these households using a conditional likelihood method, which effectively addresses the problem of sample selection by conditioning the density of a left-truncated case on the cases having survived to the start of the observation window (Guo 1993). Ultimately, I converted the sample of 1,073 households to a sample of 8,344 household-years. For example, for a household that was formed in 1993 and divided in 1997, five records contributed to the sample (1993, 1994, 1995, 1996, and 1997). The basic equation is as follows:

$$\begin{aligned} \log \left(\frac{P(t)}{1-P(t)} \right) \\ = b_0 + b_1 t + b_2 t^2 + b_3 H_{t-1} + b_4 W_{t-1} + b_5 E_{t-1} \\ + b_6 C_{t-1}. \end{aligned}$$

The dependent variable is the log odds of an extended family to divide in a specific year t . All the independent variables in the models are time varying and lagged. Since the CHNS was not conducted yearly, the independent variables were measured in the previous survey year ($t - 1$). For example, for the household-year record of 1992, the dependent variable (whether the household has divided or not) was measured in 1992, while the independent variables were all measured in 1991. Lagged terms are helpful to establish the time order of the causal relationship and the effects of the covariates were not likely to be immediate.

Descriptive statistics of the covariates are provided in Table 1. First, I included several measures of household wealth (W_{t-1}) including deflated household income per person, housing area, and a household goods index, which measures the household's aggregate asset ownership, weighted according to the number and approximate value of consumer durables such as refrigerator, sewing machine, television, VCR, radio cassette player, bicycle, motorcycle, and car (see Korinek et al. 2006 for details on construction of the index). None of the wealth indicators are highly correlated with one another. Second, I examined the effect of two types of employment situation (E_{t-1}): employment sector (state, collective, with the residual being private or not working) and household business. I first distinguished between employment of parents and their married children and then between those of the son and daughter-in-law. I did not decompose employment situations of the parents, because not all households had both

mother and father living there. When defining employment sector of parents and their married children, I coded them to be in the state sector if either the husband or wife worked in the state sector.

A range of variables measuring other household characteristics ($H_t - I$) are included in the model. In preliminary analysis, I included a measure of patrilocal, indicating whether parents live with their married son or daughter. The effect was nonsignificant (results not shown). Given that 90 per cent of the sample are patrilocal families (976 out of 1,073) and that family dynamics could be different within patrilocal and matriloc families, I limited the event history analyses to the sub-sample of patrilocal families, resulting in a sample size reduction from 8,344 to 7,591 household-year records. Next, I controlled for both the duration time t and a squared term of the duration time t^2 in the model, given a non-linear relationship between duration and likelihood of family division (see Figure 1). I also included whether there were children aged 0–6 and 7–14 in the household. Previous research suggested that grandparents were important alternative child caregivers in China (Chen et al. 2000; Short et al. 2002). Thus, the presence of preschool and school-aged children could possibly delay the division process because grandparents provide essential help for childcare. In preliminary analysis, I explored further decomposition of the preschoolaged children, by examining the effect of birth (children aged 0–1), presence of very young children (aged 0–3), as well as the gender composition of the children. None of the effects were significant or different. I also controlled for the age of daughter-in-law in the model. I expected that the younger the age, the more open she would be to non-traditional ways of living. Additionally, I used another proxy to gauge living arrangement preference, that is, the educational level of parents and their children. Parents and their married children were considered to have upper secondary education as long as one member of the married couple had it. I expected that those with upper secondary education or higher were more likely to prefer independent households. As seen in Table 1, the parent generation is much less likely to have upper secondary education or more than their children (6 per cent vs. 30 per cent).

Finally, I included community characteristics (C_{t-1}) in the model. The CHNS defines the residential type by the locality's official administrative category (rural vs. urban) in the *Hukou* (state household registration) system, one which has taken full effect since the 1960s as a way for the state to exercise tight control over rural-to-urban migration (Cheng and Selden 1994). The *Hukou* system (currently under reform) routinely provided urban residents subsidized food, housing, health care, and retirement benefits while it offered virtually none of these vital services to rural residents, resulting in sharp differences not only in terms of economic development, but also in old-age support as well as cultural norms in urban and rural areas. Given possible differences in family structures and dynamics in rural and urban China, I tested for interaction terms between urban/rural residence and all key independent variables. None of the effects were significant. Because the official urban/ rural definition often lags behind the actual trend of urbanization, I used other variables in the CHNS community survey to assess its community economic context. They included per cent of agricultural labour force, number of local enterprises with more than 20 employees, and per cent of labour force working out of town for more than 1 month in a year.

Since the data were collected using a multistage cluster design, conventional estimates of standard errors may not be accurate, owing to the assumption of independence of observations. Therefore, I used the Huber/White/Sandwich estimator of robust standard errors to adjust for clustering at the community level (StataCorp 2001).

Results

Results from the discrete-time event history analyses are presented in Table 2, Table 3, and Table 4, corresponding to three major hypothesis tests regarding the effect of household wealth, employment sectors, and household businesses. Before I proceed to the discussion on economic dynamics in the household, I first draw attention to some baseline household and community characteristics, which play indispensable roles in expediting or delaying the process of family division and in many ways help to contextualize the influence of economic factors.

I begin with Model 1 in Table 2, which is a reduced model including variables such as household structure, socio-demographic characteristics of household members, duration time, and community characteristics. Most of the variables operate in expected directions and their effects remain stable across models. The results of the analyses suggest that family division responds to the needs of the family, particularly those of the younger generation. Presence of children, particularly young school-aged children decreases the risk of family division. On the other hand, the needs of parents, measured by their health status and whether they have medical insurance, are not statistically significant. As expected, education level matters, but only that of the parents. For parents with upper secondary education or higher, the family is almost twice as likely to divide (corresponding to a log odds of 0.612 in Model 1 in Table 2). This effect is somewhat attenuated when employment sectors are later introduced into the analysis, but remains significant and strong. I interpret the positive association between education and probability of family living as an indication of a preference for separate living arrangements by the better educated. It is possible that the more educated could have 'more' and 'more distant' job opportunities leading to family division. However, given that the observed significant effect is that of the education level of the parents, whose average age is above 50 and who do not experience much job mobility at that life stage in China, it is reasonable to interpret the effect as a matter of preference. Consistent with the effect of education, the age of the daughter-in-law in the family is negatively associated with the hazard of family division. Because the duration time of an extended family is controlled in the models, this effect can be again interpreted as a difference in age in terms of preference for independent households.

In addition, the community context is important. Urban households are more likely to divide than their rural counterparts in the baseline model. This is not surprising at all, given that traditional norms are more deeply rooted in the rural areas. In addition, rural households are more likely to engage in a variety of economic activities, including agricultural fieldwork and sideline activities such as gardening and animal husbandry. As a result, rural households are more likely to coordinate between family members and are thus more dependent upon each other. Although the effect of urban residence disappears when the economic variables are introduced in the model, other community characteristics such as per cent of agricultural labour force and per cent of labour force working out of town for more than 1 month in a year continue to exert a similar influence on risks of family division.

The rest of the results section focuses on several major economic variables. In Table 2, three indicators of household wealth are added to the analysis in Model 2. Among them, the index of household goods has a statistically significant and negative effect on family division. This suggests that wealth may help to delay the establishment of independent households, rather than facilitating the breakup of an extended family, controlling for other household and community characteristics. Nonetheless, the next model (Model 3 in Table 2) demonstrates that the effect of household wealth is conditional upon the education of household members, particularly the education of the parents. The positive effect of an interaction between parents' educational level and the household goods index suggests that the stabilizing effect of household resources on family division is moderated by parents' education, used as a proxy for preference for independent living. The effect of the household goods index is weaker in

households where parents have upper secondary education. This finding supports the hypothesis that the effect of household wealth depends on the preferences of family members.

In the next set of models, I examine the effect of employment sectors for different family members while controlling for household wealth and other household and community characteristics (see Models 1–4 in Table 3). First, I add employment sectors of married children (and their spouses) and those of the parents. The results suggest a clear generational difference. Employment of married children in the state sector has a statistically significant positive effect on family division. Compared with other families, the odds of family division (Model 1, $\exp(0.825) = 2.28$) are twice as high when married children are employed in the state sector. In contrast, parents' employment in the state sector does not have a significant effect.

However, when I decompose the employment sector of the married children into that of sons and daughters-in-law, a clear gender difference emerges. I first examine the effect of the employment sector of the daughter-in-law and the son separately and then jointly (see Models 2, 3, and 4 in Table 3). The daughter-in-law's employment in the state sector (relative to the private sector) has a significant and positive effect on family division (with a coefficient of 0.915 in Model 2). In contrast, the effect of the son's employment in the state sector is much weaker in size (with a coefficient of 0.666 in Model 3) and becomes insignificant when both the son's and the daughter-in-law's employment sector are included in the same model. The effect of the daughter-in-law's state sector employment continues to be significant in the full model, increasing the odds of family division by 2.15 (exponentiating the log odds of 0.768 in Model 4).

The gendered effect suggests that the process of family division may be affected by factors other than the availability of economic resources. If resources were all that mattered, I would expect the son's state sector employment to have a stronger effect than that of the daughter-in-law, because there is a persistent gender gap in earnings in China, with men being much better paid than women in all sectors (Bian and Logan 1996; Shu and Bian 2003). The same can be said about housing benefits and other subsidies, which also favour men (Bian 2002). The fact that I observe just the opposite suggests that power dynamics in the household may influence the process of family division, independently of the effect of economic resources. The daughter-in-law, with her 'peripheral' position in a patrilocal extended family, is most likely to be positively inclined toward family division. Economic advantages can substantially increase her power position in the household. This may give her the upper hand in dealing with conflicts with the father- or mother-in-law and may eventually lead to division of the family.

In the next section of the analysis, I turn attention to the role of household business involvement in family division. Interestingly, instead of being a catalyst for family change, having a household business seems to have a stabilizing effect, although it depends on which family member is involved in the business. Household business matters, but the effect is evidently generational. First, having a household business in general has no significant effect on family division (see Model 1 in Table 4). Nonetheless, when I examine the involvement of married children and parents separately, I find that for an extended family the odds of division fall by half when married children are involved in a household business. The involvement of parents has no significant effect (see Model 2 in Table 4). There is no gender effect as I further decompose the household business involvement of married children into that of sons and daughters-in-law (see Model 3 in Table 4).

A larger household is more efficient in bringing more resources together, which is important for the start up as well as the survival of a household business. An extended household also has an advantage in that it has a larger labour pool. In addition, a household business involves higher risks than a regular wage job or agricultural fieldwork. In an extended household, people

have a better chance of coordinating and diversifying the household economy, which could help to minimize the risk (Short and Zhai 1996). It is interesting that we observe a significant generational difference in effect. The stronger effect on the part of the married children is expected. Married children are almost 3 times more likely to engage in household businesses than parents (see Table 1). Younger people are more likely to be key players in household businesses; they probably have fewer resources and are more likely to need help.

Summary and conclusions

Economic reforms have dramatically turned China's economy around since the late 1970s. Researchers have paid a great deal of attention to the linkage between economic growth and changes in family structure, particularly to its implications for the traditional sets of family obligations, customs, and values. This paper comes from this same line of inquiry albeit at a different angle. Rather than extrapolating societal trends or describing the process of family changes in a dichotomy of traditional vs. modern family, I sought evidence of the direct intersection of economic and family dynamics at the household level. I contend that the decision about whether to divide or maintain an extended family is shaped by the particular social and economic situation of the family and its individual family members, as well as their economic needs and preference.

Findings from event history analyses using a longitudinal data-set indicate that the division of an extended family in China is associated with various socio-economic and socio-demographic factors and that several different mechanisms are in operation. First, it was found that household wealth decreases the risk of family division in urban and rural China. On the surface, this finding seems to suggest historical continuity, given that wealth helps to ease tension and consequently increases family stability. It may seem somewhat surprising because the general perception is that a normative shift has been under way in China and that wealth should facilitate family division. However, for individual family members, the decision to maintain or divide the family is hardly a matter of 'tradition restoration' or 'modernization'. Cultural norms do matter, but not in an abstract way. The significant effect of education and the conditional effect of wealth by education on family division well illustrate the influence of individual preferences.

On the other hand, measures of wealth or income do not capture economic resources that are available to individuals or the family in its entirety. Unique to the Chinese labour market, the employment sector reflects one's socio-economic status better than occupation or most other indicators of social stratification (Lin and Bian 1991; Bian 1994). Working in the state sector is associated with substantially higher benefits than the other sectors, including better housing, childcare service, as well as pensions. As such, I find that state sector employment for married children promotes family division. In a way, the finding also demonstrates the continuing influence of the state on family life despite its decline in power in the 1990s. Whereas better economic resources facilitate the establishment of conjugal families, power dynamics within the household also play an important role. This is reflected in the finding that a state sector job for a daughter-in-law has a stronger effect on the likelihood of family division than that for a son. While the household is often considered an essential economic unit, particularly in rural China, individual family members often have varied needs and interests, which may either overlap or conflict with those of the other members or of the extended family. Hence, the stability of the family may depend on equilibrium of individual and family goals. When they are dissonant with each other, the extended family is prone to break up. The daughter-in-law tends to have more status and power in the household with a state sector job. Because she is the one who usually prefers to have her own household, this kind of job may help to accelerate family division.

Finally, unlike the effect of wealth or state sector employment, involvement in a household business for the married children exerts a conservative effect on the process of family division. As an emergently innovative form of employment in the post-reform era, household businesses are subject to the risks and opportunities that are associated with independent entrepreneurship. An extended family has an advantage in that it helps to dilute risks, to unify budgets, and to facilitate labour coordination among family members. This effect can be interpreted from the framework of family adaptive strategies (Tilly and Scott 1978; Moen and Wethington 1992). In a less developed country such as China, family members often have to work together in the face of economic hardship and limited economic opportunities. Maintaining a larger extended family is one way to minimize risks and to sustain economic activities that are potentially profitable for the whole family. The basis for such family arrangement may have little to do with cultural goals but have everything to do with economic necessity.

The study has several limitations. First, the CHNS is a household survey. Detailed information is provided on each individual living in the same house, but not much is known about conditions beyond the household. Once household members move out of a household, they are not followed up. We know that around a quarter of those who moved out of the household stay in the same village or neighbourhood and more than half of them remain in the same county or city. In addition, cross-sectional data analysis of the CHNS reveals that close to a third of married children have parents as their neighbours. Thus, it is likely that the tie between the generations remains strong after the establishment of independent households. Literature suggests that family members who do not live in the same household but close by actually maintain a high level of contact and exchange, reflecting the concept of the 'networked family' or 'quasi-co-residence' (Unger 1993; Knodel and Chayovan 1997; Ofstedal et al. 1999). Thus, family division should not be viewed as dissolution of family ties. Indeed, the household and family are two different entities and the boundary of a family can be more fluid than that of the household. In future research, I plan to study the consequences of family division for intergenerational ties, particularly its implication for parental support in old age, a topic of increasing concern among the public and scholars alike, given the rapid ageing of the population in China. Second, I do not have any direct measure of preferences of individual family members, nor is there any direct measure of power in the CHNS data. The interpretation of power dynamics and potential conflicts of interests is inferred by the use of proxy variables such as a decomposition of education and economic factors by generation and gender. The actual power bargaining and decision-making process remains unknown. To address the question of whether the household is a meaningful decision-making unit and the interplay of power dynamics, we need to supplement the survey data with quality focus group or in-depth interview data in the future. Third, because the vast majority of families in the analytical sample are stem families, joint families are excluded from the analysis. Similarly, the small proportion of uxrilocal (matrilocal) families in the sample also prevents me from making any direct comparison between matrilocal and patrilocal families. Again, we can greatly benefit from in-depth interview or field studies in the future.

Despite these limitations, the findings in this paper have important implications. Instead of being a hierarchical structure, the contemporary extended family (mostly stem family) is a much more cooperative and adaptive unit than its historical counterpart. The decision to maintain or split the family could very well be an outcome of ongoing negotiation between the generations. The effect of family wealth is conditioned by parents' education. On the other hand, employment sector of the married children's generation and their household business involvement each influence the family division process in a different way. In their influential work on family patterns in the 1970s in rural China, Parish and Whyte (1978, p. 337) suggested that individuals were best seen not as 'ardent Confucianists or as modernizing men or as new socialist men, but as flexible, family oriented individuals striving to deal with the unique set of problems and opportunities existing in their local village environment in order to maximize

the security and satisfaction that this environment can provide'. The same can be said of families and individual family members 20 years later in the era of post-Mao reforms. In essence, the decision about whether to divide or maintain the extended family reflects pragmatic management of the family organization, which is a complex interaction between human agency, cultural aspiration, and the larger social and economic structure.

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Figure 1.

Number of families divided by years of duration *Note:* The years of duration have been adjusted for left truncation using the conditional likelihood method.

Source: China Health and Nutrition Survey, 1991, 1993, 1997, 2000, 2004

Table 1
Descriptive statistics of selected independent variables used for a study of family division in China ($N=7,591$)

	Mean	Std dev.
<i>Household characteristic</i>		
Age of daughter-in-law	36.423	8.937
Whether there are children aged 0–6 years in the house	0.334	0.472
Whether there are children aged 7–14 years in the house	0.478	0.500
Health status of parents (1=poor, 4=excellent)	2.278	0.804
Whether parents have medical insurance	0.165	0.371
Whether parents have upper secondary education	0.064	0.245
Whether married children have upper secondary education	0.298	0.458
<i>Community characteristics</i>		
Urban (1=urban, 0=rural)	0.270	0.444
Per cent in agricultural labour force	47.235	34.057
Number of enterprises with ≥ 20 employees	28.099	70.706
Per cent of labour force working out of town	25.643	23.068
<i>Household wealth</i>		
Logged income per person	6.818	0.910
Household goods index	7.683	4.775
Logged housing area (in square metres)	4.557	0.557
<i>Employment sector of parents and married children</i> (private sector or not working as residual)		
Whether married children employed in state sector	0.169	0.374
Whether married children employed in collective sector	0.154	0.360
Whether daughter-in-law employed in state sector	0.107	0.309
Whether daughter-in-law employed in collective sector	0.089	0.285
Whether son employed in state sector	0.146	0.353
Whether son employed in collective sector	0.123	0.329
Whether parents employed in state sector	0.046	0.209
Whether parents employed in collective sector	0.061	0.239
<i>Household business</i>		
Whether the family has a household business	0.224	0.417
Whether married children involved in a household business	0.192	0.394
Whether daughter-in-law involved in a household business	0.092	0.289
Whether son involved in a household business	0.163	0.370
Whether parent(s) involved in a household business	0.060	0.238

Source: China Health and Nutrition Survey, 1991, 1993, 1997, 2000, 2004.

Table 2
Effects of household wealth and other variables on family division in China.
Discrete-time event history models ($N = 7,591$)

	Parameter estimate		
	Model 1	Model 2	Model 3
<i>Household characteristic</i>			
Age of daughter-in-law	-0.106*** (0.014)	-0.104*** (0.014)	-0.106*** (0.014)
Whether there are children aged 0–6 years in the house	-0.432* (0.191)	-0.345 (0.194)	-0.326 (0.194)
Whether there are children aged 7–14 years in the house	-0.838*** (0.184)	-0.792*** (0.181)	-0.792*** (0.183)
Health status of parents (1 =poor, 4 =excellent)	-0.078 (0.089)	-0.031 (0.089)	-0.034 (0.090)
Whether parents have medical insurance	0.135 (0.223)	0.226 (0.235)	0.221 (0.238)
Whether parents have upper secondary education	0.612** (0.230)	0.658** (0.231)	3.503 (2.824)
Whether married children have upper secondary education	0.073 (0.182)	0.002 (0.187)	1.403 (1.657)
Number of years since family established	0.165* (0.081)	0.167* (0.082)	0.172* (0.082)
(Number of years since family established) ²	-0.016* (0.008)	-0.017* (0.008)	-0.017* (0.008)
<i>Community characteristics</i>			
Urban (1 = urban, 0 = rural)	0.444* (0.204)	0.411 (0.221)	0.364 (0.231)
Per cent in agricultural labour force	-0.005 (0.003)	-0.007* (0.003)	-0.007* (0.003)
Number of enterprises with ≥ 20 employees	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)
Per cent of labour force working out of town	0.007* (0.003)	0.007* (0.003)	0.007* (0.003)
<i>Household wealth</i>			
Logged income per person	-	0.040 (0.094)	0.054 (0.109)
Household goods index	-	-0.055* (0.022)	-0.054* (0.023)
Logged housing area (in square metres)	-	-0.132 (0.145)	-0.012 (0.184)
Household goods index $\times$ Education of parents	-	-	0.131** (0.048)

	Parameter estimate		
	Model 1	Model 2	Model 3
Household goods index $\times$ Education of married children	-	-	-0.068 (0.045)
Logged income per person $\times$ Education of parents	-	-	-0.183 (0.229)
Logged income per person $\times$ Education of married children	-	-	0.005 (0.199)
Logged housing area $\times$ Education of parents	-	-	-0.616 (0.491)
Logged housing area $\times$ Education of married children	-	-	-0.216 (0.318)
Constant	0.140 (0.548)	0.694 (1.071)	0.006 (1.241)
Wald Chi-square	168.39	177.43	208.87
Degrees of freedom	13	16	22

Note: Robust standard errors in parentheses, adjusted for clustering at the community level.

 $p \leq 0.001$

**
 $p \leq 0.01$

*
 $p \leq 0.05$, two-tailed test.

Source: As for Table 1.

Table 3
Effects of employment sector and other variables on family division in China.
Discrete-time event history models ($N=7,591$)

	Parameter estimate			
	Model 1	Model 2	Model 3	Model 4
<i>Household characteristic</i>				
Age of daughter-in-law	-0.104 *** (0.015)	-0.101 *** (0.014)	-0.103 *** (0.015)	-0.102 *** (0.015)
Whether there are children aged 0–6 years in the house	-0.341 (0.195)	-0.325 (0.199)	-0.329 (0.193)	-0.316 (0.196)
Whether there are children aged 7–14 years in the house	-0.735 *** (0.179)	-0.732 *** (0.181)	-0.746 *** (0.179)	-0.726 *** (0.180)
Health status of parents (1=poor, 4=excellent)	-0.069 (0.090)	-0.071 (0.092)	-0.066 (0.089)	-0.077 (0.091)
Whether parents have medical insurance	0.166 (0.232)	0.146 (0.229)	0.200 (0.233)	0.164 (0.229)
Whether parents have upper secondary education	0.549 * (0.243)	0.559 * (0.246)	0.541 * (0.239)	0.545 * (0.241)
Whether married children have upper secondary education	-0.177 (0.187)	-0.201 (0.187)	-0.126 (0.186)	-0.222 (0.186)
Number of years since family established	0.179 * (0.080)	0.177 * (0.083)	0.174 * (0.083)	0.179 * (0.083)
(Number of years since family established) ²	-0.018 * (0.009)	-0.018 * (0.009)	-0.017 * (0.009)	-0.018 * (0.009)
<i>Community characteristics</i>				
Urban (1=urban, 0=rural)	0.391 (0.225)	0.356 (0.230)	0.395 (0.226)	0.365 (0.231)
Per cent in agricultural labour force	-0.002 (0.003)	-0.003 (0.003)	-0.003 (0.003)	-0.002 (0.004)
Number of enterprises with ≥ 20 employees	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)
Per cent of labour force working out of town	0.007 * (0.003)	0.007 * (0.003)	0.007 * (0.003)	0.007 * (0.003)
<i>Household wealth</i>				
Logged income per person	-0.038 (0.097)	-0.043 (0.099)	-0.020 (0.095)	-0.056 (0.099)
Household goods index	-0.061 *** (0.022)	-0.061 ** (0.022)	-0.056 * (0.022)	-0.059 ** (0.022)
Logged housing area (in square metres)	-0.097	-0.093	-0.116	-0.091

	Parameter estimate			
	Model 1	Model 2	Model 3	Model 4
	(0.148)	(0.152)	(0.149)	(0.151)
<i>Employment sector of parents and married children</i>				
Whether married children employed in state sector	0.825 ^{***}	-	-	-
	(0.216)			
Whether married children employed in collective sector	0.393	-	-	-
<i>(private sector or not working as reference category)</i>	(0.205)			
Whether daughter-in-law employed in state sector	-	0.915 ^{***}	-	0.768 ^{**}
		(0.234)		(0.252)
Whether daughter-in-law employed in collective sector	-	0.463	-	0.279
<i>(private sector or not working as reference category)</i>		(0.246)		(0.268)
Whether son employed in state sector	-	-	0.666 ^{**}	0.332
			(0.223)	(0.247)
Whether son employed in collective sector	-	-	0.411	0.356
<i>(private sector or not working as reference category)</i>			(0.232)	(0.255)
Whether parents employed in state sector	0.265	0.328	0.254	0.274
	(0.328)	(0.349)	(0.354)	(0.359)
Whether parents employed in collective sector	0.474	0.454	0.457	0.432
<i>(private sector or not working reference category)</i>	(0.310)	(0.317)	(0.319)	(0.323)
Constant	0.689	0.754	0.685	0.734
	(1.055)	(1.091)	(1.051)	(1.078)
Wald Chi-square	202.46	198.93	192.94	202.76
Degrees of freedom	20	20	20	22

Note: Robust standard errors in parentheses, adjusted for clustering at the community level.

 $p \leq 0.001$

**
 $p \leq 0.01$

*
 $p \leq 0.05$, two-tailed test.

Source: As for Table 1.

Table 4
Effect of involvement in household business and other variables on family division
in China. Discrete-time event history models ($N = 7,591$)

	Parameter estimate		
	Model 1	Model 2	Model 3
<i>Household characteristic</i>			
Age of daughter-in-law	-0.103 *** (0.014)	-0.101 *** (0.014)	-0.101 *** (0.014)
Whether there are children aged 0–6 years in the house	-0.321 (0.193)	-0.318 (0.193)	-0.324 (0.192)
Whether there are children aged 7–14 years in the house	-0.760 *** (0.179)	-0.749 *** (0.179)	-0.743 *** (0.180)
Health status of parents (1 = poor, 4 = excellent)	-0.039 (0.089)	-0.041 (0.089)	-0.039 (0.090)
Whether parents have medical insurance	0.195 (0.235)	0.186 (0.234)	0.168 (0.235)
Whether parents have upper secondary education	0.661 *** (0.227)	0.633 *** (0.233)	0.634 *** (0.209)
Whether married children have upper secondary education	0.018 (0.187)	0.009 (0.187)	0.010 (0.188)
Number of years since family established	0.169 * (0.082)	0.167 * (0.082)	0.168 * (0.082)
(Number of years since family established) ²	-0.017 * (0.008)	-0.017 * (0.008)	-0.017 * (0.008)
<i>Community characteristics</i>			
Urban (1 = urban, 0 = rural)	0.395 (0.222)	0.419 (0.226)	0.422 (0.227)
Per cent in agricultural labour force	-0.007 * (0.003)	-0.007 * (0.003)	-0.007 * (0.003)
Number of enterprises with ≥ 20 employees	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)
Per cent of labour force working out of town	0.007 * (0.003)	0.007 * (0.003)	0.007 * (0.003)
<i>Household wealth</i>			
Logged income per person	0.065 (0.097)	0.064 (0.090)	0.065 (0.095)
Household goods index	-0.054 * (0.022)	-0.054 * (0.021)	-0.053 * (0.021)
Logged housing area (in square metres)	-0.099 (0.144)	-0.097 (0.143)	-0.094 (0.143)
<i>Household business</i>			
Whether the family has a household business	-0.376	-	-

	Parameter estimate		
	Model 1	Model 2	Model 3
	(0.224)		
Whether married children involved in a household business	-	-0.648*	-
		(0.261)	
Whether daughter-in-law involved in a household business	-	-	-0.608
			(0.378)
Whether son involved in a household business	-	-	-0.446
			(0.334)
Whether parent(s) involved in a household business	-	0.078	0.050
		(0.283)	(0.287)
Constant	0.437	0.354	0.362
	(1.069)	(1.060)	(1.052)
Wald Chi-square	179.84	176.62	183.06
Degrees of freedom	17	18	19

Note: Robust standard errors in parentheses, adjusted for clustering at the community level.

 $p \leq 0.001$

**
 $p \leq 0.01$

*
 $p \leq 0.05$, two-tailed test.

Source: As for Table 1.