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EIGHT

## Gender Differentials in Economic Success

Rural China in 1991

*Ethan Michelson and William L. Parish*

This chapter examines three interrelated propositions about the sources of men's and women's educational and economic success in the countryside. The first proposition is that *patriarchy matters*. Because sons provide current income and future old age security, parents continue to invest more in their sons' than their daughters' future. Believing that married women will devote more time to their family than men do, employers continue to favor men over women. The second proposition is that *economic development weakens patriarchy*. Once parents have more money to share among children (and fewer children competing for the same resources), they divide family resources more evenly between sons and daughters. And when economic development causes labor shortages, some employers begin to ignore gender. The third proposition is that *family connections count*. Having parents in favorable occupational situations increases one's chances of getting a good education and a good job. This proposition is more true for sons than for daughters, and it is more true for parents in administrative positions than for parents who have a good white-collar job.

### SCHOLARLY DEBATES

#### *Patriarchy*

While there is ample debate around each of our propositions, the patriarchy proposition is perhaps the least debated, even though in the existing literature there is uncertainty about the extent to which patriarchal tendencies were strengthened in China after 1978. Even under collective farming, current income and old age support depended primarily on sons (e.g., K. Johnson 1983; Potter and Potter 1990; Parish and Whyte 1978; M. Wolf

1985). This promoted a favoritism toward sons that could only be strengthened by the return to family farming in the early 1980s. There is also ample anecdotal evidence that local employers, newly freed from state labor bureau control (in state enterprises) and never under tight control in the rapidly growing private enterprise sector, exercised their new autonomy to favor men over women (Jacka 1990; B. Liu 1995). One result was an apparent tendency for agriculture to become feminized as men left the village for more lucrative off-farm jobs (Croll 1994; Gao 1994; Judd 1994; chap. 11 of this volume).

#### *Development*

The second proposition, that economic development weakens the effects of patriarchy, is highly controversial. There is a large literature suggesting that market development, particularly development spurred by exposure to the world capitalist system, exacerbates the situation of women relative to men. Boserup's (1970) classic statement on these tendencies in Africa has been reinforced many times over by ethnographic evidence from all parts of the world (Benería and Feldman 1992; Lee 1995; Nash and Kelley 1983; Papanek 1990; Tinker 1990; Ward 1990b). Even when young, unmarried women benefit because of the demand for nimble young fingers to make the clothing, toys, and electronic goods desired in the international market, married women are often excluded from the more lucrative parts of the labor market.

These tendencies may be more severe in East Asia than elsewhere. Based on research in contemporary Japan, Brinton (1993) suggests that women are greatly disadvantaged by a human capital development system dominated by parents. Assuming that few good jobs are open to women and that a woman's future is more highly shaped by whom she marries than by where she works, parents steer their daughters into types of education and types of jobs that provide little career potential. Educators and employers complete the formation of a system that makes it unlikely that women will succeed economically. With poignant data from Taiwan, Greenhalgh (1985) suggests that similar problems exist in Chinese cultural contexts. Desiring to get a quick return on an investment in daughters, parents have their daughters quit school early so that the daughter can work to support the son's further education. While sons get a chance to experiment in jobs that provide valuable training for long-term career mobility, daughters are relegated to dead-end jobs that provide good current income but few career prospects. In a series of wonderful personal vignettes, Salaff (1981) documents similar tendencies in the 1970s in Hong Kong, while Kung (1983) illustrates some of the same issues in factory work in Taiwan. With data on pre-World

War II world-market silk production, Bell (1994) reports similar negative consequences for rural women in the Yangzi Delta Region of China.

While the many ethnographic and other accounts are compelling, there is ample evidence that things do not always develop in a simple linear fashion. Lim (1990) argues that many of the negative consequences of production for the world market are short-lived. Others note that even though the conditions in factories are frequently appalling by developed country standards, women often report the work and personal income to be liberating (e.g., Stichter 1990; D. Wolf 1992). In silk-producing regions near Guangzhou, before World War II, Topley (1975) and Stockard (1989) found that work in silk factories gave women more autonomy in marriage arrangements. Examining Chinese rural data for around 1930, M. Johnson, Parish, and Lin (1987) argue that world market production improved the situation of rural women.<sup>1</sup>

One possible inference from these diverse findings is that one needs to pay more attention to variation by time and space. Examining Taiwan patterns at a later date, Parish and Willis (1993) report that many of the negative consequences reported by Greenhalgh, Kung, and others were short-lived. Once development provided more income, parents began to invest more equally in sons' and daughters' education and work. Similarly, comparing women's work in Taiwan and South Korea, Brinton, Lee, and Parish (1995) suggest that the outcomes for women depend greatly on how work is organized. Where work is organized in large, capital-intensive firms, men are greatly favored. Where work is organized in small, labor-intensive firms, high levels of labor demand and flexible production schedules tend to draw married as well as unmarried women into the labor market. The result of these tendencies is that married women in Taiwan remained in the formal labor market and received greater income advantages than women in South Korea.

These observations suggest the need for a more differentiated set of propositions about the consequences of economic development and world market production. In the initial stages of development, lingering patriarchal norms may well slant opportunities toward men. At later stages—assuming that production is organized in small, competitive firms emphasizing labor-intensive light industry—married and unmarried women may gain many of the same advantages as men. Parents may be able to spend more on their daughters' education. Employers, finding few men available in local labor pools, may begin to hire more married as well as unmarried women. It takes a period of time for these processes to work out. Unmarried women would enter the best jobs first and then be forced to leave these jobs by de facto marriage bars. But, in time, the stage would be set for a more extensive reworking of the labor market for married and unmarried women.<sup>2</sup>

### *Social Capital*

Our third proposition is that social capital matters in a gender-differentiated manner. Social capital here consists of family background and family connections. It is commonplace to note that parents' education and occupation are closely related to children's education and occupation. This pattern is common not only in market societies but also in socialist societies. Despite the mighty strives to weaken parentally induced advantage in past decades, these advantages are still strong in China (e.g., Bian 1994; Whyte and Parish 1984). What is less commonplace in the scholarly literature is to note whether males are particularly advantaged by family connections and whether parents in administrative jobs are uniquely positioned to help their family members.

With data from Tianjin, China's third largest city, Lin and Bian (1991) find that sons are greatly advantaged by having a father who worked in a high status work unit. To use an American expression, a son can be born with a "silver spoon in his mouth." Daughters do not share in this "silver spoon" syndrome. They have to earn their education and occupation advantages the "old-fashioned way," excelling in school or through other kinds of personal effort. This kind of differential advantage, of course, is consistent with a lingering patriarchal emphasis, where even urban parents use their social capital more for their sons than for their daughters (see chap. 16). This chapter examines whether these tendencies to use social capital to advantage sons more than daughters also exist in the countryside.

Both sons and daughters might be uniquely advantaged by having kin in administrative positions. Examining this issue has been somewhat of a growth industry in American studies of China. Victor Nee (1989, 1991, 1992, 1996) leads the optimists in claiming that market forces are erasing the advantages of administrative leaders—if not in the country as a whole, at least in the more marketized coastal regions, and particularly in comparison to the rising star that is the new rural entrepreneurial class. Others are more skeptical. With systematic data from the late 1980s, Parish and Michelson (1996) find that much of the administrator advantage has continued, even in the more marketized regions. There is also ample anecdotal evidence of a continuing (some say, intensifying) tendency for people to use gifts, favors, banquets, and other special connections to get the best jobs and to guarantee success in business (P. C. C. Huang 1990, 294; Yan 1995, 1996; M. M. Yang 1994).

The debate may be partially solved by noting that there are not only major variations between more and less marketized regions but also marked variations over time. Szelenyi and Kostello (1996) suggest that some of the futile debates over marketization and administrator rewards in China and

Eastern Europe can be resolved by paying attention to the rapid changes from year to year. Most of the debates about the consequences of marketization in China have been based on 1980s data. By the early 1990s, the pace of marketization had begun to accelerate. The 1991 dataset used in this chapter allows us to begin to note some of the changes that have occurred more recently, when market forces finally may have begun to significantly weaken administrator privileges. Besides noting the role of administrator privileges in general, we pay special attention to how the social capital provided by administrators in one's family helps males versus females.

#### DATA AND METHODS

We analyze data from the second wave of the China Health and Nutrition Survey (CHNS), fielded in 1991 in eight provinces: Liaoning, Jiangsu, Shandong, Henan, Hubei, Hunan, Guangxi, and Guizhou. Data were collected at community, household, and individual levels, providing us with information on 14,811 individuals in 3,629 households in 189 communities. Of the 189 communities, we are interested in the 127 villages, including regular and suburban villages that are closer to cities.<sup>3</sup> The individual, household, and community level material in the data set constitute the three types of explanatory variables that will be used in our analysis. The following paragraphs set forth our expectations regarding the effects of these variables.

##### *Individual Effects*

People come to the education and job world with a particular set of individual characteristics that favor or impede success. In education, they include the values and knowledge learned from educated parents. In jobs, they include prior education, age, gender, and marital status.

##### *Household Effects*

At the household level, a person has connections to parents and other family members with different occupational traits. Depending on the specific analysis, we will use these traits in three ways. First, in the school enrollment analysis we compare children with fathers of different occupations. Second, in our analysis of the determinants of occupational sector, connections are not limited to fathers; they include any other household member. Here we have two dummy variables for cadre (administrator) connection: village cadre and nonvillage cadre (more than likely township-level or higher). In case any significant effects from the cadre variables are caused by the effects of white-collar or professional/technical connections, we also control for any noncadre white-collar worker connection. Third, in the household in-

come analysis, cadre connections are measured as the total number of cadres in the household. Two variables are used, one for village and one for nonvillage cadres.<sup>4</sup>

##### *Community Effects*

Rich data on community characteristics available in the CHNS allow us to describe and assess economic context. We can compare the results of living in regular as opposed to suburban villages, which have more subcontracting work as well as providing relatively easy access to city jobs. The proportion of villagers in nonfarm work provides information about the nature of local labor demand. Average income in the community measures the amount of revenue available to governments and families. We also have information on whether the local economy is largely privatized or in the hands of local governments. We construct a three-way index of communities that distinguishes those that are (1) largely privatized, (2) largely corporatized (enterprises and services provided by local governments), and (3) largely agricultural, with few nonfarm employment opportunities. We construct this index by using community information on the number of private enterprises, the number of collective enterprises, the proportion of all enterprises that are collectively owned, and the number of community/welfare services that are provided by local government and funded by revenues from local collective enterprises, and by combining these indicators with aggregated individual-level information on the proportion of community labor working as entrepreneurs. For our school enrollment analysis we also use information on the distance between each community and the nearest lower-middle school.<sup>5</sup>

In short, in our analysis we emphasize how a combination of community, individual, and household traits shape one's life chances. In all of this analysis we will emphasize how this shaping is gender-differentiated, with women expected to benefit more from favorable background characteristics. We begin with an analysis of education and then proceed to examine jobs and income. This order is dictated by the belief that many of the advantages that a well-connected parent can provide are not directly, through access to better sources of current income, but indirectly, through providing a child with more education and better access to an initial job.

#### EDUCATION

Educational achievement is likely to be influenced by supply and demand factors. The supply side includes the number of nearby schools with ample teaching staff. Distant schools, particularly at the lower- and upper-middle school levels, may particularly disadvantage daughters. The demand side

includes whether parents and teenagers believe that education is of any use in the labor market; whether parents need their children to help at home; and whether many children are competing for scarce family resources, or only a few.

In the mid-1980s, village education suffered. As education funds were withdrawn from the countryside and shifted back to cities, fewer rural schools and teachers could be funded. The result was a massive retrenchment, with much consolidation of lower- and upper-middle school districts and decertification and early retirement of teachers who had been hastily recruited in the 1966–76 Cultural Revolution decade. Students had to walk longer distances to attend school and most likely also had to pay higher tuition and book fees than in the past (People's Republic of China 1995, 585 ff; Pepper 1990; Taylor 1988; Thøgersen 1990; N. Zhang 1992). On the demand side, the scholarly and anecdotal literature suggests that parents came to think that education was virtually worthless. With well-educated teachers, clerical workers, and others in the countryside making less than semi-literate private entrepreneurs, construction, and transport workers, parents and their children concluded that continuing in school was of little utility.<sup>6</sup>

Because of this combination of supply and demand factors, enrollment rates declined sharply from 1976 to 1985. Counter-intuitively, the falloff may have been sharper for sons than daughters. Sons had more income-earning possibilities outside of school, and therefore they and their parents were likely to count the opportunity costs of continued schooling as too high (Parish and Zhe 1995; Tang and Parish *In press*). The ironic result is that educational achievement levels for sons and daughters probably converged during the initial years of market reform.

Since 1985, though school consolidation has continued, the Ministry of Education has made a greater effort to prop up school enrollment rates. And, with the growth of more nonfarm jobs where at least a lower-middle education is a requirement, parents and children may once again see the utility of getting an education. Because of these forces, by the early 1990s when our current data set was collected, enrollment rates had returned to 1970s levels.

This analysis examines the kinds of forces that shape educational opportunity for sons and daughters. To provide a sense of the nature of rural education in 1991, we begin with a few descriptive details. First, enrollment is highly related to age. Though there are a few latecomers, most children enter school by age six or seven. Well over 90 percent of all children are in school through the primary school years. After the primary school years, enrollment begins to decline rapidly—down to about two-thirds for the lower-middle school ages and to about one-third for the upper-middle school years.<sup>7</sup> Through primary school, male and female enrollment is very

similar. Starting with lower-middle school, a gap of about five percentage points emerges. Though this gap is more modest than in some developing countries, it is likely a result of the influence of patriarchy in rural China.

In addition to age, school enrollment is also sensitive to level of community development. Youth aged 12–17 are on the cutting edge of declining school enrollment. Looking at this age group, in the least-developed communities with few people in nonfarm work, less than 60 percent of the youth are in school. In the most developed communities, in contrast, almost 80 percent are in school. This pattern varies by gender. In the least-developed communities, where nonagricultural employment is less than 10 percent, female enrollment lags male enrollment by about 10 percentage points. In the most developed communities, where nonagricultural employment is 60 percent or more, the situation is reversed, with female enrollment exceeding male enrollment by a few percentage points. It may be that female enrollment catches up with male enrollment in the most developed regions because high labor demand attracts young men into the labor force at an early age. Regardless of the exact cause, the pattern suggests that development helps young women more than young men.

Finally, school enrollment responds to school availability. Though distance to the nearest school has little effect on male enrollment, female enrollment is sensitive to that distance. When the nearest school is more than a kilometer away, female enrollment begins to decline. This is consistent with a story of increasing school consolidation (and hence greater distances) inhibiting female school enrollment after the start of the 1980s.

We attempt to put all these influences together in a single analysis of school enrollment among youth (table 8.1).<sup>8</sup> Because we are particularly interested in male/female differences, we explore gender interactions throughout. In the table, the coefficients for “female” show the additional impact, positive or negative, of being female as opposed to male. When “female” is interacted with other determinants of enrollment, carets (^) show the joint significance of main and interactive effects.

What do the results show? First, community characteristics matter more for young women than young men. Young women who live in the suburban villages and in villages with more nonfarm employment are more likely to remain in school than those in rural villages and villages with fewer nonfarm opportunities.<sup>9</sup> Young women who must travel longer distances to school are less likely to remain in school. More schools and more off-farm jobs have significant effects on women's life chances. They are largely irrelevant to men's. This fits the hypothesis that level of development matters more for females than for males.

Second, family background matters.<sup>10</sup> When parental education alone is examined, sons and daughters benefit from father's education. Daughters, but not sons, benefit from mother's education (Model 1). When parental

TABLE 8.1 Determinants of Rural School Enrollment, Population Age 12-17

	Model 1		Model 2	
	Coefficient	Adjusted <i>t</i>	Coefficient	Adjusted <i>t</i>
<b>Community characteristics</b>				
Nonfarm labor force (10s)	0.04	(1.5)	0.02	(0.7)
× female	0.05 <sup>^^</sup>	(1.5)	0.07 <sup>**^^</sup>	(1.9)
Distance to middle-school, km (log)	-0.01	(-0.2)	0.00	(0.0)
× female	-0.12 <sup>*^</sup>	(-1.9)	-0.14 <sup>**^^</sup>	(-2.2)
Suburb	0.04	(0.2)	-0.05	(-0.3)
× female	0.49	(1.4)	0.60 <sup>*</sup>	(1.7)
<b>Individual characteristics</b>				
Male	0.83 <sup>***</sup>	(3.5)	0.80 <sup>***</sup>	(3.2)
Years of education, father	0.04 <sup>*</sup>	(1.7)	0.02	(0.8)
× female	0.01 <sup>^^</sup>	(0.4)	0.02	(0.7)
Years of education, mother	0.00	(0.2)	0.00	(0.2)
× female	0.07 <sup>^^</sup>	(1.6)	0.06 <sup>^</sup>	(1.5)
<b>Occupation, father</b>				
village cadre			0.63 <sup>**</sup>	(2.4)
other white-collar			0.77 <sup>***</sup>	(2.6)
manual/service			0.40 <sup>**</sup>	(2.1)
entrepreneur			0.25	(1.0)
farmer (comparison group)			—	
<b>× female</b>				
village cadre			-0.84 <sup>**^^</sup>	(-2.4)
other white-collar			-0.19 <sup>^^</sup>	(-0.5)
manual/service			-0.37	(-1.3)
entrepreneur			-0.06	(-0.2)
farmer (comparison group)			—	

SOURCE: China Health and Nutrition Survey, 1991.

\**p* < .10 \*\**p* < .05 \*\*\**p* < .01 (two-tailed tests).

NOTES: Two variance-corrected probit models for sample-survey data (STATA) specifying the community as the primary sampling unit. Sample consists of youth age 12-17 with parent in household. The equations also include unshown indicator variables for ages 12-16 (comparison group age = 17) as well as dummy variables for living in a community with pronounced privatization, living in a community with pronounced corporatism, father with missing educational information, and father with missing occupational information.

The joint significance of standard and female interaction is indicated by the caret (^) next to the female interaction coefficients: <sup>^</sup>*p* < .10, <sup>^^</sup>*p* < .05 (two-tailed tests).

Cases = 1,152.

occupation is included (Model 2), the results are a bit more complex. Sons benefit from fathers having higher status occupations. Compared to the sons of other white-collar workers, the sons of village cadres are not uniquely advantaged. They are, nevertheless, distinctly advantaged when compared to the sons of ordinary farmers. The sons of entrepreneurs, who might well be pulled out of school to help in the family business, are only slightly advantaged, if at all. Thus, for sons, enrollment follows the status order, with sons of higher-status fathers being more likely to remain in school. Adding father's occupation attenuates the effects of father's education on the enrollment of sons. Daughters continue to be helped by their mother's education, but not by their father's education or occupational advantage. Daughters of other white-collar workers are somewhat more likely to remain enrolled, but still not so likely as the sons of other white-collar workers. Daughters of village cadres are actually disadvantaged in this sample.<sup>11</sup> Thus, the transmission of father's social capital to daughters is weaker than we expected.

## JOB

Our next question is: To what extent do community, individual, and family characteristics make a difference in the types of jobs that men and women secure? Of particular interest is the distinction between agricultural and nonagricultural work, and with respect to the latter, distinctions between state, collective, and private employment.

Again, we begin with some descriptive patterns. First, in rural China, virtually all able-bodied females are at work. Unlike in Japan or South Korea, there is no sharp decline in work once women get married and have children, nor any late-30s/early-40s return to informal sector work once their children mature. To the extent that there is a decline in these years, when women are in their late 20s and early 30s, the decline is slight. The prototypical M-shaped curve of labor force participation is here replaced by an inverted U. The downside of the U begins only in women's late 40s as their sons marry, bringing in daughters-in-law. When this happens, women begin to retire to help with grandchildren and family chores (see Judd 1994). But before this time, the vast majority of women, like the vast majority of men, are at work.

To be sure, much of this work is in agriculture. Fewer women than men share in prized nonfarm work opportunities. Unmarried women aged 16-23 participate in nonfarm work just about as much as men. But after this time, married women return home to raise children and take care of their new family. Because most rural women move from their home to their husband's village, they lose many of their initial job contacts when they marry (Parish, Shen, and Chang 1997). The result is that after marriage many fewer women are in nonfarm employment. This is particularly true of the

oldest women (and men), who came of age at a time when fewer nonfarm jobs were available. All of this illustrates not only the late spread of nonfarm jobs but also how married women fail to get the best jobs available to villagers.

In an era when most jobs remain highly localized, local employment environment has a great deal of influence on whether one is able to leave farming. Nonfarm employment opportunities for individuals rise steadily with the level of nonfarm employment in the larger community, though in a gender-differentiated manner. The effect of marriage on the chances of securing nonfarm work is also gender-specific. Married men are more likely than single men to work off the farm. In contrast, for women marriage dramatically reduces nonfarm employment in most places. Through modest levels of development (50% of community in nonfarm employment), married women participate very little in industrialization of the countryside. However, at much higher levels of development (60% or more of labor force in nonfarm work), even the married women begin to be pulled into nonfarm work opportunities. This staged development of labor force opportunities has been noted elsewhere around the world (Lim 1990).

Finally, despite many anecdotal accounts about the low value of education in the countryside, education does help in obtaining nonfarm jobs. Again, given their lower educational status, the boost provided by education is greater for women than for men. At the highest levels of education, women are about as likely as men to leave farming for nonfarm work.

Nonfarm jobs can be in work units owned by the state, collective, or private sector. State-owned work units run the gamut from factories to schools, hospitals, and administrative bureaus. Collectively owned units encompass a similar range, though there is a concentration in township and village-owned factories. In 1991, most of the privately owned endeavors were of a self-employed or family-business nature (*geti*) with most in family-run restaurants, stores, and workshops.

In the 1991 rural data, among prime working-age people, aged 20–59, work was distributed as shown in table 8.2. This fits the anecdotal accounts of a feminization of agriculture. Women are about 20 percentage points more likely to remain in farming while their brothers and husbands leave for nonfarming jobs. When women do leave farming jobs, they are more likely to go to nearby rural collective firms and less likely to make long commutes to state jobs or take up work in the private, largely self-employed sector (although see chap. 11).

A multivariate analysis helps summarize these simple descriptive results (table 8.3). In this analysis we are concerned with the type of nonfarm job secured. Because we are interested in the primary working ages—after a person has left school and before most people have retired—we restrict the analysis to people aged 20–59. The coefficients in the analysis are relative

TABLE 8.2 Percentage Rural Occupational Sector by Gender, Population Age 20–59

Ownership	Males	Females	Total
State	11.9	6.4	9.2
Collective	13.5	10.0	11.8
Private	19.3	6.8	13.2
Farming	55.3	76.9	65.8

SOURCE: China Health and Nutrition Survey, 1991.

risk ratios, showing how much one's chances of leaving farming are increased or decreased by a given background condition. A coefficient of 2.00 means one's chances are doubled, a coefficient of 1.00 means that one's chances are unchanged, and a coefficient of 0.50 means that one's chances are cut in half by a given background condition. We show gender interactions for each background condition, with carets to show when the main and interactive effects are jointly statistically significant.

Much as in the simple descriptive analysis, community characteristics are important. Generally speaking, with rising nonfarm employment, suburban location, and higher average incomes, nonfarm opportunities increase sharply. Community-level nonfarm employment is modeled with a quadratic term to test our hypothesis that female nonfarm employment rates rise more rapidly only after most men have already been employed off the farm. Though there are exceptions, this tendency is typically stronger for women than for men. Thus, location is very important, particularly for women.<sup>12</sup>

The importance of location can be seen with greater clarity in table 8.4. This table, derived from table 8.3, shows relative risks of employment in the state, collective, and private sectors by gender and level of nonfarm employment in the community and supports our hypothesis that nonfarm employment will benefit women more than men. That is, it appears a critical mass of nonfarm employment is necessary before women get pulled off the farm in significant numbers. However, since in 1991 it was relatively rare for rural areas in China to have nonfarm employment levels greater than 50 percent, we highlight the suggestive nature of these results.

Findings reported in table 8.4 also reflect a labor queue process: men move into the best locally available jobs first, and women follow only after vacancies emerge as the local demand for labor increases—for example, when men move into even more lucrative positions. The results show that in communities with a privatized character, men are the first to move into private-sector jobs as nonfarm employment rises. When employment outside agriculture reaches the 20 percent level, men are 37 percent more likely to be in the private-sector than on the farm, while women remain

TABLE 8.3 Determinants of Rural Occupational Sector (Relative Risk Ratios [RRR] from Multinomial Logit Analysis)

	State		Collective		Private	
	RRR	Adjusted z	RRR	Adjusted z	RRR	Adjusted z
<b>Individual characteristics</b>						
Female	0.11	(-0.9)	2.13	(0.3)	0.25	(-0.8)
Single	0.60*	(-1.9)	0.59**	(-2.3)	0.41***	(-4.8)
× female	8.69***^	(5.3)	5.73***^	(4.9)	4.06***^	(4.3)
Age	1.03***	(3.5)	1.00	(-0.0)	0.98***	(-3.4)
× female	0.95***	(-2.8)	0.98	(-1.0)	1.01^	(0.6)
Years of education	1.26***	(8.5)	1.16***	(6.0)	1.12***	(6.0)
× female	1.09*^	(1.7)	1.08*^	(2.0)	1.02^	(0.6)
<b>Family connections</b>						
Nonvillage cadre	9.04*	(1.9)	4.66	(1.3)	1.20	(0.1)
× female	0.41^	(-0.7)	0.67^	(-0.3)	0.60	(-0.3)
Village cadre	4.26***	(3.3)	3.12**	(2.6)	1.06	(0.1)
× female	0.32*^	(-1.8)	0.81^	(-0.4)	0.98	(-0.0)
Other white-collar	4.09***	(4.2)	2.69***	(2.9)	1.35	(0.8)
× female	1.56^	(1.0)	1.42^	(0.8)	1.35	(0.6)
<b>Community Characteristics</b>						
Mean income (log)	2.19***	(4.8)	6.49***	(10.8)	3.12***	(9.3)
× female	1.21^	(0.6)	0.77^	(-0.9)	0.95^	(-0.2)
% labor nonfarm (10s)	0.91	(-1.0)	0.95	(-0.6)	1.13*	(1.7)
× female	0.90	(-0.7)	0.86	(-1.1)	0.72***^	(-2.5)
(% labor nonfarm) <sup>2</sup>	1.04***	(3.9)	1.04***	(3.8)	1.00	(-0.2)
× female	1.02^	(1.3)	1.03*^	(1.7)	1.04***^	(2.5)
Suburb	3.01***	(6.3)	1.02	(0.1)	0.93	(-0.5)
× female	1.76*^	(1.8)	1.69*^	(1.9)	1.06	(0.2)
Privatized	0.98	(-0.1)	1.19	(0.9)	1.08	(0.5)
× female	1.02	(0.0)	0.92	(-0.3)	1.19	(0.7)
Corporatist	1.05	(0.2)	1.37	(1.5)	0.88	(-0.8)
× female	0.56	(-1.6)	0.71	(-1.0)	1.70*	(1.8)
Pseudo R <sup>2</sup>			0.26			
Cases			5,129			

SOURCE: CHINA HEALTH AND NUTRITION SURVEY, 1991.

\**p* < .10 \*\**p* < .05 \*\*\**p* < .01 (two-tailed tests).

NOTE: The coefficients are relative risk ratios from a single multinomial logit analysis. They show the relative risk of working in the state, collective, and private sectors compared to working in the agricultural sector. For example, roughly speaking, if one has a family member who works as a nonvillage cadre, one's chances of working in the state sector are nine times greater than one who lacks this connection.

The joint significance of standard and female interaction is indicated by the caret (^) next to the female interaction coefficients: *p* < .10 ^*p* < .05. The sample is age 20-59.

TABLE 8.4 Relative Probabilities of Occupational Sector by Gender and Level of Nonfarm Employment in Community (Relative Risk Ratios)

	Males			Females		
	State	Collective	Private	State	Collective	Private
<b>Privatized communities</b>						
5% nonfarm employment	0.95	1.17	1.15	0.92	1.00	1.16
10% nonfarm employment	0.93	1.17	1.22	0.87	0.95	1.08
20% nonfarm employment	0.96	1.25	1.37*	0.86	0.94	0.98
40% nonfarm employment	1.29	1.78*	1.72*	1.22	1.34	1.00
60% nonfarm employment	2.38*	3.43*	2.12*	2.82*	3.22*	1.35
80% nonfarm employment	6.05*	8.97*	6.05*	10.70*	12.94*	10.70*
<b>Corporatist communities</b>						
5% nonfarm employment	1.02	1.35	0.94	0.54*	0.89	1.36
10% nonfarm employment	0.99	1.35	1.00	0.52*	0.84	1.26
20% nonfarm employment	1.03	1.44	1.12	0.51	0.83	1.15
40% nonfarm employment	1.38	2.05*	1.40	0.72	1.19	1.17
60% nonfarm employment	2.56*	3.95*	1.73*	1.67	2.86*	1.58
80% nonfarm employment	6.49*	10.34*	2.09*	6.34*	11.49*	2.87*

SOURCE: China Health and Nutrition Survey, 1991.

\**p* < .05 (two-tailed test).

NOTE: The above relative risk ratios are point estimates calculated as linear combinations of main effects and interaction effects presented in table 8.3.

equally likely to work on the farm. Only at the upper extremes of nonfarm employment, when men shift first into the collective sector and then into the state sector, do women move out of agriculture. Likewise, in corporatist communities characterized by a strong collective sector, proceeds from which are invested by the local state into infrastructural development and other forms of local subsidy, men are the first to benefit from collective-sector jobs. These findings are consistent with our staged development hypothesis.

Returning to table 8.3, we see that individual characteristics are also important.<sup>13</sup> Consistent with our descriptive results, single women are greatly advantaged in nonfarm work relative to women who are or have been married. One thing that is new, however, is that the marriage handicap not only applies in the small collective and private sectors, where employers might be expected to use their discretion in hiring, but applies even more strongly in the state sector. For whatever reason—longer travel times, increased employer discretion over the most valuable jobs—even the state sector, once thought to be the bastion of equal opportunity for women, turns out to be just as unfavorable to married women as any other sector. For men, the situation is just the reverse. Marriage enhances men's chances of

working off the farm; or, men marry after securing off-farm jobs. As in the descriptive analysis, education increases one's chances of nonfarm work in all sectors, more so for women than for men. Thus, marriage and education matter, though in different ways for men and women.

Family connections also matter—though, again, in somewhat different ways for men and women. We begin with the coefficients in table 8.3, showing the effect of having other white-collar workers in the household. The presence of other white-collar workers increases one's chances of having a state or collective job. The increased chances are particularly pronounced for state enterprises, and considerable for collective firms as well. Several mechanisms may be at work, ranging from the benign (family members share similar interests, employers prefer to hire through family introductions, husband and wife met at work) to the not so benign (outright nepotism). Distinguishing the exact mechanism is difficult with these data.

However, we can note that administrative cadres, who should be in a position to influence appointments, are not particularly advantaged in doing so. Though larger in magnitude, the coefficients for a nonvillage cadre in the household are based on so few examples that they are statistically no different from the other white-collar coefficients. Even in the rural collective sector, where local officials should be able to wield more influence over appointments, local officials do no better than others in securing good jobs for their family members.<sup>14</sup> If there is a family connection advantage, it tends to be the standard white-collar advantage common almost everywhere in the world. Social capital through household connections appears to count for something, but the mechanisms of this advantage have little to do with characteristics specific to administered economies.

To the extent that there is any difference between administrators and other white-collar workers in the use of family connections, the data suggest it is in how those advantages are used on behalf of male and female family members. The differences are modest and largely insignificant in statistical terms. Nevertheless, to the extent that there is a pattern, it roughly parallels that found for education. Administrator social capital is expended more for males than for females. Other more average white-collar workers expend social capital for male and female kin. These tendencies are so modest and so unstable (given the small sample sizes) that we are reluctant to push inferences any further. They do present an interesting pattern, however, with administrators typically favoring sons over daughters.

#### INCOME

Finally, we move to the analysis of income. For the determinants of individual income we have a detailed set of results that we will summarize without showing the statistics that lie behind these generalizations. We have found

that in individual income returns, education is very important for getting the best jobs. However, once in the better jobs, education is of only modest importance in determining who gets higher and lower incomes. It is this modest return to education within any one job that is often noted in accounts about the extremely low return to education in China. Thus, the significance of education for parents and teenagers is that education provides access to a better job, not that it determines one's success once in that job.

Our primary analysis is not of individual income in jobs but of total household income (table 8.5). We constructed total household income by

TABLE 8.5 Determinants of Rural Household Income  
(OLS Regression Coefficients)

	Males		Females		Male/ Female Differences
Household labor characteristics					
Mean years of education	0.02*	(2.0)	0.00	(0.4)	
Sum labor by occupation					
white-collar	0.41**	(5.8)	0.55**	(7.0)	^
blue-collar	0.56**	(9.4)	0.32**	(7.5)	
entrepreneur	0.72**	(11.7)	0.38**	(5.1)	^
farmer	0.02	(0.5)	0.16**	(3.2)	
Cadre members					
Nonvillage		0.43**	(3.8)		
Village		0.36**	(4.5)		
Community characteristics					
Mean income (log)		0.79**	(19.0)		
Constant		-0.07	(-0.1)		
R <sup>2</sup>			0.45		
Cases			1,969		

SOURCE: China Health and Nutrition Survey, 1991.

\* $p < .05$  \*\* $p < .01$  (two-tailed tests).

NOTE: Coefficients and  $t$ -statistics are from a single variance-corrected linear regression model for sample-survey data (STATA) where the community is specified as the primary sampling unit. The model also includes unshown coefficients for age and age squared of laborers, none of which is significant.

The following coefficients are statistically different from the nonvillage cadre coefficient at  $p < .05$ : male entrepreneurs, female white-collar workers, and farmers. The following are statistically different from the village cadre coefficient: male blue-collar workers, male entrepreneurs, and farmers. Whether any difference between male labor and female labor for a given occupation with respect to the contribution made to household income is statistically significant is indicated by a caret: ^ $p < .05$ .

aggregating individual income components and adding them to household income components in the original questionnaire. Our computed median income of 2,249 *yuan* per household is similar to the median in larger State Statistical Bureau surveys for the same year, which suggests that we are close to the right figure for households (People's Republic of China 1992, 306). Within the household, we counted the mean (average) age and education level of everyone in the labor force. We also counted the number of male and female laborers by occupation—being careful not to double-count cadres, who were counted separately.<sup>15</sup>

The results suggest three observations. First, we show that nonfarm jobs are far more economically rewarding than farm jobs. Second, males generate more income than females—though much more so in blue-collar work and entrepreneurial activities than elsewhere. What lies behind these differential income returns is probably different experience levels. Many female blue-collar workers are in the labor force for only short periods of time. Once a woman marries, she leaves the nonfarm labor force, losing the additional income that might come from working many years in the same job. On average, in these data male blue-collar workers are five years older than their female counterparts. The result, of course, is to further convince parents that their sons are more valuable to them than their daughters or daughters-in-law. The third observation is that families with cadres have few, if any, advantages over households with nonfarm labor. Indeed, families get more income from having a male entrepreneur or male blue-collar worker than from having a cadre in the household.<sup>16</sup> Thus, in this 1991 data set, we find that cadre advantages have faded relative to several other nonfarm occupations.<sup>17</sup>

#### DISCUSSION AND CONCLUSION

Let us return to the three propositions with which we began. Not surprisingly, much of the first proposition that *patriarchy matters* was sustained. Though the educational difference has shrunk, leaving only about a five percentage point difference in enrollment through the middle teenage years, the gender gap still favors males. In occupations, the gender gap is particularly large for married women. Most married women retreat from nonfarm work and return to tend the house and work in the nearby farm fields. In total, including single and married women, women are 20 percentage points more likely to remain in agriculture, where they contribute much less to total family income. Under these conditions, family members may devalue women's labor, concluding, among other things, that women do not need the same level of education as men.

The other patriarchal pattern involves the use of social capital, particu-

larly by administrators. When it comes to staying in school and to finding a good job, scarce social capital is more often expended for men than for women. Patrilocal residence patterns explain part of this. A woman's initial social capital is not that of her husband's parents but that of her own parents. In the labor force analysis, however, the kin that we know about are not her own parents and siblings, but those of her husband, into whose home she has married. This fact alone could lower the apparent influence of household social capital. This is not all that is occurring, however. For when it comes to the daughter's education, we find no advantage gained from having a cadre father, whereas the benefit is clear for sons. Further, with regard to occupation, most unmarried daughters continue to live with their fathers, who could thus have some influence over their daughters' early careers. Moreover, the differential use of social capital applies much more to administrative cadres than to other white-collar workers. All this suggests that there is something about administrator use of social capital that is gender-differentiated in a patriarchal manner. In short, there are clear patriarchal patterns that exist to this day. This part of our first proposition about lingering patriarchal patterns is confirmed.

Our second proposition was that, whether for the international market or domestic markets, *economic development* sharply improves the position of women. Again, this proposition has been supported. Women who live in more developed communities (as indexed by more nonfarm work, suburban location, higher community income, more schools) appear to enjoy distinct advantages. The same is true of women whose parents were more educated. Under these conditions, women appear to make greater advances than men. Usually, they do not surpass men in education or work, but from a lower starting position in poorer communities and poorer families, they begin to catch up with men in education and work. Women's chances of lucrative nonfarm work take off only after total nonfarm employment has reached a critical threshold. This contrast between high and low nonfarm labor demands repeats a contrast found between Taiwan and South Korea. In the labor-intensive, low-unemployment economy of Taiwan, women have more opportunities than in the capital-intensive, high-unemployment economy of South Korea. The way in which work is organized also makes a difference. When industry remains largely in collective hands, men have an advantage in getting the better collectively owned jobs. The larger conclusion is that women are advantaged by more open economies where men have fewer opportunities to influence hiring decisions.

In the average locale, as development increases, women gain much more education. This gain is not only because there are more schools nearby, but also, it would seem, because of increased demand for educated labor in off-farm jobs. Under these conditions, teenage daughters remain in school.

Once educated, women are advantaged in the labor market. Indeed, at the highest education levels, they equal men in getting nonfarm jobs. At modest levels of development, most of the initial gains are captured by single women, who get nonfarm jobs just as often as single men. Unfortunately, at modest levels of development, most women still leave the labor force when they marry. This fits a staged pattern, where initial development does little to help married women. This is the early stage of development that caused so much concern in writings about Taiwan in the 1970s (e.g., Diamond 1975; Greenhalgh 1985; Kung 1983), and has caused similar consternation elsewhere in the world.

In contrast, at high levels of development, when nonfarm work in a community reaches 60 percent or more, even married women enter the nonfarm labor market. This is similar to what happened in Taiwan in the 1980s. In a more open labor market based on small enterprises and considerable self-employment, labor demand rises to such a level that employers cannot help but turn to married women for assistance. Thus, work has a queuing character. Men are first in the queue, followed by single women (Goldin 1990; Oppenheimer 1970; Reskin and Roos 1990). But at higher levels of development, employers turn to married women. This in turn leads parents and daughters to rethink their options.

Of course, conditions in these new work places are often substandard. Lee's (1995) report of conditions for female workers in a Hong Kong-owned enterprise in China's Shenzhen special economic zone can be repeated many times over. Nevertheless, for women (and men) with few economic alternatives, these types of work opportunities can still be appealing.

Our third proposition was that *social capital matters* for one's life chances. This proposition had two parts. The first was that social capital matters not only in the more commonplace advantages that one gains by growing up with parents who are more educated and in white-collar occupations, but also when one comes from a family with administrative connections. The second part of the proposition was that social capital advantages men more than women.

We were not able to confirm administrator-driven advantage. Men from administrator households are advantaged in education and in jobs, but this advantage is no greater than that secured by men from households with professional employees, clerical workers, and other types of white-collar occupations. What little administrator advantage is present seems to be more of the "garden variety" white-collar advantage common to most societies. We found little of the advantage expected if redistributive authority and the role of special connections remain partially intact. Moreover, the household income of administrators—local, village administrators and slightly higher-level administrators—failed to keep pace with that of either male

blue-collar workers or with new private entrepreneurs. The lag in relation to entrepreneurs was particularly severe.

What is one to make of these findings from the 1991 CHNS data set, which are so at variance with our findings from 1988 rural data (Parish and Michelson 1996)? Can three years have made such a striking difference in the fates of rural residents? One explanation is that the methods of analysis are not comparable. That is certainly true in part. In 1988, we were able to examine the more narrowly circumscribed 1.7 percent of the labor force who served as top local administrators, who clearly wielded authority in the countryside, and who therefore were in a better position to use connections to advantage their own family members. In the 1991 data set, we are forced to use a broader definition of local administrators (4.1% of the labor force). The 1991 results could be picking up more ordinary clerical workers who have little authority to wield on behalf of their family. This would depress the apparent value of administrative connections in the 1991 data relative to the 1988 data.

Conversely, we might argue that the 1991 results are more valid because they provide a more accurate estimate of entrepreneurial income. The 1988 data set is weak in this dimension. Additional sources of data will be needed to settle the issue.

Taken at face value, the apparent weakening of administrator influence between 1988 and 1991 is consistent with the Szelenyi and Kostello (1996) emphasis on timing. In 1988, *siying qiye* (privately owned enterprises with eight or more employees) were officially sanctioned. By late 1990, small enterprises were beginning to recover from the 1989 recession. Though still at an early stage, the development of the private sector was beginning to accelerate by 1991. Perhaps by then the countryside was moving into a more marketized phase, with blue-collar and entrepreneurial jobs becoming far more attractive than administrative work for villages, townships, and other types of local government.

Wank (1995) argues that this evolving political economy creates a system of increasing dual dependency, with entrepreneurs depending on administrators for favors, and administrators depending on entrepreneurs for income. It is unclear in Wank's account whether the administrators are pocketing the money that comes from entrepreneurs or whether they are simply relying on entrepreneurs for government revenue through regular taxes. Taxation dependency certainly did increase in the early 1990s. Counties could not pay their bills without the increasing flow of income from self-employed (*geti*) and private (*siying*) enterprises. If administrators were also dipping their own bucket into this new revenue stream, that "dip" is not reported in the figures here. Otherwise, administrators would not be receiving such modest incomes compared to other nonfarm workers.

Though our conclusion must be tentative, given the many "ifs" and "buts" about the data, we are ready to conclude that by the early 1990s rural China was moving in a more marketized direction, with most local administrators losing their past advantages to other types of white-collar workers. Moreover, though administrators still kept up with other white-collar workers, they were falling behind entrepreneurs. Their income was more secure than that of entrepreneurs, and above the village level, administrators continued to enjoy subsidized housing, health insurance, pensions, and other long-term benefits poorly recorded in our data. But with regard to take-home income, an administrative position was no longer the way to exceptional economic success. Thus, our conclusion concurs with Walder's (1995b) generalization that administrative authority is no longer what it used to be. These findings also call into question the easy assumption that the only way to get ahead is through connections (Yan 1995, 1996; M. M. Yang 1994; Wank 1995).

Regarding the issue of male and female benefit from social connections, though the findings are not entirely consistent and are often only modestly significant, they tend to support Lin and Bian's (1991) conclusion that social capital is differentially expended. Particularly among administrators, when it comes to helping household members stay in school or get a better job, males are helped in preference to females.

To conclude, we wish to emphasize that one must pay attention to place and timing. As with many developing countries, and particularly other reforming and post-socialist societies, conditions in rural China are changing rapidly. Generalizations true yesterday may not be true tomorrow. Women in the most developed communities are finally acquiring more education and job advantages. In the most developed communities these advantages are even expanding to benefit married women. Similarly, as marketization advances, administrators are losing many of their advantages to other types of white-collar workers and to entrepreneurs in the private sector. Generalizations that fail to pay attention to these rapid changes may quickly become out of date.

#### NOTES

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1. See Bell (1994) for a critique of all of the last three cited works.

2. For an elegant exploration of the historical staging of these trends in the

United States, see Goldin (1990). Also note Oppenheimer (1970). For evidence on the possible beginnings of some of these trends in rural China, see Judd (1994) and Parish, Zhe, and Li (1995).

3. We have used not the rural/urban code in the original data set but instead our own recoding (available on request) based on observed community and individual characteristics.

4. In constructing the cadre connection variables, care was taken to avoid double-counting. That is, in the occupational sector analysis, a person who is a cadre is not considered to have a cadre connection unless another member of the family is also a cadre. In the household income analysis, cadres are not double-counted as white-collar workers.

5. The variable for distance to lower-middle school is adjusted to correct for possible recording errors by replacing it with distance to upper-middle school if the upper-middle school is recorded as closer. The distance to upper-middle school is adjusted in the same way if greater than the distance to the nearest vocational (technical) upper-middle school.

6. For systematic studies of the extremely modest income returns to education, see Griffin and Zhao (1993), Peng Yusheng (1992), Parish and Zhe (1995).

7. In World Bank estimates, about half of secondary (lower- and upper-middle) school age youth were enrolled in school in 1991—which is close to the figure in these data (World Bank 1994, 216).

8. The analysis is based on bivariate probit models using STATA's variance-corrected multivariate estimation procedures for sample-survey data.

9. In this analysis, 134 girls and 131 boys belong to villages with at least 60 percent nonfarm employment.

10. One aspect of family background that should matter is the number of siblings competing for the same family resources (see Parish and Willis 1993). When introduced in a separate analysis, more siblings at home did reduce school enrollment. However, because this reduction was statistically nonsignificant, it was not included in our final equation.

11. The daughters of other fathers are little different from the daughters of farmers—once one subtracts the negative daughter coefficient from the initial positive coefficient one is mostly left with zero coefficients, suggesting that father's occupational advantage is neutral for daughters. For daughters, the net effect and significance of each father's occupation is as follows: village cadre  $-.15^{\wedge}$ , other white collar  $.13^{\wedge}$ , manual or service worker  $-.01$ , and entrepreneur  $.06$ , where  $^{\wedge}$  indicates that coefficients of this size would occur less than 5 times in a 100 by chance alone.

12. In this analysis, 645 women and 691 men belong to villages with at least 60 percent nonfarm employment.

13. Because here the gender coefficient serves largely as an anchor point for the many female interaction terms in the equation, we will not attempt to give the gender coefficient any substantive interpretation.

14. P. C. C. Huang (1990, 294) provides details on how local connections are more important for work in collectively run enterprises.

15. The numbers of people in different occupations is, of course, highly skewed

to the right, with only a small number of families having three or more people in each occupation. Nevertheless, truncating the number of people per occupation and rerunning the equation leads to similar results, which suggests that the potential problems of outliers distorting the results does not occur.

16. There are too few female cadres to treat them as a separate category.

17. One might argue that the fading of cadre advantage should have been more rapid in more developed and more privatized regions. We examined these kinds of interaction effects and found few stable patterns. This may be in part because of insufficient sample size and in part because of the increasing prosperity of most nonfarm work in comparison to cadre administrative work by the early 1990s.

## NINE

## The Perils of Assessing Trends in Gender Inequality in China

*Martin King Whyte*

Those who study China have an understandable desire to reach conclusions about the overall extent of gender equality and inequality in that society, and whether things have gotten better or worse over time, particularly as a result of China's reforms. All of the chapters in this section, and to some extent most of the other chapters in the volume, wrestle with these questions. I want to stress how difficult it is to reach such summary judgments. Very little of what I have to say will be new, and in fact many of the same comments have been made about stratification in general and in any society, not just regarding gender inequality in China. Many of the points I make will seem quite obvious. However, given the frequency with which analysts ignore these complexities and problems while pursuing summary evaluations, I think these points are worth reiterating.

### REALMS, INDICATORS, MEASURES, AND DATA

The first obvious point to stress is that if we want to assess the extent of gender inequality at one point in time, or judge the trend in such inequality over time, we need to decide what realms, dimensions, and indicators to consider. Obviously, there are multiple realms in which gender equality and inequality can be observed. One approach is to consider women's relative position in economics, politics, religion, cultural images, family life, and so forth. Even if we restrict our attention more narrowly, as in the present volume on gender and work experience, there are still multiple indicators and measures. At the outset we need to note that there are both objective and subjective dimensions of the relative position of women in the world of work. The subjective feelings women (and men) have about their jobs, their relations with colleagues and superiors, their chances for advancement,