

THE CHANGING NATURE OF FAMILY LABOUR IN RURAL AND URBAN BANGLADESH: IMPLICATIONS FOR FERTILITY TRANSITION

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Résumé — Cette étude fait un compte rendu d'un projet de recherche de 1978 au Bangladesh qui avait examiné les pré-conditions du déclin en fécondité en mesurant l'aspect le plus quantifiable de la valeur des enfants, leur travail dans le contexte familial. Toutes les activités entre 5 a.m. et 10 p.m. de tous les membres de famille âgés de plus de 5 ans ont été enregistrées par durée parmi 294 personnes dans 45 familles pendant une semaine, produisant presque 35,000 heures d'observation. Les aspects peu banaux du projet étaient sa confiance qu'en observation directe, sa distinction détaillée entre activités, l'examen des populations urbaines et rurales, et son identification des familles non seulement par les caractéristiques socio-économiques des parents mais aussi par leur penchant à éduquer leurs enfants. On a établi le rapport entre les changements dans la nature et la dimension des contributions du travail par âge et sexe et le déclin naissant de fécondité, et on a démontré les conditions qui permettent à la règle de Chayanov de demeurer valable.

Abstract — This paper reports on a 1978 research project in Bangladesh which examined the pre-conditions for fertility decline by measuring the most quantifiable aspect of children's value — their work within the family context. All activities between 5 a.m. and 10 p.m. for all family members over five years of age were recorded by duration for 294 persons in 45 families over one week, yielding almost 35,000 hours of observation. The unusual aspects of the work were its reliance solely on direct observation, its detailed distinction between activities, the examination of urban as well as rural populations and

its identification of families not only by the socioeconomic characteristics of parents but also by their propensity to educate their children. Changes in the nature and relative size of work inputs by age and sex are related to incipient fertility decline, and the conditions for "Chayanov's Rule" to hold true are established.

Key Words — Bangladesh, work inputs, value of children, fertility transition

Introduction

The debate over the nature of high-fertility societies has concentrated increasingly on the value of children.¹ One aspect of that value — perhaps in many societies the chief value — is the contribution that their work makes to the family economy. In such societies, characterized as they are by a significant amount of subsistence production, these contributions cannot be measured adequately by wages brought back to the household, but must be calculated from actual work inputs.

The measurement of work inputs is not easy, but is more suited to field research than such other aspects of child value as the present worth of the guarantee of help in a future crisis or in eventual old age. Accordingly, there has been a spate of labour input research. In the 1972-73 period, Benjamin White measured family work in Central Java (Nag *et al.*, 1977) and Robert Peet did so in Nepal (*ibid.*), while in Nigeria the Changing African Family Project listed all children's work by sex, age and schooling status (Okediji *et al.*, 1976; see also Caldwell, 1976b; Changing African Family, 1974). Projects of a similar kind were also undertaken in Bangladesh by Barkat-e-Khuda in 1976 (Khuda, 1978, 1980), Mead Cain in 1976-77 (Cain, 1977, 1978; Cain *et al.*, 1979) and A.K.M. Jalaluddin and the Caldwells (the project described here) in 1977. Work of this type has also been carried out in the Philippines (Boulier, 1977).

Apart from the work in Africa, the projects have had much in common. All, except for that described here, have been carried out entirely in rural areas of tropical Asia, almost entirely in padi rice-growing areas. All, except for the attempt here, have measured work inputs in terms of time, conceding the importance of work intensity and the quantity of the product, but finding measurement too difficult for joint work and for activities with no immediate visible product. All have conceded that

children's work can be understood in relative terms only if adults' work is also measured, and all have agreed that the primary analytical controls must be sex and age in societies where division along these lines is paramount in deciding the type of work undertaken and much else.

The major contrast in approach has been the method adopted for measuring the time spent on different types of work. White and Cain both paid periodic visits (every six and fifteen days, respectively) and collected information from each household on each person's activities by duration during the previous 24 hours, apparently employing check lists of possible work activities. Peet appears to have done something of the same kind, although there may have been an element of continuous observation as he describes his data collecting method in these words: "The observational technique was mostly employed for collecting the data although it was supplemented at times by interviews" (Nag *et al.*, 1977:125). A possible criticism of this methodology is that it is merely a version of the retrospective labour force survey subject to the same kind of recall lapse when remembering activities and assessing time periods (in societies where exact time usually is not measured) and the same kind of subjectivity when reporting on the activities of persons of different ages and sex. There is, in fact, striking evidence for the latter contention from both Nigeria and Bangladesh (Caldwell, 1976b; Khuda, 1978).

The study reported here had three major aims. The first was to experiment with the measurement of activity by continuous observation. The second was to extend the coverage of societies examined by including urban as well as rural populations (especially in view of the theoretical connection between this work and that on fertility transition, although there is as yet no urban-rural people's fertility differential in Bangladesh) (Republic of Bangladesh, 1975-1976:68-69). The third was to describe the context of such labour, partly with a view to understanding the conditions of change. In addition, although it will be reported separately, we wished to examine the mechanisms whereby persons were made to start working and to persist with work,² as well as to find out what happened to the product of the work. There was to be an attempt to measure the intensity of activity, and families were to be selected by socioeconomic class and by the efforts they made to educate their children. The work was to be done by continuous observation.

The rural area selected was a padi growing district near Manikganj, about 50 kilometres southwest of Dhaka. It had the advantage that Jalaluddin was already working in the area with a research team and that local people no longer seemed disturbed in any way by the presence of

these outsiders.³ The work was carried out in May and June 1977, just before the monsoon and during its early stages, a time when work activity is reported to be around the annual average (Cain *et al.*, 1979:20-22; Khuda, 1978:434). Households were listed according to landholdings: (1) large farmers (families with 3+ acres); (2) small farmers (3/4 to 1 1/2 acres); (3) marginal farmers or the landless (0-1/4 acres). The discontinuities in land size were intended to reinforce contrasts. In each case, the list was subdivided into families who had kept most of their children at school — at least through primary school — and those who had not. Thus there were six sub-lists, and four households were randomly selected from each.

The urban centre selected was the capital Dhaka, a city of a million inhabitants, and within it three specific areas were located: (1) two poorer areas, Babupura, a slum, and Shibbari, a somewhat better-off area; (2) a residential area of the traditional elite or merchant class; and (3) a residential area of the modern elite, educated with adult males working in the modern sector of the economy. The first two were subdivided according to children's education, but the third was not because all modern elite families attempt to educate their children. This gave five sub-lists, from each of which five families were selected. The survey was carried out in June-July during a period of rain, which inconvenienced survey workers but did not interrupt their observations or apparently affect the work patterns of those being observed.

This yielded a total of 23 rural families (there was one last-minute omission) with 159 members over five years of age, and 22 urban families (three omissions) with 135 members over five years old. We confined our examination of labour inputs to family members five years or more of age, but it can be argued that the activities of younger children should be examined (Cain included four-year-olds). After some preliminary investigation — which helped to accustom those being observed to the observers' presence without yielding data to be included in the final analysis — it was decided that a 17-hour observation period, 5 a.m. until 10 p.m. (three hours longer than Khuda's period of observation, 5:30 a.m. to 7:30 p.m.), would be necessary. We are convinced that the only way to distinguish all work, and to allow some activities to be changed during the analysis from one category to another, is to list all activities, that is, to insist on the observers accounting for all use of time during the 17-hour span. The observations were carried out for one week (seven days is a minimum because of the changed activity pattern on Fridays). This means that the analysis of all activities has been carried out for 119

hours per week for 294 persons, a total of 34,986 hours, of which 18,921 hours were recorded in the Manikganj area and 16,065 in Dhaka. During each hour of observation, 21 different aspects of the activity were recorded, yielding 120 computer cards per person for the week; thus the statistical part of this analysis is based upon 35,280 cards so generated. The workforce needed to follow and observe even six members of a household for 119 hours each day is considerable; we allocated two persons to a shift with alternating shifts so that each person worked a 59 1/2 hour week, but with provision to call in extra observers if the family split up to any considerable extent.

The survey recorded primary, secondary and tertiary activities without prior coding in an effort not to limit the collection of the full range of activities taking place. This resulted in the identification of 384 separate activities, which were categorized in this way only in the data processing stage, and all analysis ultimately rests on the recording of these activities. The division into primary, secondary and tertiary activities was based on an estimate of total activity: being placed in order by the proportion of time devoted during the hour when undertaken successively, and by the order of effort when undertaken in parallel. Most analysis in this first report refers to primary activities.

For each activity the following questions were answered: (1) Where was the activity located? (2) Who initiated the activity (or said that it should start)? (3) Who was ultimately the person who insisted that the activity should continue? (4) Who saw to it (in the sense of supervision) that the activity should continue? (5) Whose consent or agreement was necessary if the activity were to stop prematurely (or whose opinion counted in determining that the activity had actually been completed)? (6) What was done with the product of the activity? (7) Who were the main beneficiaries from the activity? (8) What would have been the immediate effect of not doing the activity? (9) What benefit did the person doing the activity get from doing it? (10) How was the person induced to do the activity? and (11) Was the product of the activity sold? Where possible, the questions were answered by observation, but clearly observers often had to make enquiries although they were trained to do so as casually and in as low a key as possible.

In spite of the large number of hours recorded, the real problem was the relatively small number of persons (and smaller number of families) involved, and the fear that one or more in each group would prove to be atypical. This fear was mitigated during the analysis when it was confirmed that the patterns of activity of each family within the same group

were remarkably similar and no family was found to be at marked variance with the pattern established for its group.

The Distribution of Activities

The central concern of the survey was the allocation of time by the Bangladeshan population, both urban and rural. The surveyed families were similar to the larger population in age and sex composition: in Manikganj 47 per cent of the individuals were under 15 years of age, while in Dhaka the proportion was 41 per cent (43 per cent in the 1974 census of Bangladesh), although males made up a somewhat higher proportion than in the community as a whole, being 56 per cent in Manikganj and 53 per cent in Dhaka (52 per cent in the 1974 census).

Table 1 presents the overall distribution of activities during the 119 hours of the week for the aggregate of individuals in Manikganj and Dhaka respectively, together with figures for the average hours spent on each by individuals of four types by age and sex. A possible criticism is that it would have been preferable to have measured the activities of each person during waking hours only rather than during the rigid daily 17-hour span from 5 a.m. until 10 p.m. We considered this approach and rejected it, partly because it did not allow strict comparability between all persons, but largely because sleeping during this period is as much an allocation of time, representing a choice on someone's part, as is relaxation. The real drawback is the omission of some activities carried out during the other seven hours, mostly prior to 5 a.m. when some women begin preparations for cooking and some men set out to tend the cattle. Continuous observation was sometimes resented even before 10 p.m. because of its disturbing effect; it was completely impossible prior to 5 a.m. Nevertheless, it should be noted that the activities recorded in Table 1, especially the hours of work, are, for this reason, slightly understated. The groupings, especially "work", are those employed in the subsequent analysis. The activities are further subdivided in the appendix. It should be noted that the table refers to primary activities, and not to such other parallel activities as child care.

Work has been defined fairly strictly. Some of the travelling and walking is necessitated by the location of work, but has been excluded here because even continuous observers find it difficult to decide what is really necessary and what is not. This is also largely true of the category "business contacts and conversations"; some are doubtless necessary, but

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TABLE 1. DISTRIBUTION OF AGGREGATE WEEKLY PRIMARY ACTIVITIES BY TIME, AND OF AVERAGE WEEKLY HOURS SPENT ON EACH ACTIVITY, BY SEX AND AGE FOR MANIKGANJ AND DHAKA

ACTIVITY	MANIKGANJ					DHAKA				
	%	Average hours per week				%	Average hours per week			
		Distribution of time on activity	(sex, age in years)				Distribution of time on activity	(sex, age in years)		
		m,<15	m,15+	f,<15	f,15+		m,<15	m,15+	f,<15	f,15+
A. WORK										
Unpaid work:										
outside subsistence	20.6	21.4	28.8	13.6	32.7	0.2	0.3	0.6	0.4	0.1
exchange labour/peonage	0.6	1.1	0.6	1.2	0.0	0.0	0.0	0.0	0.0	0.0
household activity	9.7	0.3	0.0	11.0	40.2	9.1	0.0	1.1	8.5	31.6
marketing, shopping	0.6	0.1	1.7	0.7	0.1	1.4	2.4	2.7	0.4	0.7
running errands	0.2	0.2	0.0	0.8	0.0	0.6	1.5	0.6	1.1	0.0
child care	1.4	0.6	0.4	3.2	2.8	1.9	0.1	0.5	2.9	5.2
supervising farmwork	0.4	0.1	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
supervising household	0.1	0.0	0.3	0.0	0.3	0.1	0.0	0.1	0.0	0.3
family helper (non-agri-cultural)	0.2	0.6	0.0	0.4	0.0	0.7	0.5	1.7	0.7	0.0
farmwork by servant	4.6	5.5	13.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Paid work:										
outside household	6.3	5.3	17.9	3.0	0.4	8.9	5.3	25.1	0.2	5.6
in other household	0.0	0.0	0.0	0.0	0.0	2.9	6.2	0.0	3.3	5.1
in own household	0.1	0.0	0.5	0.0	0.0	0.6	0.0	0.9	0.0	1.4
Total work: %	44.8	29.6	54.9	28.5	64.3	26.4	13.7	28.0	14.7	42.0
hours	53.3	35.2	65.3	33.9	76.5	31.4	16.3	33.3	17.5	50.0
B. EDUCATION										
Schooling (or training at educational institution)	2.0	4.5	0.4	4.9	0.0	3.8	7.3	2.4	10.7	0.3
Studying at home with teacher	0.1	0.4	0.1	0.0	0.0	1.7	4.6	0.2	5.2	0.0
Studying at home (homework etc.)	2.2	5.7	0.8	4.2	0.0	2.1	5.1	1.6	5.0	0.0
Total education: %	4.3	8.9	1.1	7.6	0.0	7.6	14.3	3.5	17.6	0.3
hours	5.1	10.6	1.3	9.1	0.0	9.0	17.0	4.2	20.9	0.3
C. OTHER ACTIVITIES NOT RELAXATION										
Business contacts, talking business	0.5	0.1	1.8	0.0	0.3	0.3	0.0	1.1	0.0	0.2
Travelling, walking	3.1	2.8	6.3	3.8	1.0	2.7	2.6	5.2	1.7	2.4
Grooming, hygiene, medical	3.5	3.7	3.0	6.0	4.3	2.7	3.0	2.8	2.9	4.1
Total other activities: %	7.1	5.5	9.3	8.2	4.7	5.7	4.7	7.6	3.9	5.6
hours	8.5	6.6	11.1	9.8	5.6	6.8	5.6	9.1	4.6	6.7
D. RELAXATION										
Resting	7.4	8.9	9.2	5.6	11.3	11.5	8.8	15.6	9.6	18.1
Playing, roaming	7.5	20.8	0.1	16.3	0.0	9.8	26.6	2.2	26.9	0.1
Eating, drinking	7.3	8.0	8.6	11.4	7.1	6.8	8.9	8.0	9.4	6.5
Praying, religious activity	0.8	0.7	1.8	0.2	0.8	1.7	0.5	3.7	1.3	1.7
Social contacts	4.6	4.1	6.2	6.5	4.8	9.8	6.1	17.6	7.1	12.3
Sleeping	12.5	19.2	10.1	19.5	11.9	15.7	20.5	17.8	19.9	17.5
Smoking, betel chewing	0.1	0.1	0.2	0.0	0.1	0.0	0.0	0.1	0.0	0.0
Reading, radio, cinema	0.3	0.2	0.9	0.1	0.0	1.5	1.5	2.8	0.7	1.8
Sport	0.0	0.0	0.0	0.0	0.0	0.4	1.3	0.5	0.0	0.0
Total relaxation: %	40.5	52.1	31.2	50.1	30.3	57.2	62.4	57.4	62.9	48.7
hours	48.2	62.0	37.1	59.6	36.0	68.1	74.2	68.3	74.9	58.0
E. NOT ELSEWHERE INCLUDED										
%	3.3	3.9	3.5	5.6	0.7	3.1	4.9	3.5	0.9	3.4
hours	3.9	4.6	4.2	6.6	0.9	3.7	5.9	4.1	1.1	4.0
TOTAL: %	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
hours	119	119	119	119	119	119	119	119	119	119
N : persons	159	41	48	34	36	135	29	42	26	36
person hours	18,921	4,879	5,712	4,046	4,284	16,065	3,451	4,998	3,094	4,522

most appear to be an accepted technique whereby older males withdraw for periods from arduous work so as to leave it to their sons.

The research left no doubt that the rural population works far longer hours than do city residents. Urban men, boys and girls work approximately half as many hours per week as do their rural counterparts, although in the case of women the reduction is only one-third. In Manikganj, women averaged 11-hour working days and men almost 10-hour days for the whole seven days of the week.

Children, even those 7-8 years of age (see Tables 3 and 4), make a considerable contribution to total family work: both rural boys and girls average half the hours that adults do; in urban areas, boys also work half the hours that men do, although girls, while working just as long as their brothers, average little more than one-third of adult female work. Indeed, if school work is regarded as work (or as an equivalent of work deferring to the future the return to the family), then the proportion by which children's input of time falls short of that of adults is not one-half but only one-third amongst the rural population and amongst urban females, while there is no short-fall at all among urban males.

The classification here makes no distinction between so-called "productive" work in the fields and domestic work in the household. This distinction is usually more misleading than helpful and is probably a carry-over from traditional ways of segregating male and female activities while down-playing the latter. The distinction is not one between subsistence and market production; in rural areas, most of the food grown is consumed by the household. Here "farming" includes all activities connected with food from the preparation of land and sowing to weeding, harvesting, threshing, winnowing and grinding (the last two carried out by women and girls in the courtyard and inside the house, respectively, for reasons of purdah). Indeed, the distinction between such domestic tasks as grinding spices and cooking and those of the field is of little importance in terms of skill or effort, and all are a necessary part of the life of the subsistence farming household. Such largely subsistence work makes up five-sixths of the work of the rural family and over half that of the urban family. It is not the work inside the house that has a markedly easy component but that outside, where a significant amount of time is spent watching the cattle or waiting to scare birds. All farming and domestic work is shown as such; the classification "family helper" has been used almost entirely to describe children helping in urban family businesses. In traditional society, child care was not a major drain on mothers; indeed, their labour was urgently needed for more

onerous tasks, and young children were more often than not looked after by their sisters. Only in the city, and then largely among the better-off, does child care begin to become a specifically maternal duty.

Children's work is mainly in the same general areas as that of their parents — subsistence field and household production. They do, however, specialize in running errands. Because of the seclusion of their mothers, they — together with their fathers — also play an important role in shopping or marketing, girls in rural areas and boys in the larger, more anonymous city.

Paid work, other than the sale of some of the food produced, takes up six to eight per cent of the time of rural households and 12.9 per cent of that of urban households (or 15 and 45 per cent, respectively, of all work). It is an error to think of this being largely the monopoly of adult males; in rural areas children can earn quite a lot from work for other farmers (perhaps one-quarter of all household earnings), while in the town women can earn wages both for domestic work outside their own homes and in other tasks (adult males bring in little more than half of all Dhaka earnings).

In the balance of the time, urban populations rest more, sleep longer (over half-an-hour more a day), enjoy far more social life in the form of visiting, have more contact with the media and even spend more time on religious activities. In a way, they could be said to lead a fuller life. The rest of the paper will concentrate on the hours of work and will ignore the time inputs into other activities.

Different Types of Society

A major aim of the research design was to distinguish between various types of family according to resources, background and tendency to educate their children, so as to avoid a simple urban-rural dichotomy. This distinction is made in Table 2 for those activities described as "work" in Table 1.

Table 2 clearly demonstrates the relationship between resources and labour inputs. Where families have sufficient land, most members — even in rich households — work long hours. Among the rural landless, work is much more difficult to find, but, in families of illiterates with no orientation towards schooling children, a marginal existence is maintained by putting in long hours as paid labourers or on relatively unrewarding subsistence tasks. Among the urban poor, adult females work

TABLE 2. AVERAGE WEEKLY WORKING HOURS BY SOCIOECONOMIC CLASS, PATTERN OF CHILD EDUCATION, SEX AND AGE FOR MANIKGANJ AND DHAKA

(a) Average hours spent per person on work by socio-economic class

Area	Socio-economic class	N	Average hours of work		
			males	females	persons
Manikganj	Large farmers	80	51.8	53.3	52.4
	Small farmers	44	56.7	71.5	62.4
	Landless and marginal farmers	35	41.4	46.0	43.9
Dhaka	Poor	51	29.0	37.0	33.1
	Traditional elite	63	23.1	37.4	29.7
	Modern elite	21	28.9	31.2	29.9

(b) Average hours spent per person on work by socio-economic class, pattern of child education, sex and age

Area	Socio-economic class	Whether children usually sent to school	Males		Females	
			Under 15		Under 15	
			15	15+	15	15+
Manikganj	Large farmers	Yes	27	60	21	83
		No	38	68	29	73
	Small farmers	Yes	45	67	41	77
		No	43	79	78	79
	Landless and marginal farmers	Yes	17	36	19	82
		No	34	67	39	60
Dhaka	Poor	Yes	10	41	14	59
		No	11	34	28	64
	Traditional elite	Yes	12	30	16	46
		No	26	20	31	38
	Modern elite	Yes	21	45	-a 47	

Note: ^a Less than 300 hours reported.

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almost rural hours, employing the only resources base that exists, the dwelling, to eke out subsistence by substituting as much as possible labour for expenditure. Among the traditional elite, work inputs vary greatly; where their dwelling is also a family business, most members work around the clock; where the family derives its income from farms or urban businesses, often largely the possessions of relatives, male working hours may be few. This is usually not so among the modern elite, where the men find sufficient work outside the home and the women have homes sufficiently large to occupy them.

Some other generalizations are possible. Females work longer hours than males, especially among both rural and urban poor. In families which do not practise schooling, children usually do somewhat more than half as much work as adults; in families that do practise schooling, children do less than half.

Some work is desperately inefficient or is disguised unemployment. This is particularly the case with much of the subsistence cultivation undertaken by near-landless labourers on the tiny plots of land around their houses and by the time spent (nearly one-third of all activity) by the urban poor at shops or markets or in almost indefinable activities in the neighbourhood or outside it.

Internal Family Structure

When labour input is related to the internal structure of the family, popular beliefs can be shown to be true. The households contained nine unmarried daughters and seven daughters-in-law of comparable ages, all over 15 years of age and not attending school. The former averaged 59 hours of work per week and the latter 70 hours. Their mothers/mothers-in-law averaged 68 hours (although some of this was in directing work) and their grandmothers/grandmothers-in-law 35 hours. Among males over 15 years and not at school, fathers worked 55 hours, sons 51 hours, and live-in farm labourers 90 hours.

Age and Schooling

For many purposes the simple age dichotomies we have been employing are inadequate. This problem is overcome in Table 3, although, in order to do so, the division by socioeconomic class has been sacrificed,

TABLE 3. AVERAGE WORK HOURS PER WEEK FOR CHILDREN
5-14 YEARS OF AGE BY AREA, SEX AND CURRENT
SCHOOLING STATUS FOR MANIKGANJ AND DHAKA^a

Area:	MANIKGANJ				DHAKA			
Sex:	males		females		males		females	
Current schooling status ^b :	S	NS	S	NS	S	NS	S	NS
<u>Age</u>								
5-6	-	15	-	7	-	-	-	1
7-8	36	35	13	16	1	-	1	-
9-10	30	-	14	34	15	-	8	-
11-12	21	60	-	77	5	-	9	-
13-14	-	84	-	65	3	73	27	64

Notes: ^a Categories omitted with fewer than 357 recorded hours of activity.

^b S = currently at school; NS = not currently at school.

although not the rural-urban division. Because of the age groups involved, a further division by schooling status was necessary in Table 4.

Both tables exhibit fluctuations arising not from the number of hours of work measured but from the relatively small number of persons contributing in some of the divisions of those hours. Nevertheless, the following pattern emerges.

Up to 12 years of age, children's work is very much less in urban areas than rural areas, measured not only in terms of hours but as a proportion of adult working hours. At older ages, the differential narrows. The differential at younger ages arises partly from the fact that nearly all children go to school in Dhaka, while this is not the case in Manikganj, but also from the fact that school children do very much less work in Dhaka. School attendance there is equated with dependence, and parents

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TABLE 4. AVERAGE WORK HOURS PER WEEK FOR BROAD AGE CATEGORIES BY AREA, SEX AND PRESENT AND PAST SCHOOLING STATUS FOR MANIKGANJ AND DHAKA^a

Area:	MANIKGANJ						DHAKA					
Sex:	males			females			males			females		
Schooling status ^b :	S	PS	NS	S	PS	NS	S	PS	NS	S	PS	NS
Age												
5-9	30	-	20	14	-	25	0	4	6	1	0	7
10-14	29	34	69	33	72	56	8	57	66	17	59	48
15+	57	72		79	76		33	32		42	54	

Notes: ^a Categories omitted with fewer than 357 recorded hours of activity.

^b S = currently at school; PS = past schooling; NS = never at school.

believe success at school must not be jeopardized by too many competing other tasks.

Table 4 provides some support for the observation that boys of 10 to 14 who have been to school, but who are no longer there (and who are often seeking employment of the type thought suited to their education), do considerably less work than those who have not been to school: one-third less in Dhaka and only half as much in Manikganj. Clearly this is not true among girls.

There is some evidence that rural children work considerably longer hours when the family has cattle and other animals than when it has not because boys take cows and girls take sheep and goats to pasture (see appendix), but the analysis is rendered complicated by the fact that some rural families that send their children to school are less likely to own cattle, and by the small number involved.

Working Together

In traditional agrarian society, the control over non-household activities is largely achieved by doing together what can be efficiently done in this way (usually it would be an uneconomic use of labour to have cattle tended by more than a single person). How the system operates is brought out by Table 5.

With whom one works can be fully understood only in terms of where one works. Male work was seen to be very largely done outside the house, and between two-thirds and four-fifths is in company. In traditional society, that company is not randomly selected but is subject to a high degree of sexual segregation, both in farming and in traditional elite urban occupations such as that of merchants.

The picture is more complex in the case of non-traditional urban occupations, such as those pursued not only by the modern elite but by the urban poor. They tend to come into working contact that is not very close with a range of people of both sexes; these have been classified here as "sex not specific". A better measure of close working company can be obtained by comparing the "same sex" with the "mixed sex" categories. When this is done for males, the very different situation of the modern elite is brought out.

The situation among women is different and rather surprising. Even in traditional society, women spend the majority of their time working alone. This is partly an artifact of the way space is usually regarded; men working 30 metres apart in a field are regarded by both themselves and those who recorded their activities as working together, while one woman working in the house's main room and another in the courtyard, often only a few metres apart, are regarded as working alone even if one has told the other what work to do. Nor is their work as segregated as that of males because their young sons often help with the work to a much greater extent than do daughters follow their fathers into the fields. When working outside the home, modern elite women are even less likely to be sexually segregated than their husbands, for two main reasons. Firstly, because they are a minority and hence it is more difficult to isolate them in a single sex grouping, and secondly, because they are much more likely to have a male directing them than are males to have a female director.

These single sex groupings of workers are unlikely to be egalitarian; in fact, one of their purposes is to ensure direction of the young by the old. Over half of all groupings of working male relatives are composed

TABLE 5. PERCENTAGE OF TIME SPENT IN EACH TYPE OF COMPANY DURING WORKING PERIOD

COMPANY	MALES						FEMALES					
	marginal farmers & landless			traditional elite			marginal farmers & landless			traditional elite		
	farmers	urban poor	modern elite	farmers	urban poor	modern elite	farmers	urban poor	modern elite	farmers	urban poor	modern elite
Family - same sex	25	10	3	15	1	1	26	12	18	10	9	9
- mixed sex	3	4	4	2	2	2	9	11	12	11	21	21
Relatives and non-relatives												
- same sex	5	0	0	0	0	0	0	0	0	0	0	0
- mixed sex	0	0	0	0	0	0	0	0	0	0	0	0
Non-relatives												
- same sex	42	55	18	42	4	4	1	4	2	4	1	1
- mixed sex	0	0	0	1	15	15	0	0	4	2	16	16
- sex not specified	3	0	45	20	44	44	0	2	4	3	13	13
Alone	22	31	30	20	34	34	64	71	60	70	40	40
Total	100	100	100	100	100	100	100	100	100	100	100	100
% of time working with other persons												
- same sex	92	94	30	71	8	8	72	55	50	47	17	17
- mixed sex	4	6	6	4	26	26	25	38	40	43	61	61
- sex not specified	4	0	64	25	66	66	3	7	10	10	22	22
Total	100	100	100	100	100	100	100	100	100	100	100	100

These single sex groupings of workers are unlikely to be egalitarian; in fact, one of their purposes is to ensure direction of the young by the old. Over half of all groupings of working male relatives are composed only of a father and sons, and much of the balance is composed of a senior brother in charge of his younger brothers. Hardly any of the two-person partnerships recorded consisted of a husband and wife working as a pair.

Age and Sex Work Differentials by Activity

A key element in family production is the allocation of different types of work to males and females and to the young and old. An examination of this is begun in Table 6, which, by focusing on the Manikganj data, presents a picture of rural activity.

Persons under 15 years of age constitute only 41 per cent of all persons and 31 per cent of all labour (assuming that the labour of 5-to 14-year-olds represents practically all child labour); hence proportional work inputs by children higher than the latter figure mean that the task tends to be children's work.

Nine-tenths of all work inputs go into padi production, the handling of grass, hay and straw (most of which could have been amalgamated with the work around cattle), cattle, jute (which looms larger at other times of the year) and housework. Padi dominates everything else. Housework occupies only 43 per cent of female time and, even then, has ingredients that are not wholly separable from the activities that take place outside the house.

Even a table devoted to major categories clearly demonstrates a marked degree of sex and age specialization. Padi production is predominantly a female area, while jute farming is overwhelmingly male. The difference is partly explained by the fact that the various operations involved in padi farming can be separated out into those which must be done away from the house, and those which can be done inside the house, in the courtyard or close by, and hence which are suited in a purdah society to female employment. Some tasks are reserved for adult males: the marketing of produce (except the selling of milk to neighbouring houses which is done by women), business affairs, the direction of labour and the care of machinery. Tasks which contribute to power and authority, such as the handling of property and money, are kept very much in the hands of men. Housework is done by females and so is the

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TABLE 6. TOTAL WEEKLY HOURS AND PERCENTAGE DISTRIBUTION OF RURAL WORK BY INDUSTRY, SEX AND AGE FOR MANIKGANJA^a

Industry	Percentage of total work hours devoted to industry	Hours of work				Percentage distribution			
		males		females		males		females	
		under 15	15+	under 15	15+	under 15	15+	under 15	15+
RICE (padi)	40.6	901	1586	245	716	26	46	7	21
GRASS, HAY AND STRAW	9.2	198	174	152	258	25	22	20	33
(grass)	-	(134)	(73)	(7)	(1)	(63)	(34)	(3)	(0)
(hay)	-	(62)	(73)	(83)	(196)	(15)	(18)	(20)	(47)
(straw)	-	(2)	(28)	(62)	(61)	(1)	(18)	(41)	(40)
JUTE	3.6	78	213	7	4	26	71	2	1
VEGETABLES	0.7	11	20	13	19	17	32	21	30
COW DUNG	1.3	2	0	52	59	2	0	46	52
TREES	0.2	5	8	1	3	29	47	6	18
MANPOWER DIRECTION	1.0	5	65	0	9	6	83	0	11
(farm)	-	(5)	(52)	(0)	(0)	(9)	(91)	(0)	(0)
(household)	-	(0)	(13)	(0)	(9)	(0)	(59)	(0)	(41)
MACHINERY OPERATION	0.1	0	12	0	0	0	100	0	0
AGRICULTURE MISCELLANEOUS	2.4	57	115	18	13	28	57	9	6
CATTLE ^b	5.3	87	180	59	125	19	40	13	28
(pasturing)	-	(32)	(6)	(2)	(4)	(73)	(14)	(4)	(9)
(watering and shed cleaning)	-	(0)	(2)	(39)	(69)	(0)	(2)	(35)	(63)
(other)	-	(55)	(172)	(18)	(52)	(19)	(58)	(6)	(17)
DUCKS AND CHICKENS	0.4	9	2	20	2	27	6	61	6
(ducks)	-	(9)	(0)	(19)	(2)	(30)	(0)	(63)	(7)
(chickens)	-	(0)	(2)	(1)	(0)	(0)	(33)	(67)	(0)
GOATS AND SHEEP	0.1	5	0	3	2	50	0	30	20
(goats)	-	(3)	(0)	(1)	(1)	(60)	(0)	(20)	(20)
(sheep)	-	(2)	(0)	(2)	(1)	(40)	(0)	(40)	(20)
CRAFT AND MAINTENANCE	2.6	13	140	6	55	6	65	3	26
(net and mat making)	-	(0)	(1)	(5)	(34)	(0)	(2)	(13)	(85)
(other)	-	(13)	(139)	(1)	(21)	(7)	(80)	(1)	(12)
CARRYING AND ERRANDS	1.8	13	1	72	64	8	1	48	43
(bringing fuel)	-	(3)	(0)	(3)	(14)	(15)	(0)	(15)	(70)
(bringing water)	-	(0)	(0)	(39)	(47)	(0)	(0)	(45)	(55)
(errands)	-	(8)	(1)	(21)	(2)	(25)	(3)	(66)	(6)
(carrying meals to field)	-	(2)	(0)	(9)	(1)	(17)	(0)	(75)	(8)
MARKETING PRODUCE	1.4	4	103	2	13	3	84	2	11
(selling to nearby houses)	-	(0)	(2)	(0)	(13)	(0)	(13)	(0)	(87)
(selling in bazaar)	-	(4)	(101)	(2)	(0)	(4)	(94)	(2)	(0)
BUSINESS JOURNEYS AND TALKS	5.6	0	473	0	0	0	100	0	0
OTHER OUTSIDE ACTIVITIES	0.9	16	50	1	6	22	69	1	8
HOUSEWORK ^c	19.9	14	2	364	1308	1	0	22	77
CHILD CARE	2.9	22	17	113	93	9	7	46	38
TOTALS	100.0	1440	3161	1128	2749	17	37	13	33

Notes: ^a Total hours worked = 8478.

^b Ploughing included under rice; milk sales included under marketing.

^c Excludes much work done within the house such as grinding rice included under rice.

handling of cow dung for fuel; little girls mostly care for ducks and exclusively collect snails for their food. Child care is mostly a female area, but, in contrast to the position in towns, is more the concern of sisters than mothers. In any case, it consumes a far smaller proportion of total time — even in high-fertility societies — than theorists in industrialized countries often assume. Work with cattle is more evenly distributed, but tasks are segregated: boys pasture animals, females keep the sheds clean and provide drinking water, boys bring in the grass, women take charge of its conversion to hay, and men finally feed it to the animals.

Everyone has a clear idea of who should do what. The appendix shows the actual areas of specialization identified in the survey. These were somewhat more blurred than society's views on specialization, but this occurs largely because of demographic deficiencies — a family has no daughters and hence boys have to do girls' work (although the problem will also be solved by women doing girls' work), a family has only one adult male but three adult females and hence the sex division in adult work becomes blurred (but not in the areas beyond dispute such as ploughing or business, although a widow may be forced to do some business). Large families, formed either from high fertility or joint residence, reduce some of these problems. Clearly some of the problems are family life cycle ones, and, in terms of the necessity for bending work segregation rules, most families are well aware that there are critical periods which usually pass with time.

The Urban Picture

The urban picture, while contrasting strikingly in some ways with the rural one, is, nevertheless, clearly drawn from the same society. Table 7 analyzes the data from Dhaka. The detailed data should be treated with much greater care than those for the rural population because the heterogeneity of urban work opportunities means that an exact picture could be obtained only with a much larger number of families than it was possible to examine. Nevertheless, the broad division of activities and their subdivision by sex and age is probably reasonably reliable.

Rural-type work, which includes home gardening and work on farms outside the city, forms only five per cent of all work activities in Dhaka. In no sense, then, is the metropolis an agro-city. Outside the house, the subsistence sector has virtually disappeared, consisting of less than three per cent of all activities in carrying and errands. Over 50 per cent of all

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TABLE 7. TOTAL WEEKLY HOURS AND PERCENTAGE DISTRIBUTION OF URBAN WORK BY INDUSTRY, SEX AND AGE FOR DHAKA^a

Industry	Percentage of total work hours devoted to industry	Hours of work				Percentage distribution			
		males		females		males		females	
		under 15	15+	under 15	15+	under 15	15+	under 15	15+
ALL RURAL-TYPE WORK ^b	4.7	14	146	29	10	7	74	14	5
(from Dhaka)	-	(14)	(61)	(29)	(10)	(12)	(54)	(25)	(9)
(on longer absences)	-	(0)	(85)	(0)	(0)	(0)	(100)	(0)	(0)
SALARY AND WAGE EMPLOYMENT	36.3	354	677	92	410	23	44	6	27
(professional)	-	(0)	(48)	(0)	(91)	(0)	(35)	(0)	(65)
(white collar)	-	(0)	(271)	(0)	(0)	(0)	(100)	(0)	(0)
(shop assistant)	-	(76)	(69)	(0)	(0)	(52)	(48)	(0)	(0)
(mechanic)	-	(49)	(31)	(0)	(0)	(61)	(39)	(0)	(0)
(watchman)	-	(0)	(60)	(0)	(0)	(0)	(100)	(0)	(0)
(construction)	-	(0)	(10)	(0)	(0)	(0)	(100)	(0)	(0)
(entertainment)	-	(0)	(71)	(0)	(0)	(0)	(100)	(0)	(0)
(domestic service)	-	(229)	(0)	(92)	(319)	(36)	(0)	(14)	(50)
(bearing)	-	(0)	(117)	(0)	(0)	(0)	(100)	(0)	(0)
INFORMAL SECTOR	6.2	17	139	29	77	6	53	11	30
(dressmaking and tailoring)	-	(1)	(11)	(19)	(31)	(2)	(18)	(30)	(50)
(rickshaw work)	-	(0)	(119)	(0)	(0)	(0)	(100)	(0)	(0)
(petty trading)	-	(16)	(9)	(10)	(46)	(20)	(11)	(12)	(57)
SHOPKEEPING	10.2	6	424	0	0	1	99	0	0
BUSINESS ADMINISTRATION	0.6	0	24	0	0	0	100	0	0
FINANCIAL TRANSACTIONS	0.3	0	13	0	2	0	87	0	13
BUSINESS JOURNEYS AND TALK	0.1	1	3	0	0	25	75	0	0
CARRYING AND ERRANDS	2.6	49	28	32	0	45	26	29	0
HOUSEWORK	32.6	0	27	189	1162	0	2	14	84
CHILD CARE	6.4	1	15	74	181	0	6	27	67
TOTALS	100.0	442	1496	445	1842	10	35	11	44

Notes: ^a Total hours worked = 4225.

^b Agriculture, animal husbandry etc.

activity is money-earning, two-thirds for a salary or a wage, one-fifth in the more formal trading sector (for example, shopkeeping) and one-eighth in the informal sector.

Sex and age differentials persist. Men dominate white collar occupations, as well as work in construction, entertainment, rickshaw work and acting as watchmen. Child care is very largely a female concern. Children undertake three-quarters of all errands. Adults are responsible for all financial transactions and professional work. In the families we studied,

women predominated in the professional sector because of schoolteaching (but doubtless there was a problem here of small numbers).

Urban-Rural Contrasts

A comparison of Tables 6 and 7 shows not only the difference between the rural and urban economies and ways of life, but also suggests changes that transform societies undergoing urbanization and that impinge on rural-urban migrant families. As we have previously seen, urban populations work shorter hours than rural ones (although the marked contrast is with the rural farming population and not with the landless). The drop in the number of hours worked is least for women and greatest for children, although the decline for the latter is partly necessitated by the extra volume of school work. In the country, the two-fifths of the population under 15 years of age contribute almost one-third of all work hours, while in the town the proportion drops to one-fifth.

Profound changes take place in work inputs within the house. Housework accounts for 20 per cent of rural work but 33 per cent of urban work, a difference entirely explained by the diminution of outside work opportunities. Males continue to do a negligible proportion of housework, but the balance changes by age with even more of the work falling to mothers while daughters halve their inputs. A somewhat similar pattern emerges with child care. The most typical rural pattern is care by siblings, mostly by sisters. In the town, 84 per cent is undertaken by adult women, almost entirely mothers, arising because of separation from rural relatives, a higher proportion of older children going to school and a greater urban cultural emphasis on maternal care. The pattern assumed in industrialized countries to be natural, namely child care impinging on parents and especially on mothers, is in fact a development which occurs only with the growth of non-farming urban populations. Clearly, there are demographic implications in the sense of the increasing cost to parents of high fertility.

In Dhaka, where there is so little return from rural-type activities, nearly everything has to be bought, and money-earning activities are of great importance. It is a myth that these activities are dominated by male breadwinners. In fact, adult males account for only 44 per cent of salary- and wage-earning hours of activity (although just over half of income), while wives and sons — almost equally important — account for over

half. The major reason is that married women and boys can do paid domestic work — a type of employment which makes up over two-fifths of all urban work. The inability of unmarried girls to do such work outside the home means that they are a much less important source of household income than are their brothers. Boys can also use their ability to work outside the house to work in shops and in skilled trades. Clearly, too, these patterns have profound implications for the family's structure. In a farming community, the male household head can claim ownership of the land and control of the money received from that product which is sold. In the town, he must use his patriarchal position to ensure that earnings other than his own — often the majority of earnings — come into a common coffer which he controls. Such a system is inherently unstable.

There remains a question as to what urban households do with their excess time — that which would be spent by farmers in extra work. They remain completely idle because of a greater extent of sickness — 81 per cent of such time-use being by males; they pray, read the Koran and go to mosque — more by adult males; they play and roam — 91 per cent by children and not at all by females over 15 years of age; they play organized sport — males only; they eat more leisurely; and they spend more time visiting — the majority of the time with relatives.

Testing "Chayanov's Rule"

A.V. Chayanov, collecting and analyzing data from Russian peasant families in the first quarter of this century, concluded that during the life cycle of the family, the work inputs of its members changed so that the older members could do less work as the children grew up (Chayanov, 1966:78). Thus, eventually at least, there was a major value in having children. Half a century later, after the work had been translated from Russian (and German) into English, the American anthropologist Marshall Sahlins employed data from Chayanov and others to enunciate "Chayanov's Rule" (although it might more appropriately be termed "Sahlins's Rule"): "Intensity of labour in a system of domestic production for use varies inversely with the relative working capacity of the producing unit" (Sahlins, 1974:91).

The Bangladesh data enable us to test the Rule, and this has been done in Table 8. The Dhaka urban elite families are omitted from the analysis because of their similar sizes, all being in the 5-9 persons range. Once again, the results are dominated by the differences in access to

TABLE 8. AVERAGE WEEKLY HOURS OF WORK PER PERSON
BY FAMILY SIZE FOR MANIKGANJ AND DHAKA

	Family size	Manikganj		Dhaka	
		Farmers	Marginal farmers & landless	Urban poor	Traditional elite
(a) <u>Both sexes</u>	Under 5	80	40	41	-
	5-9	57	45	31	31
	10+	52	-	-	28
(b) <u>Males only</u>	Under 5	75	33	33	-
	5-9	51	43	28	26
	10+	56	-	-	20
(c) <u>Females only</u>	Under 5	95	44	47	-
	5-9	65	47	34	38
	10+	47	-	-	37
(d) <u>Both sexes: families with a majority of members under 20 years of age</u>	Under 5	-	-	31	-
	5-9	57	45	29	30
	10+	56	-	-	26
(e) <u>Both sexes: families with a majority of members over 20 years of age</u>	Under 5	80	40	45	-
	5-9	53	-	33	33
	10+	45	-	-	32

	Family size	Manikganj		Dhaka	
		Farmers		Urban poor	Traditional elite
(f) <u>Both sexes, under 20 only: families with a majority of members under 20 years of age</u>	Under 5	-		20	-
	5-9	45		14	17
	10+	44		-	14
(g) <u>Both sexes, over 20 only: families with a majority of members under 20 years of age</u>	Under 5	-		64	-
	5-9	74		58	50
	10+	70		-	43
(h) <u>Both sexes, under 20 only: families with a majority of members over 20 years of age</u>	Under 5	70		26	-
	5-9	44		16	36
	10+	11		-	29
(i) <u>Both sexes, over 20 only: families with a majority of members over 20 years of age</u>	Under 5	90		65	-
	5-9	59		43	30
	10+	66		-	33

resources. Farming families of optimal size for yielding minimum work inputs per person still exhibit longer working hours than families of other types with the least favourable structure for reducing work inputs.

When the examination is confined to farming families — the only kinds studied by Chayanov — the rule is found to hold good when total persons are examined regardless of sex or age. The families really unable to cope with an economic system based on occupational division by sex and age are the very small ones, under five persons, where the hours worked are huge. Thereafter, there is a modest decline in work hours

with family size. This could be regarded as a variant of Sahlins's Chayanov Slope (that is, the decline in per capita work-inputs as the ratio of adults to children in the household increases), which is rather based on the change in working hours as the producer-consumer ratio increases (a concept somewhat at odds with this paper because of our demonstration that nearly all members of the household are both producers and consumers) (Sahlins, 1974:108-121).

This slope holds good also amongst both the poor and the traditional elite of Dhaka. Its failure to do so amongst the marginal farmers and landless population of Manikganj may be evidence that lack of land in a rural society really means that there is no common work to share at all — as a productive unit the family has really been fractionated.

When the analysis is divided by sex — something which Sahlins did not do — it can be seen that, among farming families, the slope with increasing family size is much steeper among females than males. Indeed, once the very small families are excluded, it may not exist among the latter. Once again, the reason is the ability of small families, or of families temporarily rendered small by being caught in an inefficient phase of the family life cycle, to hire labour or to seek the assistance of male relatives to share female work in the house or its courtyard, although this cannot be easily done (at least in a purdah society, but probably to some extent in most peasant societies). However, the analysis by sex does not produce the same change in the other groups. Indeed, among the traditional urban elite, where the family businesses mainly absorb male labour, the slope with changing family size is more apparent among males than females.

A closer approach to the Chayanov-Sahlins method of analysis can be obtained by dividing families by age. The rather high threshold of 20 years has been chosen in order to remove all aberrations caused by schooling. Families with a majority under 20 years of age still tend to have children of all ages stretching from birth to close to adulthood, while those with a majority over 20 have some of these children (or children-in-law) as young adults.

This analysis — confirming Chayanov — shows that the advantages accruing to a large family from the steep slope largely arise from the older large family. Thus the benefits from high fertility accrue increasingly as the family grows older, and especially to those families who manage to have their sons marry late or who keep married children in the household.

Sections *f* to *i* of Table 8 carry this analysis further still and examine the situation separately for the younger and older members of such families (omitting the marginal farmers and landless because of insufficient numbers). This analysis confirms that the major gains with family size accrue in the large families which have a majority of adults and that the gains are particularly great for the younger members of such families. In fact, once families of 5-9 are achieved there are no further gains for the older generation. The relatively large gains made by children of predominantly adult families may seem at first anomalous in terms of Chayanov's argument, but are in fact in keeping with the claim of higher per capita well-being. Indeed, we gained the impression that the concept of child dependency is most developed in such families.

There are, in fact, other ways of examining the impact of the balance of age and sex within the family, and these are shown in Table 9. The ratio method, applied to all persons, is that employed by Sahlins for estimating the Chayanov Slope.

Part *a* of this table shows that the Chayanov Slope is found among farming families for all ratios below 2, not only for both sexes combined but also for males and females taken separately. The steepness of the slope is remarkably similar to those calculated by Sahlins (by quite different methods whereby the intensity of labour is found from the relationship between the numbers of cultivated acres and persons in the family) for peasant populations in Russia of the early years of the century and in Zambia and West Irian (Indonesia) during the 1950s (Sahlins, 1974:102-123).

No slopes have previously been calculated separately by sex or for non-farming populations. The calculation by sex for the farming population confirms that the slope for females is almost twice as steep as that for males. The calculation for other groups confirms that labour inputs are very high in the smallest households, but reveals that the slope is not found among the landless, the urban poor or the traditional urban elite. It is related closely to having land resources. There is, however, one exception, which, at first sight, is a most surprising one — the modern elite with a slope as pronounced as that of the peasantry. The reason is their homogeneity of family size, 5-9 persons, its relative smallness, its relative self-containedness in that other relatives are often not called on to help with the work, the fact that parents, rather than siblings, undertake most of the child care, and the fact that children do relatively little work. For these reasons, households of this type are very sensitive to life cycle changes, with parents, especially mothers, doing a disproportionate

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TABLE 9. AVERAGE WEEKLY HOURS OF WORK BY AGE-SEX BALANCE OF FAMILY, FOR MANIKGANJ AND DHAKA

(a) By age balance		ratio of persons 15+ years of age to persons under 15 years of age ^a							
		less than 0.5	0.5-0.99	1.0-1.49	1.5-1.99	2.0+			
(i) <u>persons</u>									
Manikganj:	farmers	-	84	73	67	71			
	marginal farmers and landless	84	44	64	-	(81)			
Dhaka :	poor	-	56	64	-	43			
	traditional elite	-	-	37	49	32			
	modern elite	-	60	47	-	38			
(ii) <u>males</u>									
Manikganj:	farmers	0	77	64	63	67			
	marginal farmers and landless	(77)	48	50	-	-			
Dhaka :	poor	-	37	63	-	38			
	traditional elite	-	-	22	65	21			
	modern elite	-	(50)	44	-	(42)			
(iii) <u>females</u>									
Manikganj:	farmers	-	97	83	71	80			
	marginal farmers and landless	(91)	40	78	-	(81)			
Dhaka :	poor	-	74	66	-	50			
	traditional elite	-	-	47	43	48			
	modern elite	-	(69)	49	-	(34)			
(b) By age and sex balance									
		<u>Manikganj</u>				<u>Dhaka</u>			
		<u>males</u>		<u>females</u>		<u>males</u>		<u>females</u>	
<u>Family structure</u>		<u>under 15</u>	<u>15+</u>	<u>under 15</u>	<u>15+</u>	<u>under 15</u>	<u>15+</u>	<u>under 15</u>	<u>15+</u>
(i)	no male under 15	-	57	32	60	-	26	16	53
	one male under 15	24	65	23	73	14	44	14	51
	2+ males under 15	37	67	43	81	18	28	36	46
(ii)	no female under 15	43	57	-	77	15	23	-	45
	one female under 15	32	72	46	87	20	43	23	56
	2+ females under 15	29	63	30	71	14	39	15	50
(iii)	no male 15+	12	-	18	81	-	-	-	-
	one male 15+	37	59	38	70	19	39	14	56
	2+ males 15+	36	67	32	80	12	29	28	43
(iv)	no females 15+	-	-	-	-	-	-	-	-
	one female 15+	37	70	42	78	8	47	15	64
	2+ females 15+	33	62	20	76	21	28	22	43

Note: ^a Bracketed data are from a single family.

amount of work when their children are young and subsequently sharing the burden as the youngsters grow up.

Part *b* of Table 9 allows an examination of extreme cases. The absence of males under 15 in a household has little impact, but the absence of girls means, in rural areas, that boys work harder. Households in Bangladesh, in order to exist, usually have at least one

adult of each sex. Where there is only one adult male, adult women work harder. Where there is only one adult female, she works harder, and, in rural areas, so do the adult males.

One can summarize by concluding that, within limits, both household size and age-sex balance — usually a product of the stage in the life cycle — have an impact on work inputs. Members of very small households, fewer than five persons, work unusually hard everywhere. Beyond that threshold, numbers are important only amongst the farming population where work inputs decline with family size, although enlargement beyond 10 members achieves no extra reduction. This decline is steeper amongst males than females. As the ratio of adults to children increases, work loads, especially for adults (and particularly for females), decline among farming populations and the modern urban elite. The latter have contrived a family which places peculiar pressures on the parents, especially the mothers, while the children are young.

The Pattern Revealed and its Interpretation

In terms of work inputs, the broad canvas painted by the other studies (Cain, 1977, 1978; Khuda, 1978; Nag *et al.*, 1977) was confirmed: in rural areas adult men work over 60 hours a week and adult women over 70 hours, while children's labour rises steadily from about five years of age reaching — among all females and those males who have not been to school — adult levels by 14 or 15 years of age. Even in a purdah society, women work somewhat longer hours than men, and less than half their labour is in housework.

This study has demonstrated that work inputs are largely those determined by the resource base: the longest hours of labour are put in by rural families with access to land and by urban families with their own businesses. It has also shown that urban work inputs are very different from rural ones. Urban children and adult males work only half the hours that their rural counterparts do. Nevertheless, two points should be noted. First, adult females in the city work two-thirds as much as do their rural sisters. Whilst in rural areas adult females (that is, females over 15 years of age) generate almost 40 per cent of all family working hours, they are responsible for almost 50 per cent in urban areas. Furthermore, among the poor and the modern elite, they earn a larger fraction of all money income (as measured by hours worked for income, rather than the somewhat anomalous responses to the question about

who earns the income) than is directly ascribed to them in rural areas. Second, the ratio of boys' work to that of men is much the same in the city as in the country, although that of girls to women is distinctly lower.

The control of activity — and all it means in terms of advantages secured by age and sex — is achieved largely by the mechanics of the work situation. In rural areas, males work almost entirely outside the house and in the company of other males. The majority of the working groups consist of a father and sons, the former being responsible for almost all work direction. Similarly the females work in the house, its courtyard and adjacent areas, the working group being a mother plus daughters and daughters-in-law. Nearly all direction is provided by the mother. That these working relations should be of this kind is the point made by most popular morality and culture and also by religion. Indeed, so effective is this framework that many of the tasks need no specific direction; they are done from "a sense of duty, or a desire for order", and also from "fear of punishment or scolding", and achieve as their reward "family affection and praise".

This pattern is largely also the pattern of the urban traditional elite. Indeed, the merchant and artisan classes have always taken the farming family as their model. Often they are able to organize their households closer to the pattern of the ideal model, for, whilst the crises of farm life frequently blur sex and age segregation in jobs, even taking the wife into the field, the successful town merchant can run his business with the male members of his family and confine his womenfolk to domestic tasks. The ideal pattern is probably also the aim of the rural landless and the urban poor, but the continuing problems of securing an existence mean even more frequent crises than are found in farming families, together in the case of the urban poor with the ecological differences imposed by the city, so that age and sex segregation is not as thoroughly achieved and there is probably a corresponding reduction in the patriarchal control of activity. Only among the modern elite — with longer durations of Western-oriented education and with many men and some women working in the modern sector while their children go to school — does the aspiration for the traditional age and sex segregation of activity and its control begin to break down. For the first time, men undertake activities within the house and accept some female direction in the process.

In terms of this transition, a very important point should be made with regard to child care. It is often assumed that transition from a more traditional to a more modern lifestyle means a reduction in time spent on child care. In fact, the time that can be devoted to this work by rural

mothers is small, for the demands of agriculture and of the treatment of harvested crops must come first. Babies and small children have a surprisingly small amount of time devoted to them, and much of the care that does take place comes from their sisters — often girls from 6 to 10 years of age. The better-off women of the towns, both the modern and traditional elites, see as one of the proven signs that they can make choices about their use of time the fact that they can devote more time to their younger children and become indisputably the most important child minder. (This point is also discussed in Galal el Din, 1977.)

Schooling is taken more seriously in Dhaka for a number of reasons. There is no farm to fall back upon, and urban wages and working conditions are largely determined by the educational level achieved. There is not such a demand by the household for labour, and therefore children's time can be more easily spared; in fact the extra time is best used for an investment in the future partly because that time now exists and partly because children would otherwise be subject to the temptations of the city and might well "get into trouble." Finally, as child care becomes more specifically the province of the mother, and more generally of both parents, a philosophy of bringing up the child and planning for its future becomes further developed.

Work is not evenly distributed but follows lines of preference and privilege. Women who have married into a household do more work than their unmarried sisters-in-law of the same age. As men grow older and their sons grow up, they spend more time discussing business with old acquaintances of the same age, while their sons go to the field. Live-in rural labourers and town servants work huge hours, often 80 to 90 per week. Adolescent males who have left school are unlikely to be made to do as much work as males of the same age who have never gone to school, partly on the grounds that they are waiting for the right kind of job. This is especially true in Manikganj, partly because the educated are fewer there than in the city and accordingly are still seen as being unusual and even precious, and partly because agricultural work is seen as being the antithesis to what education stands for and to what it prepares one for, in a sense that does not apply to town jobs or even help within the home.

Implications for Demographic Transition

Finally, some of the evidence has implications for demographic transition, or at least for fertility transition. Rural households with fewer

than five members are, in terms of minimizing work inputs, structurally unsound given traditional segregation by sex and age. In view of the fact that household size may be eroded by both child mortality and departures as they grow up, this fact tends to support the rationality of at least moderately high fertility. Beyond this threshold, higher fertility is of more benefit to women than men, and even then, is achieved only after a lag time as daughters grow older or sons bring wives home. For the poor in town or for rural-urban migrants, children are of value in that they may bring home a considerable proportion of the family income. However, there are also urban forces which may ultimately militate against high fertility. In the town, parents — especially mothers — are more responsible for child care. Amongst the modern elite — and increasingly among other related groups — the father, for the first time, spends a significant proportion of his waking hours in the house and so feels the impact of a large number of children.

Farming populations may begin to control fertility if there is less assurance that young adult sons will work for the parents' interests rather than their own and if the arrival of daughters-in-law into the household is less frequent or their work less intensive or their presence more troublesome. The catalysts tending to produce this situation are greater schooling, an increased likelihood of the rural-urban migration of the young, and greater family nuclearization of young married couples and their children either residentially or even just emotionally through the strengthening of the conjugal emotional bond. The latter changes are largely promoted by increases in educational levels and by contact with urban ways of life.

The situation among the traditional elite is only a variation of this picture. The major force for change is the increasing likelihood that sons will be educated to the point where that process not only imposes an immediate burden but clearly threatens the future in that it is more probable that they will join the modern elite both occupationally and in the nature of their conjugal families.

Both the rural and urban poor have less to gain from very high fertility than do farmers. However, lower levels of education and a conservatism arising from great insecurity are unlikely to lead to fertility control unless an efficient family planning programme makes it easy to practice control. Rural women from the labouring classes, because they work for wages on others' land, have some of the same autonomy that urban elite women seek by working for a salary, and hence may play a more

significant role than economically better-off rural women in family planning acceptance.

Finally, the urban elite are exposed to such pressures from the time the children are young — in the form of parental child care and problems with regard to the mother continuing to work, plus the investment that must be made in children's education and the small income-earning capacity of the young elite children — that substantial fertility decline among this group is only a matter of time.

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Footnotes

1. Caldwell (1976a, 1981). For a description of the Value of Children project of the East-West Population Institute, see Arnold (1975). Debates on the values of children's contributions to the family economy go back to the nineteenth century, but have been renewed in the 1960s. See, on Africa, Caldwell (1967) and, on Asia, Mamdani (1972).
2. During the analysis stage of this work, the study by Cain *et al.* (1979) became available. This deals with certain aspects of work control, although much of the evidence does not come from the survey schedule itself. The full data on activity control from our survey are available in Caldwell *et al.*, 1980.
3. Jalaluddin's research in the area for a year in 1978 and again in 1981-82 provided valuable information for interpreting the rural findings. It was also the presence of his research team which so familiarized the population with ongoing research activities that there was no Hawthorne effect.

References

- Arnold, F. 1975. *The Value of Children: A Cross-National Survey. Volume 1. Introduction and Comparative Analysis.* Honolulu, Hawaii: East-West Population Institute.

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- Boulter, B.L. 1977. Children and household economic activity in Laguna, Philippines. *Journal of Philippine Development* 8, 4(2):195-222.
- Cain, M.T. 1977. The economic activities of children in a village in Bangladesh. *Population and Development Review* 3:201-227.
- _____. 1978. The household life cycle and economic mobility in rural Bangladesh. *Population and Development Review* 4:421-438.
- _____, S.R. Khanam and S. Nahar. 1979. Class, Patriarchy and the Structure of Women's Work in Rural Bangladesh. Center for Policy Studies Working Papers, 43. New York: Population Council.
- Caldwell, J.C. 1967. Fertility attitudes in three economically contrasting rural regions of Ghana. *Economic Development and Cultural Change* 15:217-238.
- _____. 1976a. Toward a restatement of demographic transition theory. *Population and Development Review* 2:321-366.
- _____. 1976b. Fertility and the household economy in Nigeria. *Journal of Comparative Family Studies* 7:193-253.
- _____. 1981. The mechanisms of demographic change in historical perspective. *Population Studies* 35:5-27.
- _____, A.K.M. Jalaluddin, P. Caldwell and W. Cosford. 1980. The Control of Activity in Bangladesh. Working Paper in Demography no. 12. Department of Demography, Australian National University, Canberra, Australia.
- Changing African Family Project, Nigerian Segment. 1974. Project 2, the Value of Children: Work Performed by Children in the Western and Lagos States of Nigeria. Department of Demography, Australian National University, Canberra, Australia.
- Chayanov, A.V. 1966. On the Theory of Non-capitalist Economic Systems. In D. Thorner, B. Kerblay and R.E.F. Smith (eds.), *The Theory of Peasant Economy*. Homewood, Illinois: The American Economic Association, Richard Irwin.
- Galal el Din, M. el A. 1977. The Rationality of High Fertility in Urban Sudan. In J.C. Caldwell (ed.), *The Persistence of High Fertility*. Changing African Family Series: Family and Fertility Change, Monograph 1. Canberra: Department of Demography, Australian National University, pp. 633-649.
- Khuda, B. 1978. Labour Utilization in a Village Economy of Bangladesh. Ph.D. thesis. Department of Demography, Australian National University, Canberra, Australia.
- _____. 1980. Time Allocation among People in Rural Bangladesh. DERAP Publication no. 101. Bergen, Norway: The Charles Michelsen Institute.

Mamdani, M. 1972. *The Myth of Population Control: Family, Caste and Class in an Indian Village*. New York: Monthly Review Press.

Nag, M., R.C. Peet and B. White. 1977. Economic Value of Children in Two Peasant Societies. In *International Union for the Scientific Study of Population, International Population Conference: Mexico, 1977. Volume 1*. Liege, Belgium. pp. 123-139.

Okediji, F.O., J.C. Caldwell, P. Caldwell and H. Ware. 1976. The changing African family project: A report with special reference to the Nigerian segment. *Studies in Family Planning* 7(5):126-136.

People's Republic of Bangladesh, Ministry of Health and Population Control, Population Control and Family Planning Division. 1975-1976. *World Fertility Survey: Bangladesh Fertility Survey, 1975-1976. First Report*.

Sahlins, M. 1974. *Stone Age Economics*. London, England: Tavistock.

APPENDIX. WORK SPECIALIZATION BY AGE AND SEX, RURAL AREAS

Major activity	MALES			FEMALES			PERSONS (i.e. no sex differentiation)		
	<15	15+	no age differentiation	<15	15+	no age differentiation	<15	15+	no age differentiation
CULTIVATION	Gathering seeds	Sowing seeds Lifting seedlings Planting out seedlings Tying in bundles Trampling Distributing shares of padi Inspecting padi field	Weeding Reaping Bringing from fields Irrigating padi	Cleaning seeds Husking Gathering husks Carrying husks to shed Sweeping Moistening	Winnowing Husking Drying in sun Raking Storing Cleaning husking shed		Scaring birds and chickens	Carrying padi	Ricking Threshing Weighing
GRASS	Cutting grass Gathering grass	Tying bundles of grass	Bringing grass from field Washing grass						
HAY	Bringing hay inside again			Gathering hay Drying hay in sun	Spreading hay				Threshing hay Ricking hay
STRAW		Bringing straw to house			Gathering straw Drying straw Raking straw Ricking straw				

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APPENDIX. WORK SPECIALIZATION BY AGE AND SEX, RURAL AREAS (continued)

Major activity	MALES			FEMALES			PERSONS (i.e. no sex differentiation)		
	<15	15+	no age differentiation	<15	15+	no age differentiation	<15	15+	no age differentiation
JUTE	Gathering jute Carrying jute	Sorting jute Reaping jute	Weeding jute Binding jute	Cleaning jute Moistening jute					
VEGETABLE GROWING	Cutting til	Fixing plants to trellis Weighing mustard Muskling mustard	Weeding	Picking	Threshing pulses Drying mustard seed/spice	Planting Muskling pulses Cleaning pulses			
COW DUNG				Gathering Making cow dung cakes Moving cow dung cakes around	Preparing fuel Spreading fertilizer Digging hole for fertilizer	Drying Bringing fertilizer to field			
TREES	Carrying bamboo	Cutting bamboo Planting trees			Carrying bamboo leaves				
AGRICULTURAL MANPOWER		Hiring labour Replacing labour Supervising labour Instructing labour Loading labourers Paying labourers							
AGRICULTURAL MACHINERY		Supervising tube well Working machinery Cleaning machinery							
AGRICULTURE GENERAL		Field work Harrowing Harvesting Sweeping matches	Weeding Ploughing Digging	Collecting berries Drying chaff Scaring crows	Carrying soil	Cutting stems			
COWS	Supervising Tethering Grooming cows Feeding calf	Feeding cows Taking cow from shed Putting cows in cow shed Looking for lost cows	Bathing cows			Carrying water to cows Sweeping cow shed Cleaning feeding trough		Milking cows	

APPENDIX. WORK SPECIALIZATION BY AGE AND SEX,
RURAL AREAS

Major activity	MALES			FEMALES			PERSONS (i.e. no sex differentiation)		
	<15	15+	no age differentiation	<15	15+	no age differentiation	<15	15+	no age differentiation
POULTRY		Killing poultry		Feeding Bathing ducks Catching ducks Gathering food for ducks Collecting snails for ducks					
GOATS AND SHEEP	Looking after goats Taking goats to field Feeding sheep			Taking sheep to grass Tethering sheep in shed					
CRAFT AND MAINTENANCE		Building granary Making door Making fence Making mats Making tools Other maintenance							
OTHER RURAL WORK	Bringing fuel	Selling milk in bazaar Selling other food in bazaar Selling cattle at market Fishing Preparing tobacco Looking after boats			Bringing water				
NON-RURAL WORK	Child care Running errands	Business, trade		Household work Travelling to business				Supervising household	

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