



Pulling rickshaws in the city of Dhaka: a way out of poverty?

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SUMMARY: *This paper is based on a study drawing on information from current and former rickshaw pullers in Dhaka, Bangladesh. Most of these rickshaw pullers are very poor, and have little education and few skills. Rickshaw pulling provides them with relatively easy access to the urban labour market, and an escape from extreme rural poverty. But the initial trend of modest upward mobility from rickshaw pulling is not sustained in the long run. For the sample in this study, almost all economic and social indicators – including income poverty – deteriorated with the length of involvement in rickshaw pulling. The unsustainability of the livelihood is related to the extreme physical demands of the activity, which are unrealistic in the context of poverty and malnutrition, and which result in high vulnerability to health shocks. The paper concludes that rickshaw pulling provides no permanent route to escaping poverty.*

I. INTRODUCTION

THE CITIES OF Bangladesh have been experiencing overwhelming population growth and extreme poverty. This is, in part, a result of rural poverty, which has led to the migration of poor people from rural to urban areas in search of a better life, better job opportunities and better social services. Most of these rural migrants are absorbed into the urban informal sector, in such activities as petty retail trade, transport, manufacturing, construction and domestic services. In this paper, we examine the condition of Dhaka's rickshaw pullers, a major occupational group in the urban informal sector, and discuss the viability of this livelihood as a strategy for responding to chronic poverty.

Five ideas constitute the central message of this study. They are summarized here and elaborated in the discussion below. First, urban rickshaw pullers in Dhaka come from very poor economic backgrounds consistent with the characteristics of chronic poverty. Second, rickshaw pulling provides a route for modest upward mobility for those chronic rural poor who come to the city for work. Third, the rickshaw pullers are susceptible to systematic health risks; deteriorating health, combined with health shocks, can impose a significant burden on the urban poor, dragging down the pace of upward mobility during their lifetime. Fourth, rickshaw pulling represents an unsustainable livelihood, as the initial welfare gains taper off with length of involvement in the sector. As longitudinal data is lacking, this story has emerged from a comparison of younger, recent joiners and

older, long-duration rickshaw pullers, as well as current and former pullers. Fifth, intergenerational mobility of rickshaw-puller households is constrained by very limited schooling and the poor range of occupational choices for children. Public policy has an important role to play in mitigating health shocks, as well as supporting targeted education for the urban poor in the informal sector.⁽¹⁾

II. DATA

THE STUDY IS based on a sample of 402 current rickshaw pullers and 98 former rickshaw pullers who, at the time of the survey (April–June 2003), were all living and working in Dhaka. A stratified sample was drawn at random from different points in the city, and all age groups were included.⁽²⁾ Selected rickshaw pullers were interviewed using a more detailed structured questionnaire. The sub-sample of former rickshaw pullers (i.e. who had been rickshaw pullers at some stage in their lives but who were now engaged in another activity) was drawn from low-income neighbourhoods on the basis of information provided by other individuals, including rickshaw pullers. They were interviewed using a shorter version of the questionnaire. Although the sample population represents both groups, this paper concentrates primarily on current rickshaw pullers, and information on former rickshaw pullers is only referred to, where necessary, to substantiate a point about rickshaw pullers or rickshaw pulling.

III. PROFILE OF RICKSHAW PULLERS AND THEIR FAMILIES

THE AVERAGE AGE of the sample rickshaw pullers is around 38 years, with 53 per cent falling in the 30–44-year-old age group and numbers dropping sharply after the age of 45. About 5 per cent of the sample is aged 60 years or more. A negligible proportion is under the age of 20. The estimated average duration of rickshaw pulling for the sample rickshaw pullers is ten years. While some 61 per cent have been pulling for fewer than ten years, a significant proportion (14 per cent) has been pulling rickshaws for more than 20 years.

Most of the sample rickshaw pullers are married (87 per cent), 11 per cent are unmarried, and only 2 per cent are widowed or divorced (although this is twice the estimated national figure).⁽³⁾ In general, the rickshaw pullers come from very poor origins, both in terms of household human capital assets and physical capital assets.⁽⁴⁾ In both respects, rickshaw pullers belong to one of the most deprived social categories. They are mostly uneducated (58 per cent) or semi-educated, having never completed primary-level education (17 per cent). Of the remaining 25 per cent, only 2.5 per cent reported having finished secondary school; all the others either completed primary school but did not continue (9 per cent) or did not complete secondary education (13 per cent).

Rickshaw pullers who have joined the occupation relatively recently (in the last five years) come from higher educational backgrounds than those who have been pulling rickshaws for 15 years or more, and these groups represent two socially distinct waves of migrants. Two-thirds of recent rickshaw pullers are uneducated or semi-educated, compared to 83 per cent of the older generation of pullers. This difference is to be expected, given the

1. Several studies of rickshaw pullers have been carried out, but none have focused on the long-term health effects and resultant unsustainability of rickshaw pulling, as this study does. See, for example, Rashid, Selim (1978), "The rickshaw industry of Dhaka: preliminary findings", Research Report No 51, BIDS, Dhaka; also Masum, M (1988), "Informal financial markets in rural Bangladesh: the case of rickshaws", Working Paper No 13, BIDS, Dhaka; and Gallagher, Rob (1992), *The Rickshaws of Bangladesh*, University Press Ltd, Dhaka.

2. The different points in the city that are covered include Mohammadpur Bery Badh, Mohammadpur Shia Masjid area, Mohammadpur town hall, Mohammadpur Krishi market, Asad Gate, Jigatala, Shamoly cinema hall, Shaymoli ring road, Sheorapara, Agaragaon market, Agargaon Planning Commission Office, Manik Mia Avenue, Bijoy Sharani, Dhaka zoo, Mirpur 1, 2, 10, 11, 13 and 14, Pallabi, College Gate, Farm Gate, Shahabag, Malibag, Elephant Road, New market, Azimpur, Motijheel, Jatrabari, Lalbagh, Kamrangir Char, Sutrapur, Sadarghat, Khilgaon, Kamalapur railway station, Sabujbagh, Gabtali, Kachukhet, Ibrahimpur, Banani, Mahakhali, Bhashantek and other similar places.

3. Less than 1 per cent of males over the age of 20 are widowed or divorced. See BBS (1994), *Statistical Yearbook of Bangladesh*, Ministry of Planning, Bangladesh.

4. Multiple asset and process indicators may be considered to ascertain whether a particular social category belongs to the most disadvantaged groups. For an application to Bangladesh data, see Sen,

Binayak and Sharifa Begum (1998), "Methodology for identifying the poorest at local level", Technical Paper No 27, *Macroeconomics, Health and Development Series*, World Health Organization, Geneva.

rapid expansion of primary education in rural areas during the 1990s.

As many as 62 per cent of the rickshaw pullers reported having no cultivable land at all, and another 22 per cent reported having less than 50 decimals – the standard cut-off point in Bangladesh for defining functional landlessness. Housing status is also poor for the rickshaw pullers. Almost none of the pullers own a house in Dhaka, although 83 per cent own a house in their home village. The younger rickshaw pullers, or those who joined the occupation in recent years, come from relatively better-off backgrounds than their older counterparts. Only 44 per cent have no cultivable land at all, against 75 per cent for those who joined the occupation more than 15 years ago. Among the recent pullers, 20 per cent have more than 100 decimals of land, compared to 2 per cent of the older generation. All recent rickshaw pullers own a house in their village, while only two-thirds of the older generation do so. This phenomenon of younger people from relatively better socioeconomic backgrounds migrating to cities and undertaking rickshaw pulling as an economic activity may reflect the growing problem of unemployment among rural youths. Of married rickshaw pullers, 19 per cent have economically active wives. More than half of these wives work in garment factories, and about one-third work as maidservants.

More than 90 per cent of the rickshaw pullers in Dhaka city came there straight from the villages. Substantial numbers of long-duration rickshaw pullers have lived in Dhaka city for significant periods, while recent rickshaw pullers tend to be recent migrants to the city and are likely to have made this move in search of a better livelihood. The average duration of residency in Dhaka city among the sample rickshaw pullers is 11 years. Of those who are married, about 60 per cent live with their family, i.e. the entire family has migrated to the city.

Although few rickshaw pullers own a house in Dhaka, not all live in rented accommodation. Twenty-one per cent live in rent-free accommodation, generally provided by the rickshaw owners and located in the rickshaw garages. Almost all the rickshaw pullers (93 per cent) who live in Dhaka city with their families live in one-room houses, with an average of four persons living in that one room. Among those who live collectively, the average is 17 persons sleeping in a single room. Housing quality is very poor. Although the roofing material is corrugated tin in 95 per cent of cases, wall materials are generally of a lower quality and in one-third of the houses consist of bamboo, polythene or similar low-quality materials. The recent joiners (less than five years) appear to live in houses with better-quality walls; only 5 per cent of the houses of recent rickshaw pullers have poor-quality wall materials, compared to 49 per cent for the older generation.

Almost all of the households of rickshaw pullers who live with their families have access to some urban amenities: 90 per cent have electricity; 52 per cent have gas facilities; 62 per cent have access to tap water; 78 per cent have bathroom facilities; 99 per cent have latrine provision; and 61 per cent have a separate kitchen. However, most of the facilities are shared and are rated as highly inadequate, especially water, sanitation and kitchen facilities. In terms of consumer durables, about 14 per cent of the rickshaw pullers' houses have a chest of drawers; 36–46 per cent have a table, chair, watch or clock; 87 per cent have a bed (*chowki*) or cot; 23 per cent have a working radio; and 15 per cent have a working television.

Prior to migration to Dhaka city, 58 per cent of the rickshaw pullers worked as casual day labourers, mostly in the agricultural sector. Previous studies show that the incidence of extreme poverty is highest among agricultural wage labourers,⁽⁵⁾ so a large proportion of the sample rickshaw

5. An attempt to devise extra-poor-sensitive indicators, by emphasizing broad group characteristics rather than individual targeting, revealed that, among a host of tested variables, three stand out prominently. They are land, housing and occupation. In Bangladesh, it has been observed empirically that the poorest are agricultural labourers, those who reside in Jhupri, or those living in single-structure thatched homes with a maximum owned land area of 50 decimals. See reference 4, Sen and Begum (1998).

pullers appear to have come from the rural extreme poor. The next most commonly reported occupation was "rickshaw/van/pushcart driving" (20 per cent). Few were engaged in farming (10 per cent) or petty business (9.5 per cent). About 5 per cent had been children or students before migrating to Dhaka city, and only 4 per cent had been unemployed. This pre-migration occupational profile suggests that the rickshaw pullers migrated to Dhaka not only in search of employment as such, but also for more remunerative occupations. This has been found to be true in general for the recent poor migrants to urban areas, particularly to the Dhaka area.⁽⁶⁾

For nearly 80 per cent of the respondents, rickshaw pulling was the first economic activity after migrating to Dhaka; the remaining 20 per cent were mostly day labourers and workers in the service sector. Rickshaw pulling thus seems to be the easiest available work option for rural migrants to Dhaka city. Indeed, several studies have noted that the most important or commonly held informal-sector occupation of rural migrants, particularly to Dhaka city, is rickshaw pulling.⁽⁷⁾

The average household size for rickshaw pullers is 4.5; but the average rickshaw puller supports five persons, including him. In other words, on average, an additional half person. Ninety-three per cent of married rickshaw pullers have at least one living child, and 37 per cent reported four or more living children. The educational profile of the rickshaw pullers' children is little better than that of their fathers. Among children aged 20+, 55 per cent have no formal education at all, and another 16 per cent have only an incomplete primary education. Thus, more than 70 per cent of these adult children are likely to be semi-literate at best. The school attendance rate of children aged between 5 and 15 is only about 63 per cent. Thus, it seems likely that this low level of educational attainment will continue. The school attendance rate was found to be lower among children living in Dhaka (58 per cent) compared to those living in the villages (73 per cent). This rural-urban gap exists even when age and work characteristics are taken into account. In general, there is a lack of targeted education programmes for the urban poor compared to what is available to the rural poor. The higher cost of living in urban areas may also mean that children of the urban poor are more often required to work to supplement household income. The work-participation rate of rickshaw pullers' children in Dhaka city is higher than that for children who remained behind in the villages.

In terms of building human capital – which arguably is a key to overcoming poverty in the longer run⁽⁸⁾ – the rickshaw pullers of Dhaka city do not seem to have any advantage over their rural counterparts. Moving themselves and their families to urban areas seems only to reduce the prospects for escaping poverty in the longer run, since children are more likely to remain uneducated. This intergenerational transfer of poverty can then "reverse" during the rickshaw pullers' later life, when children who have not escaped poverty remain largely unable to support their ageing parents.

Nine per cent of the 10–14-year-old children of the sample rickshaw pullers work regularly, and 2 per cent do so on an irregular basis. In the 15–19-year-old age group, the figures are 40 per cent and 11 per cent, respectively; and for the 20+ age group, 56 per cent and 6 per cent, respectively. Involvement in work is relatively greater for male children, with 10 per cent working regularly and 4 per cent on an irregular basis in the 10–14-year-old group; 54 per cent and 16 per cent, respectively, in the 15–19-year-old age group; and 93 per cent and 5 per cent, respectively, in those aged 20+.

6. Afsar, Rita and M Hossain (1992), "Urbanization and urban poor in Bangladesh: issues trends and challenges", BIDS (mimeo).

7. Siddiqui, K, S Rowshan Qadir, S Alamgir and S Huq (1990), "The informal sector poor of Dhaka city" in *Social Formation of the Dhaka City*, University Press Ltd, Dhaka; also Centre for Urban Studies (CUS) (1983), "Slums in Dhaka city", University of Dhaka; and Begum, Anowara (1997), "The socioeconomic condition of the pavement dwellers of Dhaka city", Research Report No 150, BIDS, Dhaka.

8. Sen, Binayak (2003), "Drivers of escape and descent: changing household fortunes in rural Bangladesh", *World Development* Vol 31, No 3, pages 513–534.

While the labour-force participation of adult children, particularly of sons, is quite satisfactory in the sense that almost all are employed regularly in some economic activity, occupational choice is poor. Given the educational background of adult children, this is to be expected. Three major economic activities, employing more than 80 per cent of adult sons, are: skilled and semi-skilled labour (e.g. masonry and carpentry); wage work in the agricultural and non-agricultural sectors; and occupations such as rickshaw pulling and van/pushcart driving. These occupations provide neither sufficient income nor livelihood security. Working adult daughters of rickshaw pullers are almost wholly employed in garment factories (92 per cent), with 4 per cent working as domestic help. The occupational profile of the rickshaw pullers' adult children indicates little likelihood of upward mobility.

IV. CHARACTERISTICS OF RICKSHAW PULLING

OF THE SAMPLE rickshaw pullers, only 13 per cent own a rickshaw themselves and the remainder hire the vehicles. Longer-duration pullers are more likely to own their own rickshaw, and 18 per cent are owner-pullers compared to 5 per cent of recent joiners. However, a large majority of those who have been pulling rickshaws for more than 15 years still rent. This suggests that there are barriers to ownership and/or that a rickshaw is not perceived to be a sensible investment by the rickshaw pullers. The unsettled lifestyle, job changes and frequent visits to rural areas can make rickshaw ownership difficult for rural migrants. Space to keep a rickshaw is difficult to find and obtaining a rickshaw licence can also pose formidable problems.

Of the sample, 92 per cent pursue the occupation throughout the year. Only 7 per cent undertake seasonal rickshaw pulling, and these are primarily recent joiners. Ninety-five per cent work only as rickshaw pullers. More than 60 per cent work every day of the week, 28 per cent take one day off a week and fewer than 10 per cent take more than one day off a week. Very few of the rickshaw pullers (about 10 per cent) pull rickshaws on a "whole day" basis, working from early morning until night. The majority (61 per cent) pull on a "full day" basis, hiring the rickshaw in the morning and returning it by five or six o'clock in the evening. A smaller group (29 per cent) pulls on a "half-day" basis (e.g. from morning until two o'clock in the afternoon). The amount of rent paid to the rickshaw owner generally depends on how long the rickshaw is hired for and its condition. Generally, it costs Tk 50 (US\$ 0.80) to rent a rickshaw for the "whole day", Tk 40 for the "full day" and Tk 30 for the "half-day". On average, rickshaw pullers work for nearly 9.5 hours a day; about 60 per cent pull rickshaws for more than 10 hours a day; and only 19 per cent pull for fewer than 8 hours. Among recent joiners, 88 per cent pull rickshaws for more than 10 hours a day, as opposed to 52 per cent of the middle-duration rickshaw pullers and 43 per cent of long-duration ones. Presumably, the arduousness of the job restricts the number of hours that older, long-duration rickshaw pullers can work.⁽⁹⁾

It is estimated that the daily average income of a Dhaka city rickshaw puller is Tk 143 (approximately US\$ 2.38 in 2003), with 82 per cent of sample rickshaw pullers earning Tk 100–199 (approximately US\$ 1.60–3.20). Those earning more than Tk 200 a day are most likely to be "middle-duration" pullers. The average daily income varies little before 15 years of pulling, although it may increase marginally during this period, and thereafter it declines somewhat. Differences in income among rickshaw pullers are more marked across other occupational features than duration. As might be

9. Although for long-duration pullers age can be a barrier to putting in more hours, the length of time spent in the occupation also matters. Among rickshaw pullers in the same age group, the daily labour input in terms of hours worked declines noticeably the longer an individual has been pulling. However, in terms of weekly engagement, no decline is noted. Thus, a somewhat different dynamic may be at work. When the physical capacity of rickshaw pullers decreases the longer they have been pulling, this adversely affects their work input and income potential. Thus the pressure to work every day to compensate for the daily income loss becomes greater.

expected, the average daily income of the rickshaw pullers who work for a full day is more than those who work for half-days, although nowhere near twice as much. Those who pull a rickshaw six or seven days a week earn about 20 per cent more each day than those who work for five or fewer days a week. Those who work fewer days are also those who work less than eight hours a day. Presumably, whatever prevents them from working longer hours – poor health, for example – also prevents them from working every day of the week.

Why do rural migrants accept rickshaw pulling as an occupation, despite its arduous nature? The most common reason, cited by 83 per cent of the sample rickshaw pullers, is “easy entry”, especially for men who are illiterate, unskilled and lacking capital. Other reasons include the regular flow of income, possibly not found in previous occupations, and the “promise of higher income”. For more recent entrants, reasons such as “earning more money”, “non-availability of suitable jobs” and “peer influence” were relatively more important in the decision-making process, while “regular flow of income” and “easy availability of the job” were the most important considerations for longer-duration pullers.

The survey of former rickshaw pullers suggests that the main reason for leaving the occupation was an inability to continue such arduous labour. Nearly 85 per cent of the sample former pullers were physically unable to continue; a much smaller number (16 per cent) left for a more remunerative occupation. Sickness (10 per cent), accidents (5 per cent) and age (1 per cent) played a less significant role in the decision. Three-quarters of current, and more than 90 per cent of former, rickshaw pullers mentioned physical exhaustion and fatigue as the main problems encountered in rickshaw pulling.

According to engineers, under “normal conditions” rickshaw pulling is not a highly difficult job, and an averagely fit man or woman should be able to work for several hours. But as soon as conditions depart from “normal”, rickshaw pulling becomes something of a feat of endurance. A 10 mph wind doubles the power required to maintain the same speed; a slight gradient of 2 per cent similarly doubles it. Worn tires, rough roads and repeated stopping and starting in busy traffic each raise the power required by up to 100 per cent. A combination of adverse conditions can therefore raise the power required three- or four-fold. Considering that the maximum power output a person can sustain over several hours is around 0.4 horsepower, it is clear that in adverse conditions (which are “normal” for rickshaw pullers in Dhaka), rickshaw pullers have to work nearly as hard as Olympic athletes.¹⁰ Being as physically fit as these athletes is an absurd proposition for rickshaw pullers, who are poor, often malnourished and living in unhealthy environments. Fatigue and exhaustion are the natural outcome of hours, days and years of rickshaw pulling for these men.

The physical exhaustion associated with rickshaw pulling restricts the pullers’ capacity to pursue the occupation on a sustained basis. More than 80 per cent of the sample rickshaw pullers who work half a day, and nearly 95 per cent of those who work fewer than six days a week, report physical incapacity as the main reason for doing so. Those who work every day do so primarily to satisfy the daily subsistence needs of their families. Although the rural migrants may have been able to achieve some upward income mobility by taking on rickshaw pulling in Dhaka city, this enhanced income may not be enough to allow them a comfortable life. Children’s education and daughters’ marriages both became significantly important reasons for working every day for the longer-duration pullers.

10. The British cycling record for 100 miles involved an average output of 0.44 horsepower over 3.75 hours. See reference 1, Gallagher (1992), pages 345–346.

V. HOUSEHOLD INCOME AND EXPENDITURE, AND OTHER INDICATORS OF WELL-BEING

FOR THE SAKE of simplicity, the discussion on household income, expenditure and other features relating to the well-being of the rickshaw pullers will focus on those who are ever-married, i.e. living in Dhaka with their families. The average monthly household income for this group of rickshaw pullers, taking into account all sources of income, is estimated at Tk 4,591 and rises over time; the average monthly household income for recent joiners is Tk 4,160, that for medium-duration pullers Tk 4,604, and that for long-duration pullers Tk 4,782. The average monthly per capita income is estimated at Tk 1,073, with the highest being for medium-duration rickshaw pullers (Tk 1,109) and the lowest for long-duration ones (Tk 920, or 17 per cent lower). The incidence of income poverty within this group is nearly 18 per cent, with 3 per cent living in extreme poverty (60 per cent of the income poverty line). As would be expected from the per capita income statistics, the incidence of poverty is highest among the long-duration rickshaw pullers. More than a quarter (27 per cent) live in poverty, and more than 5 per cent in extreme poverty. By contrast, only 10 per cent of recent joiners live in poverty, and none in extreme poverty.

The income-based evidence suggests that, in general, the level of well-being among long-duration rickshaw pullers may be lower. Although we do not have any longitudinal data to prove this point conclusively, there is strong evidence that the limited upward mobility achieved by the young rural migrants through rickshaw pulling tapers off in later years, when they reach a certain stage in the occupation and/or a certain age. This cross-sectional contrast pertaining to the duration of rickshaw pulling as well as age may well reflect what happens over time to the rickshaw pullers. The income from rickshaw pulling for the current pullers diminishes over time by 5–10 per cent, and per capita household income by 14–33 per cent over a 15-year period, as measured across duration of rickshaw pulling and age of the pullers (Table 1). A comparison of household income for current rickshaw pullers with that of former rickshaw pullers, which is 9 per cent lower, further reveals the long-term adverse effects of rickshaw pulling (Table 2). Per capita income is also about 8 per cent lower among former pullers. Exit strategies provide a route for upward mobility only for a few; only about one-third of former rickshaw pullers reported that they had moved to more remunerative occupations. Indeed, at the time of interview, 8 out of 98 former rickshaw pullers had no work or no regular employment from which to earn an income. These points support the earlier observation that those who abandoned rickshaw pulling and switched to another activity did so because they found pulling physically difficult rather than because they were moving to a higher-paid occupation. Notwithstanding the generally lower income, virtually none of the former pullers expressed any desire to go back to rickshaw pulling.

Who are the fortunate few who leave rickshaw pulling to enter higher-income jobs? Income variation over time for former rickshaw pullers throws some light on the issue. Those who had pulled for 5–9 years had the same average individual income as current rickshaw pullers who have been in the job for 5–14 years (the average.) Those who had pulled for fewer than 5 years, or more than 10 years, had significantly lower average incomes than those of the matching current rickshaw pullers. There is a negligible difference between per capita and household incomes of former rickshaw pullers aged 30–44 and those of current rickshaw pullers in the same age group.⁽¹¹⁾

Table 1: Monthly household income of current rickshaw pullers by income source and duration of rickshaw pulling	Income in taka/duration of rickshaw pulling (years)			
	< 5	5–14	15+	Total
Income from rickshaw pulling	4,068	3,800	3,680	3,807
Wife's income	–	396	325	310
Children's income	53	308	597	358
Land/other asset	39	83	180	107
Income from other family member	–	17	–	9
Total	4,160	4,604	4,782	4,591
Income per household member	1,073	1,109	920	1,020
	Percentage distribution			
Income from rickshaw pulling	97.8	80.7	76.3	81.7
Wife's income	–	8.4	6.7	6.7
Children's income	1.3	6.5	12.4	7.7
Land/other asset	0.9	1.8	3.7	2.3
Income from other family member	–	0.4	–	0.2
Total	100.0	97.8	99.1	98.6

Note: Information relates to month prior to data collection.

Table 2: Monthly household income of current and former rickshaw pullers by income source and age group	Income in taka/age group (years)			
	< 30	30–44	45+	Total
	Current rickshaw puller			
Income from rickshaw pulling	3,778	3,928	3,599	3,807
Wife's income	270	340	270	310
Children's income	–	192	764	358
Land/other asset	65	92	148	107
Income from other family member	87	–	–	9
Total	4,200	4,552	4,781	4,591
Income per household member	1,325	1,063	894	1,020
	Former rickshaw puller			
Own income	2,967	4,002	2,273	3,361
Wife's income	250	393	420	389
Children's income	–	37	791	274
Land/other asset	–	134	273	167
Help	–	–	32	10
Total	3,217	4,566	3,789	4,201
Income per household member	919	1,069	750	944

At the same time, a similar proportion of former rickshaw pullers aged 30–44 live in poverty, as do current rickshaw pullers in the same age group. Poverty among older and younger former rickshaw pullers is significantly higher than among those still pulling. A similar pattern is observable for rickshaw pullers who left the occupation within 5–9 years, compared to

11. As only six former rickshaw pullers are in the under-30 age group, they are excluded from the present analysis.

12. The mean duration elapsed since abandoning rickshaw pulling is 33 months for the 30–44 age group, and 48 months for the 45+ age group. The average duration of rickshaw pulling by former pullers was seven years for the 30–44 age group and 12 years for the 45+ age group.

those who abandoned the job earlier or later. Many of those who abandon rickshaw-pulling relatively early – both in their rickshaw pulling careers and in their lives – appear more likely to improve their lot through opting for another occupation. There are likely to be multiple reasons why an individual rickshaw puller would leave rickshaw pulling during that particular period, including opportunities and changes in household needs, but these probably combine with the realization that rickshaw pulling is not sustainable in the long term.

Those who abandoned the occupation relatively late are the worst off – even compared to current rickshaw pullers in the same age group.⁽¹²⁾ Presumably, they have been compelled to abandon rickshaw pulling under desperate conditions, when it was difficult for them to engage productively in rickshaw pulling but also in other activities. Evidence suggests that a sizeable number had left rickshaw pulling when they had fallen sick, suffered an accident or simply became too old to sustain the drudgery of rickshaw pulling.

An analysis of household income reveals that, on average, a rickshaw puller contributes 83 per cent towards total household income, a wife 7 per cent, children 8 per cent, and the remainder comes from assets owned by the family, such as land and rent from rickshaws. Although the rickshaw puller's income always forms the major share of total household income, its relative importance diminishes over duration of rickshaw pulling. Contributions by children increase over time (coinciding with an increase in age of the puller and his children). Increased children's contributions fully compensate for the declining income of the ageing, long-duration rickshaw pullers, but it is not enough to protect the household from diminishing per capita income, due to an increase in the family size. In other words, younger children are unable to compensate for the increase in household expenditure that they represent.

The estimated monthly household expenditure of the Dhaka-based ever-married rickshaw puller is Tk 4,081, with a per capita expenditure of Tk 907.⁽¹³⁾ A comparison of household income with household expenditure indicates that rickshaw-puller households in Dhaka generate, on average, a surplus of around Tk 500 a month. Per capita household expenditure, like income, declines with the duration of rickshaw pulling and is almost 10 per cent lower in the long-duration pulling households than in recent-joiner households. Sixty per cent of expenditure goes on food requirements and 22 per cent on housing. The remaining 18 per cent is divided among clothing, children's education, transport, loan repayments, rickshaw-related matters (such as repairs, fines and payments to the police) and health care. On average, about 3 per cent of expenditure is sent to non-immediate family, a similar proportion to that spent on children's education or clothing. Rickshaw pullers' expenditure on asset acquisition is negligible.

According to rickshaw pullers, little is spent on entertainment and recreation, which challenges the commonly held belief that rickshaw pullers often go to watch movies. Even younger rickshaw pullers report spending almost nothing on entertainment, and only 3.5 per cent of all pullers reportedly watch movies. Finally, while on average only about 0.4 per cent of household expenditure goes to addictive substances, for some rickshaw pullers the practice can become a significant problem. It is important to note that the problems associated with self-reporting are likely to be especially acute when it comes to admitting to spending limited household income on entertainment or drugs. Hence, the amounts stated for these types of expenditure may be underestimated.

13. Information on monthly expenditure relates to the month prior to data collection.

Other indicators of well-being, including household savings, assets, food security status, levels of indebtedness and an ability to generate surplus from income, confirm the two key observations made earlier. First, the aspiring rural poor who migrate to Dhaka and take up rickshaw pulling achieve some upward economic mobility. Second, they remain vulnerable, as the initial benefits gradually taper off with duration of rickshaw pulling. In support of the first point, several indicators of well-being can be summarized here. Over a year-round period, 79 per cent of rickshaw pullers' households eat three meals a day; 49 per cent can generate some surplus from income; 43 per cent have positive savings; and 48 per cent have been able to acquire some form of asset from income they have earned. In rural areas, by contrast, only about 60 per cent of households eat three meals a day, year round; only 14 per cent save; and 24 per cent sell some of their assets – in more than one-third of cases, for consumption purposes only.⁽¹⁴⁾

However, to substantiate the second point, the value for all these indicators declines over the duration of rickshaw pulling. For example, 82 per cent of recent pullers' households eat three meals a day, compared to only 72 per cent of long-duration pullers' households. Sixty-six per cent of recent rickshaw pullers generate some surplus from income earned, compared to 39 per cent for long-duration pullers; 66 per cent of the former had some positive savings compared with 37 per cent of the latter; and 53 per cent of the former have acquired some assets compared to 43 per cent of the latter. Even among rickshaw pullers who have savings, the amount held by the long-duration pullers is no higher than that of middle-duration pullers. Nor is the value of their assets higher than that of the other two groups of rickshaw pullers. Thus, while rickshaw pulling initially helps rural migrants to move out of poverty, it does not keep them out of poverty in the long run, and on a durable basis. The most frequently acquired asset by rickshaw pullers is land, not rickshaws. Of those who reported some assets, 40 per cent invested in land and 20 per cent in rickshaws. In monetary terms, half of the money earmarked for acquiring assets is being spent on land, with 10 per cent being spent on rickshaws. This suggests that rickshaw pullers do not consider rickshaw pulling (or owning) as a long-term livelihood strategy. Rather, they would prefer to return to land-based livelihoods and village life. It is also possible that they don't find it safe to invest in rickshaws; 29 per cent of current and 42 per cent of former pullers said that rickshaw theft was a major problem in their occupation.

About 60 per cent of the sample rickshaw pullers report that they can secure a loan in case of urgent need; 34 per cent are uncertain about the possibility, and 5 per cent believe that they have no access to emergency credit. At the time of interview, 46 per cent of the ever-married rickshaw pullers had an outstanding loan.⁽¹⁵⁾ The estimated average loan is Tk 5,535 for those who are actually in debt or, on average, two-thirds of their savings. The rickshaw pullers generally borrow money from informal sources. In two-thirds of cases, they received loans from friends, relatives and neighbours, including rickshaw owners, and in one-third of cases from formal sources such as banks and NGOs. The major reasons for borrowing are asset acquisition, meeting daily needs and health care costs – in 85 per cent of cases, loans are taken out for these purposes. For recent joiners and middle-duration pullers, loans are more often taken out for the health care needs of family members rather than for themselves; for long-duration pullers, the situation is markedly reversed, indicating their high burden of ill health.

14. Nath, N C (1992), "Condition of the rural poor and operation of an anti-poverty programme: a household level analysis", mimeo, BIDS, Dhaka.

15. For comparative purposes, the analysis in this section has been confined to ever-married rickshaw pullers who live in Dhaka with their families.

VI. CRISES

CRISES TYPICALLY TRIGGER the downward movement of poor households and individuals into further poverty. Information on crisis events was collected for the five-year period prior to the survey, during which time the sample rickshaw pullers experienced on average two crises. Only one-quarter had never experienced a crisis during the reference period but the remaining three-quarters had experienced at least one crisis.¹⁶ Recent joiners are less likely to have experienced a crisis in the last five years (64 per cent) compared to long-duration pullers (85 per cent).

Health crises, affecting both the rickshaw puller's own health and that of the family members, are the most frequently encountered type of crisis. Of the 75 per cent of rickshaw pullers who had experienced at least one crisis, 67 per cent had encountered a health-related crisis. The next most frequent type of crisis, experienced by 52 per cent of pullers, relates to personal insecurity, and includes mugging, theft and robbery, household eviction, humiliation,¹⁷ involvement with the police or the courts, physical violence (including rape), abduction and threats. The most frequent crisis of this type is rickshaw theft and "hazards relating to police or court". Financial crises that arise out of the marriage of a daughter or sister (including the provision of a dowry) and other social events, and maltreatment by in-laws leading to divorce have been experienced by about 16 per cent of the rickshaw-puller households. "Misfortunes" such as a house fire, damage to a rickshaw as a result of an accident, or the accidental death of a household member were experienced by 9 per cent of the rickshaw pullers' households, while natural disasters were experienced by only 3 per cent. Except for natural disasters, the incidence of all other types of crises is highest among long-duration rickshaw pullers. On average, a rickshaw puller is required to spend more than Tk 6,000 to mitigate a crisis. Overall, it is health shocks – and not the social ceremonies and dowries – that cost the rickshaw pullers most. This leads to severe resource depletion in the short term, with potentially extremely adverse long-term consequences for escaping the poverty trap.

VII. HEALTH STATUS OF RICKSHAW PULLERS

SUBJECTIVE PERCEPTIONS ABOUT feeling healthy are an important ingredient in both human well-being and behaviour. Data reveal that, on average, only about 60 per cent of the sample rickshaw pullers "feel good" about their current health status, 20 per cent feel "not so good" and another 20 per cent feel "bad". Positive perceptions about health vary inversely with duration of rickshaw pulling. Nearly 70 per cent of the recent joiners feel "good", compared with 42 per cent of long-duration pullers. Among the latter, 27 per cent feel "bad", while another 31 per cent rated themselves as being in "not so good" health. These variations in feelings about their health status is, perhaps, the outcome of the combined effects of age and the drudgery of years of rickshaw pulling, and is linked also to the practice of working for fewer hours a day and/or fewer days a week by this group of older and long-duration pullers.

Two factors underlie subjective perceptions about health and well-being. One is the presence of some recognizable health problem, and the other relates to the general signs of "physical weakness". The latter is most frequently cited. About 80 per cent mentioned physical weakness as a

16. The figure may be even higher depending on the accuracy of recall.

17. This refers to incidents such as: severe insult by local powerful and/or law-enforcing people; dowry-related and other violence against women; divorce/abandonment of female household members; retrenchment from a job with no reason; unwarranted harassment by the police, etc.

reason for feeling "bad", while "health problems" were mentioned by only 38 per cent. Even among recent joiners, 85 per cent noted "physical weakness" as a reason for "feeling bad". This supports the conclusion that irrespective of duration, rickshaw pulling is physically exhausting work. The situation worsens with the depletion of energy linked to the ageing process and duration of pulling.

Before discussing morbidity, it is important to note that the data may significantly underestimate actual morbidity for rickshaw pullers, as only those pullers who were working were included in the survey. Rickshaw pullers who were at home due to illness or fatigue were excluded. Morbidity rates on the day of the survey were estimated to be 11.4 per cent. The figure rises to 39 per cent when the reference period is widened to the past month. Both these rates are higher than those documented for the rural poor.¹⁸ Of sample rickshaw pullers, 28 per cent had suffered from a major illness in the past five years, and about 40 per cent had suffered chronic and/or intermittent ill health. As expected, the burden of ill health among long-duration rickshaw pullers is substantially higher than among recent joiners. On the survey day, about 22 per cent of long-duration pullers were unwell compared to 2 per cent of recent joiners. About half of the former are vulnerable to frequent sickness, compared to 37 per cent of latter and 23 per cent of middle-duration rickshaw pullers.

Among sample rickshaw pullers, acute health problems arise primarily from a small number of conditions: colds and fevers; gastro-enteric problems including acidity and ulcers; aches and pains; and physical weakness. These problems account for 71 per cent of the acute ailments suffered by rickshaw pullers. Chronic illness is also linked primarily to gastro-enteric problems, aches and pains, and physical weakness. The last two make up 43 per cent of all chronic ailments, and are likely to be associated with rickshaw pulling itself. Hence, a significant part of the health vulnerability of the pullers may be related to occupational hazards. Rickshaw pullers consider their occupation to be largely responsible for their continued health problems. They consider that 78 per cent of acute illnesses, 67 per cent of repeat illnesses and 70 per cent of their major health problems are directly or indirectly connected to rickshaw pulling itself.

At first sight, access to health care by the rickshaw pullers seems to be quite high. Eighty-eight per cent of cases of acute illness and almost all major illnesses receive some form of health care treatment. However, only in 77 per cent of cases was the treatment received for acute illness perceived to be adequate. For those who are unable to access adequate health care (or any health care at all), financial reasons are mentioned as the main obstacle. The Dhaka city rickshaw pullers depend primarily on the private sector for health care. This may be an outcome of the lack of a primary health care network in urban areas.

It is well known that ill health can impose a significant economic burden on individuals and households in several ways, with particularly adverse consequences for the poor. The pathways from ill health to poverty operate through the direct costs of treatment and non-medical care, and the indirect costs of lost income (due to days missed and/or diminished productivity). The psychological costs on breadwinners and on family members can also be significant. The partial information that is available shows the extent to which ill health affects the households of rickshaw pullers. The average cost of treatment for an episode of illness is estimated to be Tk 263 for an acute illness and Tk 5,453 for a major illness. A rickshaw puller has to stop work, on average, for four days for each episode of acute illness,

18. Ahmed, Kazi Saleh et al. (1997), "Morbidity and disability patterns of destitute households in rural Bangladesh, 1994 and 1995", *Monograph Series No 4*, BBS, Dhaka; also Begum, Sharifa (1996), "Health dynamics of poverty" in Hossain, Zillur Rahman et al. (editors), *The Dynamics of Rural Poverty, 1987-95*, BIDS, Dhaka (forthcoming).

and for 44 days for each episode of major illness. If this income loss is taken into consideration, then the aggregate cost for an episode of acute illness would be about Tk 863, equivalent to six days' income. For a major illness, the figure would be close to Tk 12,000, equivalent to three months' income. Given the monthly savings potential of an average rickshaw-puller household, a major sickness can wipe out two years of savings. But more than half of pullers have no savings or assets at all, one-fifth are unable to secure three meals a day, half cannot generate any surplus from income and a similar proportion has outstanding debt. Set against this, the average economic burden of ill health is considerable.

Rickshaw pullers generally meet the treatment costs for acute illness from current household income. Only in 6 per cent of cases are they forced to incur debt. As might be expected, the situation is different for major illness or injury. To meet these costs, 30 per cent of the sample rickshaw pullers had liquidated their savings, 16 per cent had disposed of assets and 27 per cent had incurred debt. Reduced physical capacity to work and the resulting negative effects on the income and non-income well-being of the household, are the most commonly mentioned effects. In total, it is estimated that almost one-fifth of all rickshaw pullers every five years, or 4 per cent every year, may face reduced productivity after a major illness.⁽¹⁹⁾ Combined with large-scale resource depletion as a result of a health crisis, decreasing productivity means an even greater chance that a rickshaw-puller household will become trapped in a downward spiral. This can also have significant negative effects on children's education, health and nutritional status, thus affecting the intergenerational development of human capital within a rickshaw puller's household.

19. This estimate was arrived at based on figures denoting that 27.8 per cent of sample rickshaw pullers had suffered from a major health problem in the five-year period; and of these, 70 per cent had reported a reduced physical capacity to work. As previously noted, this is probably an underestimation, as the sample rickshaw pullers are working at present.

VIII. CONCLUDING REMARKS

MOST RICKSHAW PULLERS come from very poor rural backgrounds, and have found rickshaw pulling to be somewhat effective as a route out of poverty. Upon entering the city, rickshaw pulling appears to be a relatively easy livelihood option. An analysis of changing household fortunes over time suggests that those who remain in the occupation for a few years do attain a degree of modest upward mobility. Initially, the incidence of food poverty appears to be much less prominent among rickshaw pullers than among the rural extreme poor. The main advantage that a rickshaw puller has over an agricultural labourer is not so much a higher income but, rather, a regular income flow, which is missing for rural labourers working in an environment marked with high seasonality. When considering the capacity to save, to access credit and to acquire assets, the average rickshaw puller does appear to have a much better chance of escaping poverty than his rural counterpart.

However, although rickshaw pulling may provide an escape from extreme rural poverty, the high degree of susceptibility to crisis appears to be a serious obstacle to sustained upward mobility. An extraordinarily high proportion (75 per cent) of rickshaw pullers reported having encountered at least one crisis in the last five years, with an average incidence of two major crises per household. Of these, two-thirds of the crises and almost half of the crisis-related expenses relate to health shocks. Health-related shocks are the single most important factor in downward mobility, and often originate from the nature of rickshaw pulling itself. The level of morbidity, and the associated decline in the number of days and hours

worked, increases with years of rickshaw pulling as well as with age. The average financial loss per health crisis is more than the average monthly household income. As a result, many liquidate savings and/or assets, and/or go into debt, especially to mitigate major illnesses and injuries related to road accidents. There is a very strong case for health interventions to help rickshaw pullers and their households cope with health shocks.

Thus, the initial trend of “modest upward mobility” is not sustained in the long run. Almost all economic and social indicators – including income poverty – appear to deteriorate with the length of involvement in rickshaw pulling. This is not just because of pullers’ vulnerability to health shocks, as the unsustainability of rickshaw pulling as a livelihood is reflected in several further dimensions. First, the effort that pullers are able to put into pulling, in terms of time spent working, declines with the length of involvement in the occupation. As a result, both rickshaw pullers’ own incomes and household per capita incomes decline. At the same time, the capacity to generate a surplus income for savings and asset acquisition is reduced, indebtedness rises, and both food and income poverty also rise. “Normal” circumstances for a Dhaka city rickshaw puller means having to work nearly as hard as an Olympic athlete, but in a context of poverty and malnutrition. This suggests that it is not only health shocks, or even ageing, that create the conditions of unsustainability, but rather the way shocks and demography combine with a more gradual process of diminishing levels of energy and general well-being.

Policy interventions should focus on encouraging exit from rickshaw pulling at a relatively early stage of involvement, through programmes that, for example, provide credit, training and information.⁽²⁰⁾ The data suggest that it is those “early-middle duration” rickshaw pullers (i.e. who have been in the occupation for 5–9 years and who are aged between 30 and 44) who have the best chance of finding alternative, more remunerative, jobs. Rickshaw pullers who have recently migrated from rural areas appear to have slightly better socioeconomic backgrounds and a higher human capital than their older counterparts, suggesting that they may be better able to succeed in alternative livelihoods. If, by reducing both health risks and associated costs, the savings and asset accumulation of rickshaw pullers could be raised while they were in their prime, at the peak of their productive capacity, then rickshaw pulling might offer a longer-term escape from poverty. Public health measures appropriate to rickshaw pullers may range from the enforcement of road safety regulations, to improved public provision of emergency health care and better coverage of urban primary health care systems so that rickshaw-puller households can access affordable treatment. Improved access to flexible credit, as well as some form of health insurance, may improve the pace of capital accumulation among this group of urban poor.

This case study of rickshaw pullers carries wider implications around issues of “pro-poor growth”. As an ideological formulation, pro-poor growth can vary from “anything that is good for growth must be pro-poor” to “anything that is good for the poor here and now must be good for growth”. Hence, traditionally there has been an emphasis on growth acceleration by any means, with an emphasis on labour-intensive sectors whenever possible. The present study, however, suggests that an analysis of the dynamic effects of labour intensity is crucial to understanding the actual pro-poorness of a growth process and in designing a better policy environment for the poor.

20. Exit programmes may also include measures that create disincentives for involvement in rickshaw pulling as a long-term occupational choice. This is, however, easier said than done. Recent restrictions on the movement of rickshaws on several streets of Dhaka are a case in point. Many pullers have voiced their resentment, citing a loss of income as a result of this measure. In terms of sequencing of measures, creating viable alternatives must precede disincentive measures.

21. See reference 1, Gallagher (1992).

In the early 1990s, according to one estimate, the rickshaw sub-sector accounted for 34 per cent of total value added in the transport sector, and about 4.5 per cent of the national workforce depended on this sector for subsistence.⁽²¹⁾ The importance of rickshaw pulling as a livelihood activity has increased over the past decade. In traditional informal sector literature, this process of rickshaw sub-sector growth would have been considered as a mass example of pro-poor growth, at least in the early stages of development in low-income countries. However, as has been implicitly argued throughout this study, such an assessment does not take into account the absence of a future market for long-duration pullers, who either have to abandon the activity for health reasons or persist on the margins of the sub-sector as part-time pullers. Paradoxically, easy entry and exit, labour intensity and intense competition – all the “positive” characteristics of the rickshaw market – lead to sub-optimal welfare outcomes from the perspective of private returns to labour invested in rickshaw pulling. In terms of social return, the promotion of such activities beyond a certain point in time represents a colossal loss, with immense human social suffering and a perpetuation of poverty.

