EDUCATIONAL DISPARITY IN PAKISTAN, 1947-71

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1 Introduction

Pakistan emerged as an independent nation in 1947, breaking apart from India on the basis of a two-nation theory. The Muslim majority province of East Bengal (subsequently East Pakistan) joined Punjab, North-West Frontier Province, Sind and Baluchistan to form the undivided Pakistan[1]. However, apparently negating the two-nation theory, the Eastern part of Pakistan broke away in 1971. Economic maltreatment of East Pakistan, it is argued, was one of the main factors that led to the disintegration of Pakistan in 1971 leading to the creation of Bangladesh (Auspitz, Marglin and Papenek, 1971; Rao, 1972; Laporte, 1976; Bhatia, 1979).[2] There is ample evidence suggesting that regional differences in various economic outcomes in the united Pakistan were a result of pro-west wing and anti-east wing policy adopted by the central government of Pakistan (Rahman, 1968; GoP, 1970; Falcon and Stern, 1971; Mason et al., 1971).

Given the existing evidence of economic disparity between East and West Pakistan, disparity in social sectors such as education is difficult to rule out a priori. However, a detailed account of the regional distribution of educational facilities and their evolution during 1947-71 is absent in the literature. In addition, none of the early researchers systematically examined the causes behind the regional disparity. Recent research on the issue (e.g., Khatun, 1991; Ahmad, 1999) conveniently attributes the regional disparity in educational to "discrimination" by the state. However, sources of such disparity may lie in unaccounted differences in, say, demographic and socio-economic characteristics of the population, structure of the education sectors of the comparing regions and so on.

The objective of this study is to examine disparity in the distribution of educational resources and facilities between East and West Pakistan. We carry out our analysis by quantifying the extent of inter-regional disparity and its evolution over time using annual data extracted from various historical publications and government documents. More importantly, desegregated regional data on school types, unit costs of schools and educational expenditure are analyzed to identify the causes behind regional disparity, particularly that in the total number of primary schools.

The paper unfolds as follows: Section 2 describes the disparity in educational facilities between East and West Pakistan. Section 3 considers potential explanations for educational disparity. Section 4 is conclusion.

[1] The latter four provinces altogether comprised West Pakistan, being separated from the East by 1100 miles of Indian territory.

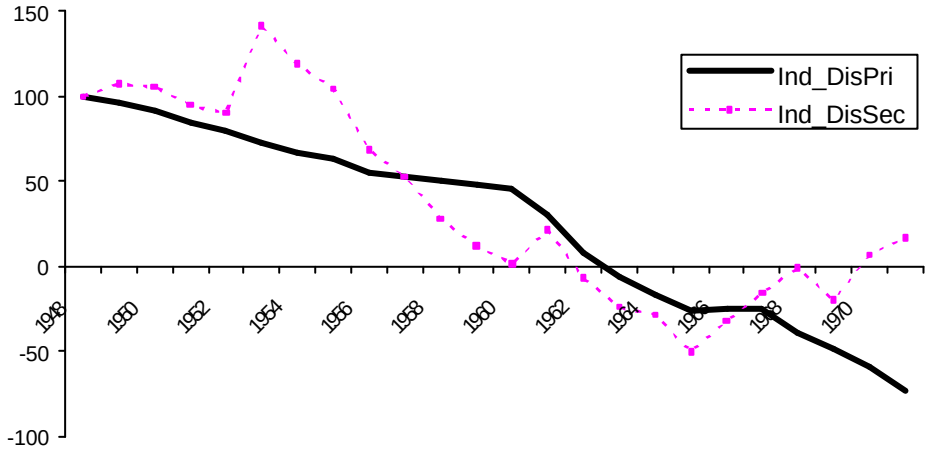
[2] Detailed accounts of such disparities are available in Huq (1963), Stern (1971), Feldman (1971), Akthar (1971), Sengupta (1971a), Ahmed (1972), Griffin and Khan (1972) and Faaland and Parkinson (1976).

2 Educational Disparity between East and West Pakistan

The initial educational endowments of East and West Pakistan were at contrast with each other. East Pakistan had more primary and secondary schools than West Pakistan in 1948[3]. However, by 1971, East Pakistan had less primary schools than it inherited in 1948. On the contrary, school availability in West Pakistan increased many folds: In the first decade since independence (i.e. 1948-58), total number of primary schools in West Pakistan increased from 8357 (in 1948) to 16,474 by 1958. By the end of 1960s, West Pakistan surpassed the Eastern province by a big margin. Similarly, East Pakistan had a total of 3481 secondary schools against of 2598 schools in West Pakistan in 1948. The total number of secondary schools, however, increased by only 77% in the East during 1948-1971 against 127% increase in the West.

The evolution of the resulting disparity in primary and secondary school availability can be better illustrated by a simple "index of disparity". The index is defined as: Ind_Dis_j = [Disparity Ratio – 1]*100, where, "Disparity ratio"= (Total Schools in East Pakistan)/ (Total Schools in West Pakistan); j=primary, secondary. "Ind_Dis_j" is expressed as index with base year 1947-48. Thus the index calculates the annual percentage change in the disparity ratio relative to that in 1947-48. The resulting graph is presented in Figure 1 which plots values of the "index of disparity". The zero axis is the axis of parity so that values above/below it indicates the relative regional deprivation.

Figure 1: Regional Disparity in Primary and Secondary Schools, 1948-1971



Notes: Ind_DisPri= "Index of Disparity in total number of Primary schools"; **Ind_DisSec=** "Index of Disparity in total number of Secondary schools".

From Figure 1, it is clear that, both in primary and secondary education, the extent of disparity deepened through 1971. Till 1963, disparity in total number of primary schools was

[3] Enrolment rate was also higher in primary and secondary education in East Pakistan.

driven by differences in growth rates between East and the West. By 1963 (1964), the total number of primary (secondary) schools converged in East and West Pakistan. In post 1963 years, West Pakistan had both an absolute and relative advantage in the total availability of primary schools. The relative advantage of the West in the total number of secondary schools was rather short-lived (only from 1962-1966), though the absolute advantage over East Pakistan prevailed till 1969.

Looking at the supply of teachers, a similar story emerges. Inter-regional differences in growth in the number of teachers led to inter-regional disparity in the student-teacher ratio (STR). By 1971 primary STR had increased in East Pakistan by 61% against only 36% in West Pakistan (compared to figures for 1947-48). Similarly, East Pakistan lagged behind West Pakistan in the supply of secondary school teachers. Appendix Table 1 summarizes these points by providing mean values of STR and school size for East and West Pakistan.

Lastly, for an alternate illustration of the extent of educational disparity experienced by East Pakistan, we further use data from selected Indian states as our benchmark. The Indian federal system was similar to that of Pakistan during 1947-71 except in two respects: (a) The India act 1935 extended provincial autonomy to all the provinces of pre-1947 India[4]; and (b) Provinces within India were not subjected to a resource transfer of the "quasi-colonial" type as was the case with East Pakistan.

Analysis of trends in primary school availability, total enrolment, and total number of primary school teachers for East Pakistan vis-à-vis that of West Bengal, Uttar Pradesh and (East) Punjab during 1948-1966 shows that East Pakistan was much ahead of the three Indian states in 1947-48 in all respects. However, by 1965-66, it fell behind both West Bengal and Uttar Pradesh: Despite greater number of students in school, East Pakistan had smaller number of schools than West Bengal by the mid 1960s. This resulted in over-crowded schools and larger class size in East Pakistan in comparison to the Indian states. Hence, even by a broader regional standard the observed decline of school infrastructure (particularly that of primary schools) in East Pakistan is unusual.

3 Educational Disparity: "Discrimination" or a Fallacy of Data?

The singular decline in the total number of primary schools in East Pakistan in post-1947 years has been attributed by some researchers (e.g. Chowdhury, 1972) to "a deliberate policy of neglect" of the central government. However, such decline could be driven by other changes on the supply side, in addition to various demand-side factors. Thus what appears to be

[4] this autonomy continued in post-1947 years in India whereas it was scrapped in 1948 in Pakistan

a result of "a deliberate policy of neglect" is likely to be confounded by unaccounted differences in various characteristics of the comparing regions.

First, regional disparity in education could mirror regional differences in demographics: a region with relatively larger (or faster growing) school-aged population may be allocated a greater share of the newly constructed schools and newly recruited teachers. Analysis of data on population growth rate reveals that East Pakistan grew at a higher rate than the West. In terms of the distribution of population aged 5-14 years, both wings had a similar total, although in terms of actual enrolled student population, East Pakistan was ahead of the West at all times.

Second, regional disparity in the total number of (primary) schools could be attributed to differences in (a) relative share of the private education sector, (b) proportion of unrecognized private schools and (c) proportion of schools in multiple shifts. Relative decline in school availability in East Pakistan could be explained by the (declining) growth of private schools over public (and/or publicly aided) schools. However, in both East and West Pakistan, majority of the primary schools were either publicly owned and managed or publicly financed. For example, in 1949-50, of the total 26991 primary schools in East Pakistan, 26% were publicly aided and only 3% were private unaided schools. By 1955-56, the share of private aided and unaided schools was 14% and 3% respectively. Similarly, analysis of schools-ownership data for different provinces in West Pakistan (for the year 1963-64) shows, in all the provinces primary schools were mostly in public management. Hence, the boom in the total number of primary schools in West Pakistan is not attributable to greater share of private schools.

One could also explain the decline in the total number of primary schools in terms of unrecognized private schools. Published aggregate data on the number of unrecognized institutions however indicate that these were very small in numbers and had been decreasing since 1947. For example, the total number of unrecognized schools in East Pakistan in 1947-48 was 907 (GoEP, 1956). However, by 1963, the number decreased to a total of 193 (GoEP, 1965). A fraction of (public) primary schools in East Pakistan also operated in double shift schools but only with single set of teachers[5]. This system, however, did not make up for "missing" schools in any meaningful was: anecdotal evidence suggests that most of the double-shift schools in reality offered different grades in different shifts.

Third, educational disparity could be attributed to relatively higher unit-costs of school operation in East Pakistan. Unit costs could be high either because of (a) under-utilization of the existing capacity, and/or (b) higher input price (such as teacher pay)[6]. In the presence of high

[5] The proportion of primary schools operating in double-shift is not known. According to one estimate, as many as 44% schools may have been operating in double-shifts in East Pakistan (Haque, 1977). Besides, we do not know how many of the schools in East Pakistan were operating in double shift before 1947.

[6] Unit cost in East Pakistan is a multiple product of STR and average teacher salary. This is because total salary bill is approximately equivalent to total recurrent expenditure in East Pakistan.

costs and overall budgetary constraints facing East Pakistan, a rational response is increasing the STR instead of building new schools or recruiting new teachers. However, data available on school costs from the 1950s suggest completely the opposite. Schools in East Pakistan (a) were poorly resourced with inadequate physical facilities, (b) employed the least paid teachers and, (c) were already as crowded as those in West Pakistan in 1948. Thus lower unit cost of primary schools in East Pakistan was maintained mostly by (a) paying teachers significantly low salary (than their counterparts in the West) and (b) keeping the ratio of teacher-student to a minimum. In contrast, schools in West Pakistan had a higher proportion of non-teacher expenditure despite teacher pay being six times higher than that in the East (Huq, 1956). The situation was not very different in the later years: in the 1960s, starting salaries in West Pakistan were 3 times higher than those in East Pakistan and average salaries were about twice as much (Curle, 1965). Hence, the growth in regional disparity in education cannot be attributed to regional differences in unit cost.

Total national expenditure on education in the united Pakistan increased from less than 1% of GDP in 1947 to 1.2% in 1958 to 2.6% by 1964. While this trend was well-matched by a higher growth of schools in West Pakistan, it is clearly in contradiction with the stagnant schooling conditions in East Pakistan. We thus seek for an explanation of disparity in terms of state policies and actions that may have negatively affected distribution of economic resources towards East Pakistan and therefore "discriminatory". In a federal system of governance, one could view disparity as a joint product of (a) central government control and (b) limited scope of the respective provincial government for independent action in educational provisions (Faaland and Parkinson, 1976).

Educational developments in a federal system significantly depend on allocations of central government budgets. However, East Pakistan singularly received smaller allocation from the centre than the west. These allocations were guided by various five-year plans. In the pre-plan period (i.e. 1948-55), East Pakistan's share of central government development expenditure had been as low as 20% (despite having 60% of the country's population). This later peaked only at 36% during the third Five Year Plan period i.e. 1965-66 to 1969-70 (GoP, 1970).

Provincial governments in Pakistan, however, had an inescapable responsibility for the delivery of education in post-1947 year. It could be that provinces did not allocate enough resources for educational developments. But the extent of provincialization of educational provision and the ability of the East Pakistani government to deliver education was not exogenous of central government policies. During the British period, local bodies (not the provincial government) were made responsible for the general administration of primary education, a step which soon proved to be disastrous. As a response, primary education was made a responsibility of the (provincial) government in all provinces (with local administration

in the hands of the village and town boards) of Pakistan in post-1947 years. However, only East Pakistan and Punjab were kept out of this reform (GoP, 1958).

A comparison of the percentage share of education in provincial budget of East and West Pakistan reveals no significant difference in percentage share of budgeted expenditure on education during 1952-68. Hence, any educational disparity between the two regions has to be explained in terms of overall size of provincial budget. The relatively smaller size of provincial (education) budget in East Pakistan could arise due to limited capacity of the East Pakistan government to generate revenue for development expenditure. However, the provincial government of East Pakistan was not fully entitled to its own income. In 1948, the federal government limited sources of provincial revenues by relocating income tax and sales tax revenue from provincial to central government. This seriously curtailed the overall size of provincial budget. More importantly, reallocation of East Pakistan's export earnings to the West by the Federal government severely shrank provincial budget of the East. The indirect but significant Federal control over sources of finance for government of East Pakistan stunted the growth of schools in the latter during 1947 through 1971.

4. Conclusion

This paper has revisited the educational infrastructure in East and West Pakistan during their quarter century of union (1947-71). During this period, we find that school infrastructure declined steeply in East Pakistan. While West Pakistan gained 35287 additional primary schools, those in East Pakistan embraced a negative growth - by 1971, the total number of primary schools in East Pakistan declined by a total of 902 (since 1947). Similarly, the growth of secondary schools suffered. A higher rate of growth and level of school-aged population left class-rooms in East Pakistan over-crowded. Exactly how many "missing" schools have characterized the observed disparity in East Pakistan is not known. Under various assumptions, it turns out that at least 29% of the actual total number of primary schools may have been missing in East Pakistan by mid 1960s[7].

Identifying the exact cause of the educational decline in East Pakistan is difficult in the absence of detailed retrospective micro-data. We have nevertheless attempted to eliminate many of the key "non-discrimination" type explanations for the disparity using aggregate temporal data. We argue that these regional disparities cannot be attributed to regional differences in

[7] Appendix table 2 presents the underlying crude estimates of "missing" schools. The critical question in the calculation of the number of missing schools is the "expected" school size (SZ) that would prevail in the absence of "discrimination". If schools were not commensurate with the growing school-age population, how many schools would have been needed, say, to keep the school size constant? As "non-discriminatory" estimates of SZ, we use SZ figures of West Bengal in 1966. As additional (alternative) bench mark, we also use figure for West Pakistan in 1969.

school types, extent of private sector participation, differences in the level and growth rate of school-aged population and difference in unit costs of schools. Rather, this problem is examined in terms of an outcome of the quasi-colonial policies of the Pakistani government (i.e. the hypothesis of "discrimination") as an alternate explanation.

Notwithstanding the evidence of educational disparity and its underlying causes, we cannot conclusively conclude that the observed difference in school infrastructure is a direct result of "discrimination" by West Pakistan. Other potential explanations for differences in educational facilities between East and West Pakistan still abound although we argue that most of them are unlikely to stand up to careful scrutiny on the basis of data available at hand. We nevertheless exercise caution in interpreting our results. This is despite anecdotal evidence suggesting disparity in educational outcomes such as literacy rate, pass rates in matriculation examination and drop outs (Jillani, 1963). Future research should examine whether such human capital inequalities in East Pakistan were driven by disparities in inputs discussed in our paper.

Appendix

Table 1: School Availability, STR and School Size during 1948-71

	East Pakistan		West Pakistan	
	1947-48	***1970-71***	***1947-48***	***1970-71***
Primary School				
Total no. of Schools	29633	28731	8413	43700
STR	26.73	42.97	30.54	41.12
School Size	68.22	175.42	64.70	90.61
Secondary School				
Total no. of Schools	3481	6162	2598	5900
STR	21.59	24.56	26.95	17.97
School Size	151.11	204.64	195.55	215.08
	East Pakistan		**West Pakistan**	
Primary School	**Mean**	Standard deviation	**Mean**	Standard deviation
STR	41.35	(4.84)	36.48	(3.02)
School Size	135.91	(34.61)	83.4	(6.4)
Secondary School				
STR	23.3	(2.33)	25.51	(4.68)
School Size	193.71	(36.63)	277.63	(48.7)

Data source: Fifty years of Pakistan in Statistics.

Table 2: "Missing" Schools in East Pakistan: Crude estimates using various benchmarks

Year	Actual no. of Primary Schools in EP	Actual SZ in EP	Expected SZ in EP	Benchmark	Missing Schools	% Missing
1966	28042	148.89	105.11	(West Bengal, 1966)	11681	0.29
1969	28908	175.42	90.61	(West Pakistan, 1969)	43540	0.60

Note: The parenthesis indicates the corresponding "non-discriminatory" values.