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# *EDUCATIONAL DISPARITY IN EAST AND WEST PAKISTAN, 1947–71: WAS EAST PAKISTAN DISCRIMINATED AGAINST?*

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# *EDUCATIONAL DISPARITY IN EAST AND WEST PAKISTAN, 1947–71: WAS EAST PAKISTAN DISCRIMINATED AGAINST?*

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## Abstract

This paper documents the regional divide in educational facilities between East Pakistan (now Bangladesh) and West Pakistan between 1947 and 1971. During this period, the total number of primary schools in East Pakistan declined, leading to overcrowding of existing schools and classrooms. On the other hand, despite being endowed with fewer schools, West Pakistan surpassed East Pakistan in the total number of primary schools, and in teacher–student ratios. This evident educational disparity, we argue, cannot be attributed to regional differences in school age population, school types, the quality and unit cost of schooling. Rather, this problem is examined in terms of the hypothesis of ‘discrimination’ as an alternate explanation.

**Keywords:** Economic History; Federalism; Bangladesh;, Pakistan
**JEL Classification:** I20, N35, N950

# I. Introduction

Pakistan emerged as an independent nation in 1947, splitting off from India.[1] The Muslim majority province of East Bengal (subsequently East Pakistan) joined Punjab, North-West Frontier Province, Sind and Baluchistan to form the undivided Pakistan.[2] However, after a quarter-century of union with West Pakistan, the Eastern part of Pakistan broke away in 1971 following a year long civil war. Economic maltreatment of East Bengal, it is argued, was one of the factors that led to the disintegration of Pakistan in 1971 leading to the creation of Bangladesh (Auspitz et al., 1971; Islam, 1972; Rao, 1972; Laporte, 1975; Bhatia, 1979). Discriminatory allocation of government budgets across provinces arguably led to big disparities in the development of infrastructure facilities which, in turn, resulted in marked disparities in economic welfare. If true, similar inequalities would have affected the social sectors. For instance, the supply of schools might have been constrained as a consequence of tightened public budget, directly affecting educational opportunities.[3] A regional divide in educational quality could also ensue. Given allegations of negative bias in economic policy towards East Bengal, a comparative study of the distribution of educational resources and outcomes during the 24 years of united Pakistan is a natural line of enquiry.

While past literature has focused on the question of economic disparity, relatively little is known about inequalities that existed between the two regions in other spheres such as education. Earlier studies, e.g. Curle (1966), while suggestive of disparities in the distribution of educational inputs in the two wings, do not provide a detailed account of the educational facilities and their evolution during 1947–71. In addition, none of the early researchers systematically examined the causes behind such inter-regional disparity. Recent research (e.g., Khatun, 1991; Ahmad, 1999) on the issue provides only a snapshot of the situa-

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

[3] Total school enrolment (or coverage) tends to increase with GDP level. Hence, if the rate of economic growth is smaller than that of the school age population, educational expansion is constrained by resource availability.

tion, conveniently attributing the observed disparity to ‘discrimination’ by the state. However, sources of disparity may simply lie in unaccounted differences in, say, demographic and socio-economic characteristics of the population, structure of the education sector in the comparing regions and so on. Little is known about any differences in these factors that may mirror inter-regional differences in educational facilities. To the best of our knowledge, none of the past research on regional disparity (e.g. Curle, 1966; Huq, 1968) or contemporary studies on education in Pakistan (e.g. Iqbal, 1993; Kazi, 1994; Hoodbhoy, 1998) has looked into these issues in detail.

The objective of this study is to examine whether there existed systematic bias in the distribution of educational resources and facilities during 1947–1971 between East and West Pakistan. We accomplish this by quantifying the extent of inter-regional educational disparity and its evolution over time. Our analysis reveals a decline in educational facilities, both in terms of the relative and absolute availability of primary schools, in East Pakistan. Collating disaggregated regional data on school types, quality, unit cost of school, and public expenditure on education, we further describe the causes behind inter-regional differences in the education sector in Pakistan. It is argued that the decline in primary school availability in East Pakistan was largely an unintended consequence of a resource constraint that arose in the backdrop of ‘biased’ inter-provincial transfer of resources. By comparing East Pakistan with selected Indian states, we provide a crude test for the above claim in a quasi-natural experiment framework. Comparison of Bangladesh and Pakistan before and after 1971 yields a further test of the hypothesis of resource crunch, yet again mimicking a natural experiment.

The next section describes the broader political context in which resources were allocated across regions in Pakistan during 1947–71. Section three provides an overview of educational planning in the country, in addition to describing the educational profiles of East and West Pakistan. The inter-regional differences in educational facilities during the said period are discussed in section four. Section five considers various potential explanations for inter-regional differences in education between East and West Pakistan and advances the hypothesis of resource constraint as a residual explanation. Two simple tests of this hypothesis are elaborated in section six. Section seven is the conclusion.

# II. Background: Economic policy making in Pakistan

Following its separation from India, Pakistan inherited a federal structure of governance under which subjects such as foreign affairs, defence and commerce were administered by the central government whilst matters like education and health were concerns of the respective provincial governments. In reality, however, the division of planned development activities in the public sector between the central and provincial governments did not follow the line of division of subjects between the two. Federalism did not fully operate in development affairs. Development planning relating to education, which was included in the provincial subjects, was often undertaken by both the central and provincial government. The division of development projects between the Centre and the province did not follow any definite principle**.** The extent and nature of central government interventions varied over time with changes in the political landscape of the country (Sadeque, 1957).

Pakistan's history during 1947–71 is characterised by two distinct political transitions. The central government of the state of Pakistan was set up in the Western wing of the state primarily because most of the Muhajirs, upper class Muslim refugees from the central Indian provinces, migrated to the western wing. The Centre was dominated by the ruling elite – Punjabi and Muhajirs – who controlled the bureaucratic apparatus and the armed forces. Other indigenous/ethnic groups/elites in West Pakistan – Baluchis, Pathans and Sind – had limited political representation (Kazi, 1994). The Bengalis, largely concentrated in East Pakistan, also remained vastly under-represented at the Centre.

The second political phase relates to the period 1955–1971, which is known as the 'One Unit' era. Primarily to resolve the problem of political representation with East Pakistan, the Centre coerced four Pakistani ethnic nationalities/provinces to form one administrative unit: the single province of West Pakistan emerged in September, 1955.[4] This integration not only secured the dominance of the Punjabis and the Muhajirs over other ethnic groups within West Pakistan, it also boosted the bargaining power of the Centre vis-à-vis provincial government in the East wing. During the first three years of this period, the country remained under a civilian rule. The head of the army took over power in 1958 and ruled Pakistan until 1968. A new chief martial law administrator assumed power in 1969 whose rule came to an end with the disintegration of Pakistan in 1971. In sum, in the absence of a national election during 1947–71,

[4] Such consolidation was not required in East Pakistan which comprised a single linguistic/ethnic group.

political decision-making remained non-representative, largely reflecting the interest of the ruling elites. This had implications for the process of regional economic development in the country.

The period of 1947–54 witnessed several unilateral political decisions made by the Centre which frequently intervened in provincial matters. In the absence of any national plan document, economic planning during the said period remained almost entirely under the control of the central government. Although the country was ruled by civilian authorities, the incumbent government of the Muslim League remained overwhelmingly pro-Centre. The key instrument with which the Centre wielded its economic hegemony over East Pakistan throughout was the control over provincial revenues. Early in 1948, the government of Pakistan, by a special ordinance, took away from the provinces the sales tax, income tax and a bigger share of import and export duties. Consequently, the government of East Pakistan was forced to rely on land revenue and agricultural income tax, to finance education and health related projects and various administrative expenses, particularly during the pre 'One Unit' era. The fiscal relationship between the Centre and the provinces caused much dissent in the Eastern wing which subsequently saw the landslide victory of the opposition political party, the United Front (UF), against the ruling Muslim League in the first general election held in March 1954 in East Bengal. The UF government pressed for the return of the sales tax and bigger shares of other federal taxes. However, the Centre dismissed the UF government in May 1954. Governor's rule was imposed in the province, which lasted until June 1955 after which the country was placed under military rule.

In contrast to the period 1947–54, economic development during the 'One Unit' era was guided by three comprehensive Five-Year plans in the undivided Pakistan. The planning commission was established at the Centre and made responsible for preparing the plan documents, which dealt with all aspects of national development including education. The plan documents gave highest priorities to industrial development which suited the ruling class at the Centre, particularly the Muhajirs, who also comprised the industrial elites of the country.

This process of development increased inequality in regional income. The Western wing, which had a larger urban population (33%), was the primary beneficiary of such industrialisation. The East Pakistani economy was largely agrarian and 95% of the population resided in the rural areas. Consequently, it was left out of the development process and experienced little gain in per capita income. Although there were some initial disparities between the East and the

West in 1947 (Seth, 1972),[5] these were allegedly no more than marginal (Sengupta, 1971).[6] Starting from the early 1950s, disparity of per capita incomes between East and West Pakistan had been widening, however. While per capita income in East Pakistan rose by 0.7 per cent a year, the rate of increase in West Pakistan was 2 per cent, nearly three times higher than that in East Pakistan (Rao, 1972). This is evident from Table 1, which summarises per capita income in Pakistan during 1947–70.

**Table 1:** Per capita income in East and West Pakistan
(1959–60 prices, in Rupees)

| | **1949–50** | **1959–60** | **1969–70** |
|---|---|---|---|
| **Pakistan** | 311 | 318 | 424 |
| **West Pakistan** | 338 | 366 | 537 |
| **East Pakistan** | 287 | 278 | 331 |
| **East–West gap** | 51 | 88 | 206 |

Source: Third Five Year Plan of Pakistan, p. 11, and Report of the Panel of Economists on the Fourth Year Plan (1970–75), p. 132.

The two wings diverged significantly in economic outcomes over the years, arguably owing to deliberate pro-West and anti-East wing policy adopted by the central government of Pakistan (Huq, 1963; GoP, 1970; Falcon and Stern, 1971; Mason et al., 1971).[7] For instance, despite having 60% of the population, East Pakistan's share of central government development expenditure was as low as 20% during 1950–51 to 1954–55, only to peak at 36% during the third Five Year Plan period i.e. 1965–66 to 1969–70. In addition to unequal allocation of central government funds, inequality arose in provincial budgets following the asymmetric fiscal rule of the Centre. To aid the process of industrialisation in the Western wing, the central government systematically transferred visible as well as invisible resources away from the East to the West. Three particular mechanisms were adopted to facilitate such transfers. First, transfer occurred

[5] For example, per capita income in West Pakistan was 17% higher than that of East Pakistan in 1949–50.

[6] This is also acknowledged in the first five-year plan, 1955–59.

[7] Hasan (1998) argues that some of the observed differences are due to comparative advantage of West Pakistan over the East. But he also admits that part of the disparity in average income across the regions was a result of favourable economic policies and distribution of resources toward West Pakistan, particularly in the 1950s.

through inter-regional trade: the West wing exported to the East under a protective trade regime, at a higher than international price. Second, the East wing was allocated a smaller fraction of the total foreign aid received. Third, to support the process of industrialisation in West Pakistan, agricultural surplus (e.g. foreign exchange earned through agricultural exports by the East) was transferred to industry thereby masking the transfer of economic resources from the East to the West. In addition, by means of a complex system of taxes, the central government extracted from East Pakistan more than it injected income into it through expenditures (Feldman, 1971). According to one estimate, the resulting transfer was worth $2.6 billion (Rahman, 1968). These allegations are also supported by plan allocations for various years.

Widespread inequality caused much strife between the regions and drove popular movements in the early 1960s. Regional income inequality aside, new disparities emerged in other outcomes such as distribution of jobs in central government offices (Rahman, 1968). Therefore, when the Constitution of Pakistan was finally enacted in March, 1962, it made binding on the government to remove inter- and intra-provincial disparities in per capita income. The first finance commission was set up, consisting of members from both wings. After this abortive commission, only sales tax was returned to the provinces. The Centre retained the largest share of income and company taxes as well as export and import duties. The allocation of foreign exchange earnings, foreign aid and above all, the total resources of the nation remained under its purview throughout. Subsequently, regional inequality in the distribution of incomes and various market opportunities persisted throughout the sixties. It is in the context of such economic divide that we are interested in studying the regional distribution of educational inputs and outputs in undivided Pakistan. Before elaborating on the supply side of the education sector, however, the next section describes the educational profiles of East and West Pakistan, and the educational policies that shaped schooling outcomes during 1947–71.

# III. Overview of education policies and schooling outcomes in East and West Pakistan

The evolution of education policy and planning in Pakistan can be traced in various national education commissions and five-yearly plan documents. Following the Pakistan Education Conference held in 1947, the policy of Universal Primary Education (UPE) was adopted in principle, and subsequently implemented by all the provinces (Huq, 1954). Provincial and central governments in Pakistan sketched out a detailed plan to construct schools and recruit teachers to attract more children to schools in post-1947 years. In the first seven and half years of the 'One Unit' era, resource allocation in the education sector was largely based on policies adopted by the central government. The educational planning was guided by the '6-Year National Plan for Educational Development (1952)'.

Educational planning in post-1955 years acquired a new dimension when development started on a planned basis, following various five-yearly plan documents.[8] Each plan dealt with development expenditure only i.e. all expenses on construction, initiating specialised programs, building library and other physical facilities and other resources needed to launch new development. The recurrent expenses such as teacher salary and maintenance were non-developmental and were borne by the respective provincial government from its own revenue resources (Curle, 1966).

The overall objectives of all the plans were more or less similar. They all emphasised the importance of a wider coverage and a higher quality of education. The First Five Year plan proposed to spend Rupees 58.1 crores as public expenditure on education. Three objectives of the plan document were: (*i*) improvement of educational quality at all levels, (*ii*) expansion of educational facilities and (*iii*) opening of new schools in backward areas. Recognising that only 43% of the school-age children were in primary schools, the plan aimed at raising this to 60% by 1960. In reality, however, no improvement in quality occurred during the plan period (Akthar, 1971). Before the end of the first plan period, the National Education Committee of 1958 submitted its re-

[8] This period also benefited from the detailed reviews of the education sector and suggestions for development made by two National Education Commissions, the 1959 Sharif Commission and the 1964 Hamdur Rahman Commission. An additional commission, headed by Nur Khan, submitted its report in 1969. However, this affected educational policies only I post-1971 years and hence is irrelevant for the period under study here.

port. Among others, the committee proposed to achieve compulsory education for children aged 6–11 years.

The second plan similarly recognised universal literacy as the most important policy target. Compared to the earlier plan, however, it allocated five times more funds. But the gross primary enrolment rate still stood at 45 per cent by the end of the plan period. The Third Five Year Plan aimed to raise this further to 70 per cent by 1970 (GoP, 1965). To achieve this target, the government planned construction of 4,000 new schools in East Pakistan against a total of 42,500 in West Pakistan.[9] Nonetheless, the third plan's achievements regarding physical as well as financial targets showed a substantial shortfall. In primary education, only 33% of the target total number of primary schools was constructed. Similarly, the total increase in school enrolment constituted only 55% of the plan target.

Nonetheless, considerable growth in gross school enrolment rates ensued nationwide following the aforesaid expansionary education policies. Historically, East Pakistan enjoyed a higher rate of gross enrolment in primary and secondary education compared to West Pakistan. Such regional differentials in the demand for schooling primarily reflected the difference in demographic composition of East and West Pakistan.[10] In 1947, 60 per cent of Pakistanis resided in the Eastern wing and, so, accounted for the majority of the school age population at the time of independence. Total population in East Pakistan grew at a higher rate in subsequent years as seen from Table 2.[11] The overall growth in population was mirrored by the growth in the underlying school age population. Table 3 compiles data on the provincial distribution of school age population i.e. children aged 5–14 years and 6–11 years. This clearly demonstrates that East Pakistan had the highest share of primary and secondary school age population.

[9] See GoP (1965), p. 216.

[10] School-age population is a primary demand-side determinant of growth in school infrastructure. Once it reaches a stabilisation stage, growth rates in schools also converge towards zero. Any new expenditure then takes the form of recurrent expenditure.

[11] Relative growth rate, however, was higher in West Pakistan from 1960-65 onwards.

**Table 2:** Population growth rates in East and West Pakistan, 1950–75

| Period | EP | WP |
|---|---|---|
| 1950–1955 | 1.97 | 1.96 |
| 1955–1960 | 2.25 | 2.18 |
| 1960–1965 | 2.51 | 2.32 |
| 1965–1970 | 2.56 | 2.44 |
| 1970–1975 | 2.57 | 2.55 |

Note: Percentage figures are reported. *Source*: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, *World Population Prospects: The 2002 Revision* and *World Urbanisation Prospects: The 2001 Revision*, http://esa.un.org/unpp

**Table 3:** Trends in total and school age population in East and West Pakistan, 1950–75

| Year | Total population, in 000 | | School age population | | | |
|---|---|---|---|---|---|---|
| | | | Population aged 5–14, in 000 | | Population aged 6–11, in 000 | |
| | EP | WP | EP | WP | EP | WP |
| 1950 | 41,783 | 39,659 | 9,603 (23.0) | 9,078 (22.9) | 5,873 (14.1) | 5,513 (13.9) |
| 1955 | 46,295 | 43,737 | 10,467 (22.6) | 9,924 (22.7) | 6,325 (13.7) | 6,042 (13.8) |
| 1960 | 51,785 | 48,767 | 12,696 (24.5) | 11,549 (23.7) | 8,000 (15.4) | 7,158 (14.7) |
| 1965 | 58,493 | 54,762 | 15,587 (26.6) | 13,603 (24.8) | 9,674 (16.5) | 8,405 (15.3) |
| 1970 | 66,292 | 61,840 | 18,046 (27.2) | 15,605 (25.2) | 11,151 (16.8) | 9,601 (15.5) |
| 1975 | 75,171 | 70,275 | 20,595 (27.4) | 17,758 (25.3) | 12,674 (16.9) | 10,906 (15.5) |

Note: Figures in parenthesis indicate school-age population as percentage of total population. Reported figures correspond to median variant.[12] *Source*: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, *World Population Prospects: The 2002 Revision* and *World Urbanisation Prospects: The 2001 Revision*, http://esa.un.org/unpp

[12] Fertility in medium-fertility countries is assumed to decline following a path derived from models of fertility decline established by the United Nations Population Division on the basis of the past experience of all countries with declining fertility during 1950–2000.

Given this demographic difference between East and West Pakistan, it is unsurprising that primary and secondary school enrolment was higher in East than in West Pakistan. Analysis of data on West Pakistan reveals a higher growth in gross enrolment over time. In 1948, a total of 2,021,702 children were enrolled in primary school in contrast to a mere 544,360 in the West. By 1969, total primary enrolment in East Pakistan increased to 6,564,535 thereby yielding an average of 10.7 per cent annual growth rate in primary enrolment. In contrast, total primary enrolment increased at an average annual rate of 22.9 per cent, leading to a total of 3,166,799 children in primary school in West Pakistan by 1969. Clearly, for each year, the East had a higher total of children enrolled in school compared to the West. Consequently, the East–West gap in enrolment persisted through 1947–1971 although it narrowed somewhat due to greater relative growth in primary enrolment in West Pakistan in later years.

**Table 4:** Estimates of survival rates in primary school in selected Pakistani provinces, 1947–50

| | Cohort year | Cohort size | % retained a year later | % retained two years later |
|---|---|---|---|---|
| **East Pakistan** | 1947–48 | 1,581,820 | 32.75 | 20.84 |
| | 1948–49 | 1,608,725 | 30.49 | 20.10 |
| | 1949–50 | 1,434,077 | 35.14 | 23.25 |
| **Punjab** | 1947–48 | 103,067 | 65.72 | 57.75 |
| | 1948–49 | 115,087 | 73.05 | 68.80 |
| | 1949–50 | 126,018 | 80.75 | – |
| **Sind** | 1947–48 | 387 | 38.75 | 26.35 |
| | 1948–49 | 337 | 55.19 | 47.74 |
| | 1949–50 | 278 | 64.74 | – |
| **NWFP** | 1947–48 | 268 | 39.55 | 35.44 |
| | 1948–49 | 267 | 37.45 | 28.46 |
| | 1949–50 | 205 | 65.36 | – |

Source: The above figures were estimated using data on grade and year specific total student enrolment, reported in Huq (1954), p. 148.

Mere analysis of quantitative expansion of the education sector is not so informative if there remain systematic differences in educational attainment across the regions. Any comparison of gross enrolment data must be supplemented by information on dropout rate to ascertain the actual extent of school participation. As a matter of fact, accounting for the rate of retention, East Pakistan had no initial advantage in primary education. Despite a greater fraction of the school age population, actual school completion was much lower in East Pakistan than the West. Table 4 presents data on survival rates in primary school during 1947–50 for selected Pakistani provinces. The incidence of drop out was highest (68.25%) in East Pakistan at the time of independence and remained so in the consecutive years. On the other hand, not only was retention rate higher in West Pakistan in 1947, it was also improving further over time.

Regional inequality in survival rates in primary school further worsened in later years. Only 40% of the students who enrolled in grade one survived to grade two in East Pakistan during the 1960s (Curle, 1966) while 20% survived up to grade five (GoP, 1965). On the other hand, as much as 38%–50% were retained in grade five in West Pakistan (GoP, 1966b).[13] This meant that despite a smaller enrolment rate in primary education, the West had a larger population of students in grade five. In sum, primary schools in the East had much higher dropout rate so that comparison of gross primary enrolment data vastly overstates the true extent of school participation and attainment relative to West Pakistan. Since primary education is an input to post-primary education, it is unsurprising to find similar inequalities in secondary and higher education. Participation at higher levels of education in East Pakistan was dismal. Table 5 provides data on total number of graduates in the two wings. During this period, East Pakistan experienced a decline in the number of graduates and postgraduates. The Western unit, on the other hand, not only had a head-start in terms of total number of graduates and postgraduates, it registered 21.3% and 68.6% growth in these numbers respectively.

[13] This is consistent with higher incidence of child labour in East Pakistan. According to Census 1961, 38.2% of children aged 10-14 years were reported in civilian labour force in East Pakistan compared to 23.3% in West Pakistan (Haroon and Jan, 1964).

**Table 5:** Number of graduates and postgraduates in Pakistan, 1951–1961

| | Graduates | | | Postgraduates | | |
|---|---|---|---|---|---|---|
| | **1951** | **1961** | **Change** | **1951** | **1961** | **Change** |
| **Pakistan** | 86,000 | 82,000 | –4.6 | 23,000 | 31,000 | 39.6 |
| **East Pakistan** | 41,000 | 28,000 | –32.3 | 8,000 | 7,000 | –12.0 |
| **West Pakistan** | 45,000 | 54,000 | 21.3 | 14,000 | 24,000 | 68.6 |

Source: Adapted from Akther (1963).

The regional difference in school enrolment rates in the united Pakistan was matched by a similar difference in gains in literacy rate. The poor state of primary and post-primary education in East Pakistan is consistent with the overall pattern of literacy. Whilst it had a larger proportion of literate population, this did not grow much over the years. This is evident from Table 6. The data show greater improvement in literacy levels in West Pakistan. Whilst East Pakistan retained its edge at the end of the second census, the gain in the total number of literate population was only 1.1 percentage points during the intercensal period, compared to 6.8 percentage points in West Pakistan.

**Table 6:** Literacy rates in Pakistan (for population aged 5 years and older), 1951–1961

| | **1951** | **1961** |
|---|---|---|
| **Pakistan** | 14.0 | 17.5 |
| **East Pakistan** | 18.8 | 19.9 |
| **West Pakistan** | 7.6 | 14.4 |

Note: The literacy data for Census 1951 was adjusted for intercensal differences in the definition of literacy. For details, see Akther (1963).

Official data as reported in Table 6 overstates actual literacy rates for two reasons. Firstly, overall years of schooling attained among the five years old and older population was much lower when compared to West Pakistan. Literacy was defined in terms of the ability to read and write. According to the 1961 Census report, however, 14% of these individuals had no formal education and hence were unlikely to have attained functional literacy. The East–West disparity in overall educational attainment is illustrated in Table 7. Secondly, owing to a wider age bracket, the official figures contained large number of children who eventually dropped out of primary school. For these children, the gains in literacy due to school attendance were likely to be short lived. This was

particularly the case for East Pakistan where the vast majority of the children dropped out after grade 1. Therefore, an objective comparison of literacy rates requires exclusion of data on these two groups of individuals. A comparative analysis of functional literacy rate among individuals aged 10 years and older confirms this apprehension.[14] The revised figures yield a literacy rate of 10.1% for West Pakistan compared to only 7.8% for its Eastern counterpart (Akther, 1963). The literacy advantage of East Pakistan as seen from published Census data was therefore primarily driven by the fact that the province hosted a larger number of (*i*) individuals with very low educational attainment and (*ii*) primary school–going population.

**Table 7:** Percentage distribution of (self-reported) literates by educational level, 1961

| | East Pakistan | West Pakistan |
|---|---|---|
| **No Education** | 15.8 | 11.6 |
| **Primary Education** | 63.5 | 47.1 |
| **Secondary Education** | 16.9 | 29.9 |
| **Matriculation** | 2.8 | 9.0 |
| **Intermediate** | 0.6 | 1.9 |
| **Graduate** | 0.4 | 0.5 |

Source: Population Census of Pakistan, 1961, Census Bulletin No. 4, Literacy and Education (1962).

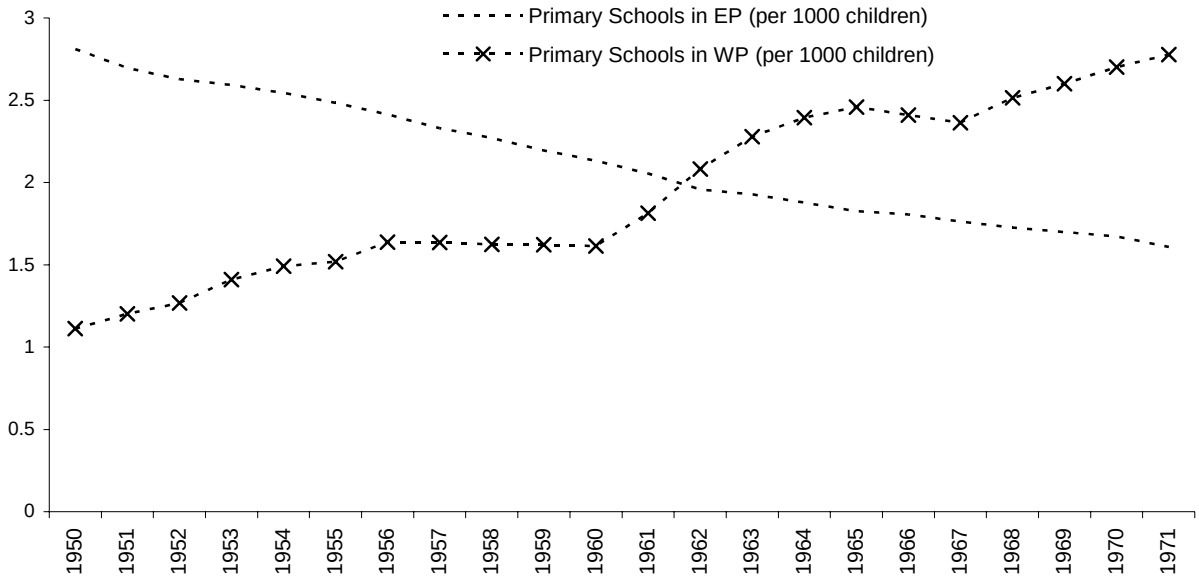
To summarize, at all levels other than primary education, the Western province had a numerical advantage over East Pakistan at the time of independence which widened in later years. Moreover, once disparity in primary school dropouts was taken in account, the Eastern wing was disadvantaged at all levels of education. East Pakistan's educational backwardness was also conspicuous when assessed on the basis of growth in official literacy and the level of functional literacy rates. Jilani (1964) speculated that such disparities in educational outcomes could have been driven by differences in the growth of educational facilities. This possibility is explored in the next section. We discuss the inter-regional distribution of total number of schools and teachers in Pakistan, for the most part focusing on primary and secondary education.

[14] Functional literates are defined as those who report themselves as literates and have completed at least five years of schooling.

# IV. School availability in East and West Pakistan

Given the objective of UPE, Pakistan saw a sizable growth in the total number of primary schools in the post-1947 years. However, the distribution of the new schools seems to have compromised the principle of regional equality. Simple descriptive analysis of time series data suggests that the total availability of schools shrunk in East Pakistan in post-1947 years, both on an absolute and relative scale.

**Figure 1:** Primary school availability in East and West Pakistan, 1950–1971




Note: Annual school age population (aged 5–14 years) figures have been projected using published data on annual growth rate from to for the respective provinces. Data on total number of schools was obtained from Fifty years of Pakistan in statistics, Government of Pakistan (1998).

Figure 1 plots the number of primary schools per 1000 children in East and West Pakistan. The initial educational endowments of East and West Pakistan were somewhat consistent with regional difference in demographics: East Pakistan had more (in absolute terms) primary and secondary schools than West Pakistan in 1947. Clearly, by 1971, East Pakistan had fewer primary schools than it inherited in 1948. While school infrastructure was on a decline in the East, the situation improved remarkably in West Pakistan during post 1947 years. This could be the result of an egalitarian social planning aimed at closing the absolute deficit in (population-adjusted) school availability facing the West wing: there was less than one school in West Pakistan in 1947 compared to

three primary schools in East Pakistan, per one thousand school age children. In the first decade after independence, primary schools in West Pakistan increased from 8,357 in 1948 to 16,474 in 1958. The school availability in West Pakistan doubled in the primary education sector.[15]

This trend continued even in the second decade despite the constitutional declaration in 1962 to eliminate inter-regional disparities as part of the national economic policy.[16] By the end of the 1960s, West Pakistan not only equalled the East in primary education infrastructure, it also surpassed the Eastern province by a big margin. Putting together the experiences of the two provinces we find that, while in West Pakistan the total number of primary schools trebled by the 1960s, it diminished in the East. Given the fact that East Pakistan had the majority of school age children that grew at a relatively higher rate, an objective social planner would have ensured at least a moderate growth in educational facilities to keep up with the growing demand. The observed decline in primary schools per thousand school age children following the stagnation in the absolute number of primary schools therefore poses a puzzle. At the secondary level, the regional distribution of schools seems to follow a similar pattern although the divide is not as striking as that observed in primary education.

The evolution of the resulting disparity in educational infrastructure in primary and secondary sector can be better illustrated by a simple 'index of disparity' in total number of schools for the period 1947–71. The index is defined as:

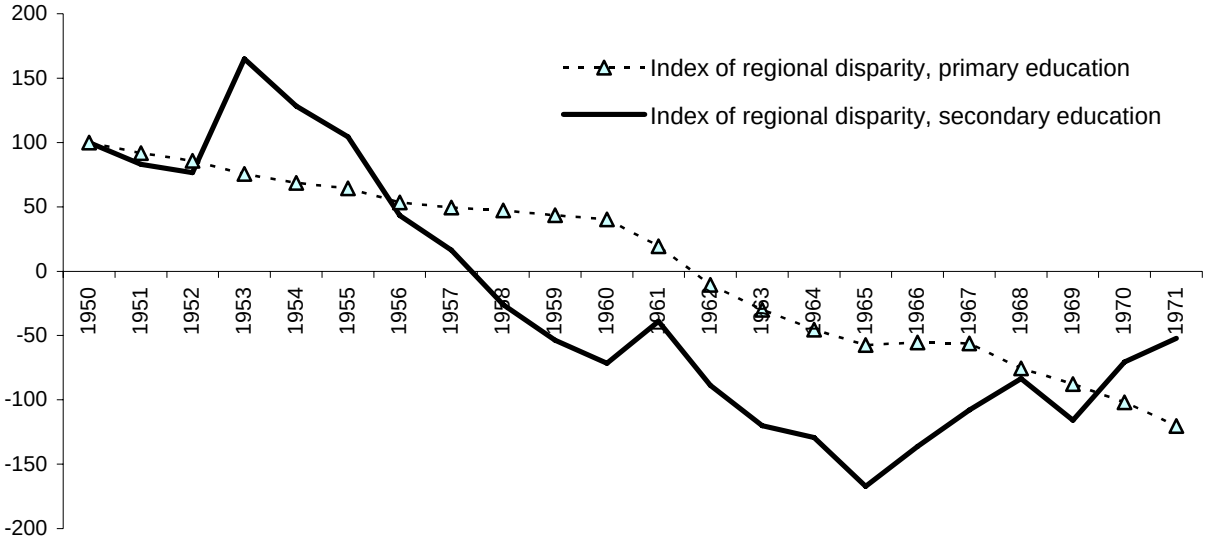
$$[\text{Index of Regional Disparity}]_j = [\text{Disparity Ratio} - 1]*100,$$

where, 'Disparity ratio' = (Total number of schools in East Pakistan)/ (Total number of schools in West Pakistan); j = primary, secondary. Thus, it calculates the annual percentage change in the disparity ratio relative to that in 1947–48 i.e. the period 1947–48 is treated as the base year. Figure 2 plots values of the 'index of disparity' for primary and secondary education using population-adjusted data. The zero axis is the axis of parity/equality where values above/below it indicates the relative regional abundance/deprivation.

[15] Interestingly, it is also the decade when disparity in per capita income between East and West Pakistan did not grow much.

[16] This contrast between policy declaration and implementation is also acknowledged by West Pakistani economists (GoP, 1970; p 162).

**Figure 2:** Regional disparity in primary and secondary school availability, 1950–1971




Note: The indices are constructed using population adjusted total number of schools.

From Figure 2, it is clear that, both in primary and secondary education, the extent of disparity widened over time. Disparity in the total number of primary schools deepened through 1971. Until 1960, it was driven by differences in the growth rates of the total number of primary schools between East and the West. Similarly, due to a favourable growth rate of secondary schools, the corresponding disparity index converged towards zero by 1956 i.e. regional gaps in the number of secondary schools across the regions disappeared. By 1960, East and West Pakistan converged in the total number of primary as well. In post 1960 years (i.e. second five-year plan period), 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 1956–1963), although the absolute advantage over East Pakistan prevailed throughout 1960s.

Looking at the supply of teachers, a similar story emerges. At the time of separation from India, East Pakistan was endowed with a relatively larger stock of teachers to support the existing primary schools. However, the supply of teachers failed to keep up with the increasing demand. The negative growth in the total number of primary schools and slow growth in the total number of teachers in primary and secondary schools in East Pakistan meant that these schools, and classes within them, became increasingly overcrowded. Furthermore, inter-regional difference in the growth in the total number of teachers led to inter-regional disparity in the student–teacher ratio (STR).

**Table 8:** School availability, STR and school size during 1948–70

| | | Number of schools | | | | School Size | | | | STR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | East Pakistan | | West Pakistan | | East Pakistan | | West Pakistan | | East Pakistan | | West Pakistan | |
| | | Schools | Index of growth | Schools | Index of Growth | School Size | Index of growth | School Size | Index of Growth | STR | Index of growth | STR | Index of growth |
| **Primary Education** | **1948** | 29,633 | 100 | 8,413 | 100 | 68.22 | 100 | 64.7 | 100 | 26.73 | 100 | 30.55 | 100 |
| | **1955** | 26,000 | 87.74 | 14,162 | 168.33 | 100.17 | 146.83 | 89.97 | 139.05 | 36.44 | 136.31 | 35.91 | 117.59 |
| | **1960** | 26,583 | 89.71 | 17,901 | 212.78 | 119.64 | 175.37 | 86.47 | 133.65 | 40.53 | 151.64 | 34.51 | 113.01 |
| | **1965** | 27,474 | 92.71 | 32,589 | 387.36 | 147.2 | 215.77 | 77.7 | 120.1 | 42.78 | 160.05 | 33.34 | 109.16 |
| | **1970*** | 28,908 | 97.55 | 38,900 | 462.38 | 227.08 | 332.87 | 81.41 | 125.82 | 59.31 | 221.89 | 35.99 | 117.83 |
| **Secondary Education** | **1948** | 3,481 | 100 | 2,598 | 100 | 151.11 | 100 | 195.55 | 100 | 21.59 | 100 | 26.95 | 100 |
| | **1955** | 3,079 | 88.5 | 2,264 | 87.14 | 148.52 | 98.29 | 319.27 | 163.3 | 20.52 | 95.03 | 30.96 | 114.9 |
| | **1960** | 3,053 | 87.7 | 3,043 | 117.1 | 173.76 | 115 | 299.83 | 153.3 | 22.51 | 104.2 | 29.1 | 108 |
| | **1965** | 3,834 | 110 | 4,323 | 166.4 | 221.31 | 146.5 | 316.77 | 162 | 25.2 | 116.7 | 27.48 | 102 |
| | **1970** | 5,694 | 164 | 5,600 | 215.6 | 256.41 | 169.7 | 220.71 | 112.9 | 28.42 | 131.6 | 18.45 | 68.45 |

**Note**: Raw data is from 'Fifty years of Pakistan in statistics'.

*Figures refer to the year 1969. This is because, data on total student enrolment in East Pakistan was unavailable for the year 1970. Figure for the year 1971 was available but not used here for the unusually low enrolment in school in that year, which largely reflected the adverse effect of civil war and political turmoil in the country.

Table 8 illustrates the evolution of school size and STR in secondary schools in East and West Pakistan since 1947–48 by levels of education. By 1970 primary class size had increased by 61 per cent in East Pakistan against 36 per cent in West Pakistan (compared to the 1947–48 benchmark figures). Similarly, as is seen from the Table, inter-regional differences in growth in the number of schools created disparity in school size. Schools in East and West Pakistan were almost of the same size in 1948. But they soon diverged, particularly after the 1950s. As a result, schools became excessively overcrowded in East Pakistan compared to the West.

Similarly, East Pakistan also lagged behind its Western counterpart in the supply of secondary school teachers. At the end of the plan year 1964–65, West Pakistan gained a total of 2,410 secondary teachers in the same year as opposed to 1,125 by East Pakistan. Similar gaps remained between the two provinces in the targeted number of primary and secondary teachers as set in the Third Five Year Plan, 1965–70.[17] Supply of secondary teachers did not keep pace with increases in enrolment. Therefore, although East Pakistan initially had a favourable STR, it was matched by West Pakistan via a relatively higher growth of total number of teachers in West Pakistan.[18] By 1970, the Eastern province had a class size which was 14 percent higher than that of the pre-1947 level whereas in West Pakistan, it was 34 percent lower.

To sum up, despite starting with favourable educational endowments, East Pakistan ended up with a lesser number of primary schools and larger STR in the primary sector. Similarly, in spite of a superior initial endowment of secondary schools, it received a smaller total number of teachers leading to a higher STR by 1970. On the other hand, despite being endowed with poorer educational infrastructure in primary and secondary education (e.g. smaller total number of schools, relatively higher STR), West Pakistan surpassed or matched the East in number of schools, and reduced the STR.[19]

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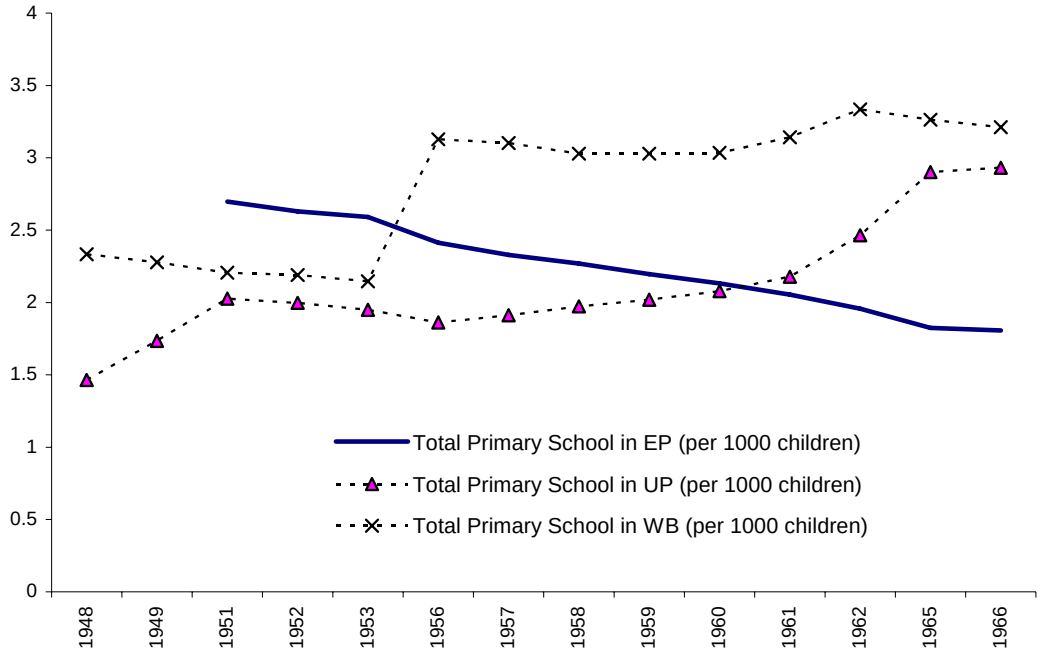
[17] For details, see GoP (1968), pp. 189–197.

[18] Early researchers such as Curle (1966) also confirm the initially smaller STR in secondary schools in East Pakistan (35) than that for West Pakistan. However, they ignored the gradual changes in STR across regions over time.

[19] In the absence of any single measure of school quality used in the earlier debates (and literature) on school quality, we have restricted our measure of quality to that of student-teacher ratio (STR) and quantity to school size. In the existing literature on school quality, STR is the most frequently used measure of school quality on which we have data both for East Pakistan and Pakistan. The alternative measures could have

**Figure 3:** Primary school availability in East Pakistan, West Bengal and Uttar Pradesh, 1948–1966




**Notes:** Data on the total number of primary schools in the Indian provinces are from **'**Education in India', 1994, Central Publication Branch, Government of India (GoI). School age population data for the Indian states have been projected using state-wise annual population data from 'Report on the Population Projections Worked Out Under the Guidance of the Expert Committee Set Up by the Planning Commission Under the Chairmanship of the Registrar General, India', Office of the Registrar General, Ministry of Home Affairs, Government of India, 1968.

The above findings can be queried on the premise that provincial disparity under a federal regime is unsurprising if one looks at similar regimes elsewhere in the region i.e. South Asia. To this end, we use regional education data from India as our benchmark as it provides a powerful illustration of the extent of disparity experienced by East Pakistan. Figure 3 graphs trends in primary school availability in East Pakistan, West Bengal and Uttar Pradesh (UP) during 1948–1966.[20] In 1947, West Bengal had a school structure and socio-economic background of students similar to those in East Pakistan.[21] UP was one of the most educationally backward states in India. As can be seen from the Figure, East Pakistan was much

been per capita expenditure on student by school and teacher salary but there is no complete data series as of yet.

[20] Comparison is restricted for this period because of incomplete series for the Indian states.

[21] It is similar in terms of the proportion of schools in public ownership and/or finance.

ahead of the Indian states in the early years i.e. 1948–1952. However, throughout 1948–66, the Pakistani province experienced a decline in school supply while the Indian counterparts enjoyed a steady growth. Consequently, by 1959, East Pakistan fell behind West Bengal while UP surpassed it by 1961. Rates of growth in the teaching force followed the same pattern in these regions revealing relatively overcrowded schools and increased class size in East Pakistan. Hence, even by a broader regional standard, the extent of decline of school infrastructure in East Pakistan is striking. This comparison, as will be seen later, also offers important insights into the process that gave rise to stagnation in schooling conditions in East Pakistan.

Lastly, one may argue that if educational inequalities in undivided Pakistan were systematic, they should have prevailed at all levels of education. To assess this claim, Table 9 summarises data on total number of various institutions at the post-secondary level in East and West Pakistan for the period 1954–61. Apart from two categories, Arts/Science colleges and teacher training institutes, West Pakistan had an absolute advantage in the availability of higher education facilities. Given the initial backwardness of the Eastern wing, one would have expected some equalisation in regional provision in the later years, for instance, through greater allocation of new units to East Pakistan. Nonetheless, data for the year 1961 reveals further divergence in higher education infrastructure instead. Altogether, the status quo in primary and post-primary education therefore confirms the conjecture of systematic educational inequalities between East and West Pakistan at almost all levels of education.

**Table 9:** Number of institutions and students in East and West Pakistan in 1954 and 1961

| | East Pakistan | | | | West Pakistan | | | | East–West Gap | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1953–54 | | 1960–61 | | 1953–54 | | 1960–61 | | 1953–54 | | 1960–61 | |
| | No. of Institutions | No. of Students | No. of Institutions | No. of Students | No. of Institutions | No. of Students | No. of Institutions | No. of Students | No. of Institutions | No. of Students | No. of Institutions | No. of Students |
| **Arts and Science College** | 70 | 22,936 | 81 | 47,843 | 58 | | 131 | 70,580 | 12 | –9,384 | –50 | –22,737 |
| **Medical** | 1 | 751 | 3 | 1,130 | 6 | | 9 | 3,792 | –5 | –1,604 | –6 | –2,662 |
| **Engineering** | 2 | 689 | 2s | 921 | 2 | | 4 | 2,070 | 0 | –893 | –2 | –1,149 |
| **Commerce** | 1 | 341 | 2 | 605 | 3 | | 4 | 1,183 | –2 | –539 | –2 | –578 |
| **Agriculture** | 2 | 156 | 2 | 486 | 3 | | 4 | 1,916 | –1 | –543 | –2 | –1,430 |
| **Teacher Training Institute** | 73 | 3,898 | 47* | 3,571 | 39 | 32,320 | 49* | 5,762 | 34 | –21 | –2 | –2,191 |
| **University** | 2 | 3,093 | 2 | 5,575 | 4 | 2,355 | 4 | 4,792 | –2 | 1,010 | –2 | 783 |
| | | | | | | 1,582 | | | | | | |
| | | | | | | 880 | | | | | | |
| | | | | | | 699 | | | | | | |

Note: The table is adapted from Jilani (1964), p. 88. * indicates that data is for 1959

# V Inter-regional disparity in education: 'Discrimination' or a fallacy of data?

From the preceding discussion, the decline in primary schooling infrastructure in East Pakistan is evident even after normalizing for the underlying population: regional difference in the growth of educational infrastructure was not driven by regional differences in the growth rate and level of school age population. While exact structural reasons for this singular decline in primary schools during the post-1947 years are unknown, some researchers (e.g. Chowdhuri, 1972) have attributed it to 'a deliberate policy of neglect'. However, the inter-regional differences in educational facilities could as well be driven by other factors on the supply side. What appears to be a result of 'discrimination' is likely to be confounded by unaccounted differences in various characteristics of the comparing regions such as heterogeneity of the education sector, provincial educational policy and so on. We consider these alternative explanations below.

### i. Difference in school types

Regional differences in the growth of total number of schools could be attributed to (*i*) relative share of the private education sector, (*ii*) presence of unrecognised private schools, and (*iii*) operation of schools in multiple shifts. The declining growth of private schools and/or publicly funded private (henceforth, aided) schools over their public counterpart in East Pakistan could explain the decline in primary school availability. If one region experiences greater growth of private schools, the total number of schools may differ despite an equal number of public and aided schools. If true, the root cause of educational disparity lies in the differential responses by the private education sector in the study regions.

However, in Pakistan, the majority of the schools were either publicly owned and managed, or publicly financed. For example, in 1949–50, of all the primary schools in East Pakistan, (26%) were aided and another 3% were private schools. In 1955–56, the share of aided schools was 14% and that of private schools was 3%. Hence, it appears that government indeed had the greatest control over supply of secondary schools and expenditure patterns within the school. Analysis of school data by management types indicates that such stagnation is not caused by a steep decline in private schools offsetting or masking any significant growth in public or publicly aided schools in East Pakistan.

Table 10 provides data on public share in the total number of schools in West Pakistan and various provinces within West Pakistan for the year 1963–64. Apart from Khairpur, in all the provinces primary schools were mostly in public management. Hence, differential growth in primary schools in West Pakistan cannot be due to a greater share of private schools: growth of schools was mostly financed by public funds. In addition, the observed growth of private aided schools in West Pakistan could not be assumed to be exogenous to government policies.[22] There is anecdotal evidence suggesting that schools under private management were accorded recognition liberally by the government in West Pakistan. This led to indiscriminate expansion of schools in West Pakistan during the 1950s (GoP, 1959). Through a combination of liberal recognition and government provision of financial aid, private and/or aided schools were sustained and their growth encouraged in West Pakistan. Even if private and aided schools are considered together in a single group, their numbers do not account for differential growth in the overall school numbers in the comparing regions.

**Table 10:** Distribution of primary schools by types in West Pakistan, 1963–64

| | % of public schools | % of municipality schools | % of aided schools | % of private schools | Total number of schools |
|---|---|---|---|---|---|
| **Peshwar** | 99 | – | – | 1 | 3,170 |
| **Rawalpindi** | 95 | 4 | 1 | 1 | 7,456 |
| **Lahore** | 89 | 7 | 4 | 1 | 10,381 |
| **Hydrabad** | 97 | – | 2 | – | 8,004 |
| **Quetta** | 100 | – | – | – | 1,005 |
| **Khairpur** | 43 | – | 16 | 40 | 934 |
| **West Pakistan** | 93 | 3 | 3 | 2 | 30,950 |

**Source:** Education Statistics for West Pakistan 1963–64, GoP (1966*a*).

[22] Greater government allocations led to larger social-overhead capital in the West and further facilitated (and justified) a private investment explosion (Ahmed, 1972). This means that much of the growth in private schooling in West Pakistan could be attributed to relatively greater growth in public investment in the region.

Besides registered private schools, one could explain the decline of primary schools in terms of the share of *unrecognised private schools*.[23] To the extent that East Pakistan experienced relatively greater growth of such unrecognised schools, the inter-regional disparity can be arguably spurious. Published aggregate data on the number of unrecognised institutions, however, indicate that these were very small in numbers and had been decreasing since 1947. For example, East Pakistan had a total number of 907 unrecognised educational institutions in 1947–48 (GoEP, 1956). However, by 1960, the number was down to 211 schools (GoEP, 1965).[24] Therefore, if anything, trends in the total number of unrecognised schools mirror that of recognised schools. In the subsequent years, however, owing to dubious quality, these schools were officially banned by the East Pakistan Registration of Private School Ordinance, 1962 (GoEP, 1966, p. 32).

Lastly, a notable feature of the East Pakistani education system was the presence of double shift schools. While the exact proportion of these schools remains unknown, anecdotal evidence suggests that the majority of the primary schools remained in single shifts in East Pakistan. It is possible that to cope with rising enrolment of students and demand for schooling, a fraction of primary schools in East Pakistan might have switched to double-shifts. Once again, the share of these schools (that switched to double shift in post-1947 years) in the total number of double-shift schools remains unknown. Besides, these double-shift schools mostly operated with a single set of teachers and offered different grades in different shifts.[25] Consequently, this arrangement did not wholly address the problems of oversized classes since it did not fully compensate for missing teachers as this would have required separate sets of teachers to teach separate shifts. On the other hand, all the double-shift schools elsewhere in Pakistan were aided with two sets of teachers. This feature of the education system partly explains relatively lower schooling hours, about 2.5–3.5 hours, in East Pakistan

[23] For example, Kingdon (1996) points out that published educational statistics in India ignore ‘unrecognised’ private schools and include only the ‘recognised’ private schools. She also notes that enrolments in government-funded schools are greatly over-reported in published data.

[24] In addition, these figures included all unrecognised primary, secondary and post-primary schools although an under-estimation of the actual number of these unrecognised institutions cannot be ruled out.

[25] Besides, we do not know how many of the schools in East and West Pakistan were operating in double shift initially in 1947.

compared to the average of 5 hours of schooling observed in West Pakistan. This institutional arrangement, if anything, further lowered school quality in East Pakistan, particularly in the rural areas (Huq, 1954).[26]

### ii. Difference in unit cost

One could argue that in East Pakistan the primary education sector shrunk because further educational expansion on the supply side was no longer desirable; the decline in the number of primary schools and teachers was an outcome of an optimal policy given the prevailing costs of school operation. If so, observed disparity is attributable to relatively higher unit-costs of school operation in East Pakistan. Unit costs could be high either because of (*a*) under-utilisation of the existing capacity, and/or (*b*) higher input price such as teacher pay.[27] In the presence of high costs and overall budgetary constraints facing a region like East Pakistan, a rational response is raising the STR to ensure more intense use of schools instead of building new schools or recruiting new teachers. To be precise, higher unit costs may have contained the growth of primary schools in East Pakistan, whereas schools grew in number in the West because of cheaper inputs such as low salary teacher and less costly construction material.

However, published data on school costs for early years suggest completely the opposite. Schools in East Pakistan were poorly resourced, taught by the lowest paid teachers, and already as crowded as those in West Pakistan in 1948. Indeed, among all provinces of the united Pakistan, East Pakistan had the lowest paid teachers (Owen, 1960). On the other hand, schools in West Pakistan were staffed by better paid teachers. Not only were teachers salaries many times lower in East Pakistan, but they also consumed most (95%) of the educational expenses in primary schools leaving a small amount for other school inputs. In contrast, schools in West Pakistan had a higher proportion of non-teacher expenditure despite teacher pay being six times higher that that in East Pakistan. Table 11 below summarises the situation.

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[26] Colclough and Lewin (1993) discussed various pitfalls of operating schools in double-shifts.

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

**Table 11:** Itemised breakdown of educational cost per pupil in Pakistan (in Rupees), 1952–53

| | Teacher salary | Furniture & equipment | Buildings & repairs | Contin-gencies | Total cost per pupil (in Rupees) |
|---|---|---|---|---|---|
| ***East Pakistan*** | | | | | |
| | 6.70 (95.4) | 0.12 (1.8) | 0.08 (1.1) | 0.10 (1.6) | 7 (100.0) |
| ***West Pakistan*** | | | | | |
| Sind | 36.10 (88.0) | 1.61 (4.0) | – | 3.30 (8.0) | 41 (100.0) |
| Khairpur | 41.30 (84.3) | 1.90 (3.9) | 4.80 (9.8) | 1.00 (2.0) | 49 (100.0) |

Note: Percentages are in parenthesis. The table is adapted from Huq (1954), p. 67.

Thus lower unit cost of primary schools in East Pakistan was maintained by (*a*) paying teachers significantly low salaries (relative to their counterparts in the West) and (*b*) keeping the ratio of teacher–student to a minimum.[28] In addition, if differences in regional prices were taken into account, the unit cost for East Pakistan would be even lower than that reported in Table 11.[29] The situation was not very different for the later years. In the 1960s, starting salaries for teachers in West Pakistan were three times higher than those in East Pakistan and average salaries were about twice as much (Curle, 1966).

Table 12 presents data on primary schools, school size, STR and unit cost in various provinces of West Pakistan in 1963–64. These figures further corroborate our contention. Hence, inter-regional disparity in growth of educational infrastructure cannot be attributed to inter-regional differences in unit cost.

[28] Such poor incentives may have had significant negative impact on educational output.

[29] Real wage of school teachers were lower than that of pre-1947 days (Huq, 1954).

**Table 12:** Number of primary schools, school size, STR and unit cost (in Rupees) in various provinces of West Pakistan, 1963–64

| Provinces | Total number of primary schools | School size | STR | Unit cost |
|---|---|---|---|---|
| **Peshwar** | 2,162 | 77.59 | 41.04 | 25.47 |
| **Rawalpindi** | 5,993 | 84.55 | 36.66 | 35.71 |
| **Lahore** | 8,383 | 70.03 | 31.83 | 49.33 |
| **Hydrabad** | 6,832 | 60.89 | 30.96 | 44.37 |
| **Quetta** | 703 | 48.56 | 24.94 | 60.69 |
| **Khairpur** | 857 | 228.06 | 53.15 | 28.20 |
| **West Pakistan** | 24,930 | 76.50 | 34.78 | 40.57 |

**Source:** Education Statistics for West Pakistan 1963–64, GoP (1966*a*).

### iii. Difference in school quality

The quantitative indicators of educational disparity aside, little is known about regional differences in quality of education in Pakistan. An account of regional disparity in school quality, assessed in terms of grade completion and functional literacy, was provided in section III. However, it is not evident whether such disparity prevailed, in spite of compensatory education policies to boost quality, or whether they simply reflected a lack good quality schools. To be precise, the two provinces could have been endowed with dissimilar quality of educational inputs, compensating for overall differences in the stock of inputs. For example, East Pakistan might have opted against a larger primary education sector, by investing in better maintenance of schools and quality improvement. However, comparison of school quality on the basis of the pay and profile of teachers does not support this hypothesis. Schools in East Pakistan were staffed by disproportionately untrained and poorly paid teachers (Owen, 1960). In 1956 the average salary of a primary teacher was $4.60 (Rupees 22) which later increased to $12 in 1963. However, the salary for untrained teachers remained as low as $6.80 (Rupees 32.5). In contrast, the starting salary of an untrained teacher was three times as high in West Pakistan, and average salaries were about double of those in East Pakistan (Curle, 1966).

Whilst untrained teachers accounted for two-fifths of the teaching staff in primary schools in East Pakistan, almost the opposite was true for the Western province. This is apparent from Table 13. Regional gaps in the total number (and fraction) of trained teachers widened further in later years[30]. This conjecture is corroborated by data on annual gains in trained teachers and enrolment data in teacher training institutes in the comparing regions. For example, at the end of the plan year 1964–65, a total of 4,200 primary teachers were trained in East Pakistan, compared to 10,400 in West Pakistan (GoP, 1968). Analysis of enrolment in teacher training institutes reveals that it declined in East Pakistan during 1953–61 by 8.3% while West Pakistan experienced a 47% increase (see Table 8).

**Table 13:** Untrained teachers as a % of total primary teachers, 1952

| | **% of Teachers without training** |
|---|---|
| **East Pakistan** | 42 |
| **West Pakistan** | 36 |
| – Punjab | 23 |
| – N.W.F.P. | 13 |
| – Baluchistan | 18 |

**Note**: Data for this Table is from Huq (1954), p. 156.

To the extent, the level of pay affects recruitment and retention superior ability teachers, school quality, measured in terms of learning outcomes, is likely to be poor. East Pakistan's educational backwardness, measured in terms of outcomes such as functional literacy and years of school completed, is therefore consistent with its inferior endowment of inputs at the school level, namely low teacher pay and lack of trained teachers.

### iv. Biased central policy or failed provincial policy?

Total 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 was

[30] According to one estimate, 82.8% of all the primary school teachers were trained in West Pakistan by the early 1960s (GoP, 1966).

clearly in contrast to the stagnant schooling conditions in East Pakistan. Given that observed disparity in education cannot be attributed to differences in school age population, the unit-cost, management and quality of schools, we then examine an explanation in terms of state policies and actions that may have adversely affected distribution of economic resources towards East Pakistan. In a federal system of governance, one could view disparity as a joint product of (*a*) the extent of central government control and (*b*) limited scope of the respective provincial government for independent action in educational provisions (Faaland and Parkinson, 1976). These are considered below.

*(a) Bias in central government policy?*

Despite being a federal system, provincial educational developments in Pakistan significantly depended on allocations of central government budgets. The centrally administered areas were located in West Pakistan. In these areas, the federal government also operated as a state government and in that capacity, provided educational facilities at all levels of education. In other areas, the Centre played a passive role by setting different plan allocations to education and development activities. In addition, it influenced provincial developments through differential allocation of central government funds. In this section, therefore, we are interested to examine whether there was any bias in (*i*) the allocation of central budget and (*ii*) plan targets for provincial educational development.

Analysis of budgetary data reveals that East Pakistan singularly received a smaller allocation than the West. These allocations varied between pre- and post-plan periods. In the absence of any five-year plans during 1948–55, the allocation of central government education funds had often been discretionary and overwhelmingly in favour of West Pakistan and therefore, allegedly ‘discriminatory’. For example, East Pakistan’s share of central government development expenditure remained as low as 20% despite having 60% of the population during the said period and generating higher internal revenues. The latter highlights the fact that low development expenditure in East Pakistan was de facto exogenous to the size of its internal budget. This is aspect of East Pakistan’s development finance is further elaborated in Table 14 which provides a breakdown of total government expenditure and revenue during this period. However, the opposite was true for West Pakistan. With the exception of the year 1953, it received public expenditure in excess of annual revenue generated.

**Table 14:** Revenue and expenditure of the government of Pakistan from and in East and West Pakistan (in 000 rupees), 1947–54

| Year | West Pakistan | | | East Pakistan | | |
|---|---|---|---|---|---|---|
| | Revenue | Expenditure | Balance | Revenue | Expenditure | Balance |
| 1947–48 | 145,772 | 240,263 | –94,491 | 57,165 | 47,589 | + 9,576 |
| 1948–49 | 498,717 | 846,457 | –347,740 | 162,311 | 31,949 | + 130,362 |
| 1949–50 | 633,026 | 1,416,583 | –783,557 | 220,793 | 17,634 | + 203,159 |
| 1950–51 | 999,874 | 1,278,851 | –278,977 | 258,503 | 45,195 | + 13,308 |
| 1951–52 | 1,035,432 | 1,649,675 | –614,243 | 350,972 | 1,509 | + 349,463 |
| 1952–53 | 912,967 | 1,319,720 | –406,753 | 254,293 | 249,091 | + 5,202 |
| 1953–54 | 1,040,720 | 979,502 | + 61,218 | 211,551 | 4,835 | + 206,716 |

**Source:** Adapted from Sadeque (1957), Table 3, p. 39.

During the seven years of pre-plan period, the Centre secured excess revenue of Rupees 125.6 crores from East Pakistan over central expenditure. During the same period, the Centre spent an excess of Rupees 234 crores in total in West Pakistan over central revenue received from West Pakistan. Altogether, resources of East Pakistan to the extent of Rupees 125.5 crores were diverted to West Pakistan. In summary, during the pre-plan years, additional expenditure in the Western province was paid by East Pakistan's contribution to the central revenue in excess of what it received from the Centre. Such fiscal favouritism was also mimicked in educational policies of the Centre. A 'Six-year National Plan of Educational Development' was undertaken during 1951–57, under which a total of 1,150 million Rupees were allocated for construction of 24,027 primary and 721 secondary schools (GoP, 1955). However, most of it was allocated to the Western province: during this entire period, the number of primary schools remained stagnant in East Pakistan whereas it went up by at least 5,000 schools in West Pakistan.

In post-1955 years, public expenditure allocations were reformulated on the basis of plan documents. Under the first five-year plan, a total of Rupees 27 crores (central and provincial scheme combined) were allocated to education under the public sector programme in East Pakistan whilst West Pakistan was allocated Rupees 33 crores for the same period. According to one estimate, Central government contribution accounted for Rupees 9 crores of which 94% were allocated to West Pakistan (Sadeque, 1957). In general, the plan envisaged an investment expenditure of Rupees 254

crores in the public sector for East Pakistan while her contribution was set at Rupees 411.22 crores.

Table 15 reviews allocations of central government expenditures between East and West Pakistan. Unequivocally, West Pakistan's share in the central government education budget was at least 30% higher than that of the Eastern province.[31] Unsurprisingly, East Pakistan's share of central government development expenditure only peaked at 36% during the third Five-Year Plan period i.e. 1965–66 to 1969–70 (GoP, 1970). Besides, a comparison of annual data on total and educational expenditure suggests that although by the 1960s, existing regional gaps in expenditure had been somewhat reduced, no such pattern is discernible in the case of educational expenditures. This is despite the constitutional declaration in 1962 to eliminate intra-regional disparities as part of the national economic policy.[32]

Overall, East Pakistan's share of allocation for education in the first and second plan periods was 45% and 47% respectively. But its share of actual expenditure for these plans was only 35% of the total allocated budget, reflecting a shortage of revenue (Curle, 1966). Apart from setting different plan targets for different regions, there were marked differences in actual achievements of these targets, which according to Curle (1969) reflects the interest of the government that implements the plan. He notes:

> ...what is done, as opposed to what is said, or formally planned about education, depends upon the interests of those in high positions in the political and administrative systems.
>
> (Curle, 1969; p. 120)

[31] Most of centre's budget was allocated to post-primary education during the said period.

[32] This contrast between policy declaration and implementation is also acknowledged by West Pakistani economists (GoP, 1970; pp 162).

**Table 15:** Education and training: Breakdown of regional expenditure in East and West Pakistan by sources of finance (in million Rupees)

| | 1960–61 | | | 1961–62 | | | 1962–63 | | | 1963–64 | | | 1964–65 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Centre | Province | Total | Centre | Province | Total | Centre | Province | Total | Centre | Province | Total | Centre | Province | Total |
| **East Pakistan** | | | | | | | | | | | | | | | |
| Primary | – | 2.60 | 2.60 | – | 6.70 | 6.70 | – | 20.00 | 20.00 | – | 20.00 | 20.00 | – | 18.00 | 18.00 |
| Secondary | 0.10 (1.11) | 8.90 | 9.00 | 0.10 (0.88) | 11.30 | 11.40 | 0.40 (1.57) | 25.10 | 25.50 | 0.30 (1.48) | 20.00 | 20.30 | 0.10 (0.52) | 19.00 | 19.10 |
| Others | 5.62 (21.77) | 20.2 | 25.82 | 6.54 (14.99) | 37.10 | 43.64 | 7.88 (10.72) | 65.20 | 73.48 | 8.28 (10.88) | 67.80 | 76.08 | 12.04 (14.16) | 73.00 | 85.05 |
| Total | 5.72 (15.29) | 31.70 | 37.42 | 6.64 (10.75) | 55.10 | 61.74 | 8.28 (6.96) | 110.70 | 118.98 | 8.58 (7.37) | 107.80 | 116.38 | 12.14 (9.94) | 110.00 | 122.14 |
| **West Pakistan** | | | | | | | | | | | | | | | |
| Primary | 0.10 (6.67) | 1.40 | 1.50 | 0.10 (4.55) | 2.10 | 2.20 | 0.90 (19.57) | 3.70 | 4.60 | – | 5.80 | 5.80 | – | 4.70 | 4.70 |
| Secondary | 0.20 (2.90) | 6.70 | 6.90 | 0.40 (2.65) | 14.70 | 15.10 | 1.00 (4.72) | 20.20 | 21.20 | 0.70 (2.60) | 26.20 | 26.90 | 0.40 (1.59) | 24.80 | 25.20 |
| Others | 8.78 (26.46) | 24.40 | 33.18 | 9.80 (21.85) | 35.00 | 44.86 | 11.92 (16.76) | 59.20 | 71.12 | 12.70 (14.58) | 74.4 | 87.10 | 18.24 (17.28) | 87.50 | 105.56 |
| Total | 9.08 (21.84) | 32.5 | 41.58 | 10.36 (16.67) | 51.8 | 62.16 | 13.82 (14.26) | 83.10 | 96.92 | 13.42 (11.20) | 106.40 | 119.80 | 18.64 (13.76) | 117.00 | 135.46 |

Notes: The category others include heads such as teacher education, technical education, college, universities, internal scholarship, foreign training, social and cultural activities, special projects and, industrial research. Figures in parenthesis show centre's contribution as a percentage of total provincial expenditure. The regional break-up of central expenditure between East and West Pakistan has been estimated on the basis of projects and approximate sharing of benefits by the two provinces of such projects. Source: Adapted from GoP (1966b), Tables 12.4 and 12.5, pp. 221–222.

A review of various earlier government plan documents shed further light on this issue. The first plan favoured post-primary sectors in terms of higher allocation of funds over the primary sector. Although the constitution of Pakistan recognised regional disparities by 1960, such recognition mostly remained limited to economic spheres. For example, Akthar (1971) in a review of allocations and objectives of various five-year plans since 1955, notes that while the plan acknowledged some regional inequalities in economic outcomes and noted the need to address them, no such observation was made on educational outcomes. That is, none of the plans recognised regional disparities in education outcomes. Only in the fourth plan was the educational investment mentioned as a development strategy to better distribute educational opportunities between regions. Thus, favourable allocations of the central government education budget, along with an overall 'discrimination' of public funds, are likely to have aided the positive growth in schools in the West versus a lagging East.

*(b) Failure of provincial policy?*

Provincial governments had an inescapable responsibility for the delivery of education in post-1947 years. And it could be that provinces did not allocate enough resources for educational developments.[33] But we argue that the extent of provincialisation of educational management and the ability of the provincial government to deliver education in East Pakistan was not exogenous of central government policies. To appreciate these points, an understanding of the prevailing structure of educational management in Pakistan during 1947–71 is crucial.

During the British period, various local bodies – district boards, district school boards, and municipalities – were responsible for the general administration of primary education, a structure which soon proved to be disastrous. As a response, primary education was made the 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. How-

[33] In addition, East Pakistan provincial government could be accused of not tapping all the possible sources for financing education. However, as already argued, fiscal capacity (i.e. various means of financing local development needs including education) of East Pakistan government was severely constrained by the Central government at least in the early 1960s. Similarly, one could point out a somewhat lower level of implementation of the First Plan (1955-56) in Bangladesh due to low absorptive capacity. However, low absorptive capacity is as likely to be a result of low public investment.

ever, East Pakistan and Punjab were kept out from this reform (GoP, 1958; 1959). In addition, the central government directly controlled schools in federal areas of Karachi, N.W.F.P., and Baluchistan. In these provinces, the increase in educational expenditure was more than proportionate to the increase in provincial budget (Huq, 1954). Even in the West Pakistani province of Punjab, where schools were locally managed, central government grants in a large number of cases almost entirely accounted of the operating costs of new schools (GoP, 1959; p. 180). Grants were given to these local bodies and new primary schools were being opened on 100% financial grants from the Centre (GoP, 1958). In addition, the Punjab government introduced the 'free compulsory primary education scheme' in 1953 which also included the existing non-government schools. Compensatory grants were nevertheless made available to the non-government schools to make up for their loss of income, previously earned from student fees (GoP, 1955). However, we are not aware of any such compensatory financial grants (from the central government) for non-government schools in East Pakistan.

Turning to commitment and contribution of the provincial government for education development, two crucial factors are size and structure of the provincial education budget. On the question of budgetary allocation to education, a comparison of percentage share of education in provincial budget of East and West Pakistan revealed no significant difference in percentage share of budgeted expenditure on education during 1952–68. From Table 16, there does not appear to be any significant regional difference in the share of primary education in the educational expenditure during 1952–68 which could explain the disparity in primary education sector development in East and West Pakistan. In addition, the share of educational expenditure in total provincial budget also follows closely in the two regions particularly in the 1960s.[34] During the pre-plan era (i.e. up to the mid 1950s), there were large differences in provincial primary education expenditure allocation which apparently poses a puzzle. Perhaps in the early years following independence, educational planners in East Pakistan were more concerned about educational backwardness at the post-primary level so that greater allocation was made to close regional gaps in the availability

[34] Although funds given by the Centre to provincial government in West Pakistan could be shown as expenditure incurred by the provincial government without disclosing the actual money received from the centre and revenue raised by the province. Padmanabhan (1986) documents a similar problem in India.

of higher education places. However, this hypothesis is not supported well by the data either; as pointed out earlier, this period saw a near-stagnant situation in higher education provision in East Pakistan. The puzzle is partly answered by the fact that there were large regional disparities in actual realisation of planned allocations. Whilst this shortfall in actual allocation is attributable to overall resource availability, it also points towards the failure of the incumbent Muslim League government to uphold the interests of its electorate in East Pakistan. The League was overtly pro-Centre and consequently was ousted from power in 1954 in the Eastern province. Therefore it is not surprising that from 1955–64, the share of primary education in total education budget in East Pakistan had been higher than that in West Pakistan. From 1962 onwards, when primary education was fully provincialised, the share stabilised in East Pakistan.[35] Hence, developments in this sector cannot be attributed to differences in regional policies in allocating expenditures to education. If anything, the gap in schooling infrastructure mirrors the inter-regional difference in total education budget. Consequently, any educational disparity between the two regions has to be explained in terms of size of provincial education budget.

**Table 16: '**% of budget expenditure on education' and '% of educational expenditure on primary education' in East and West Pakistan, 1952–68

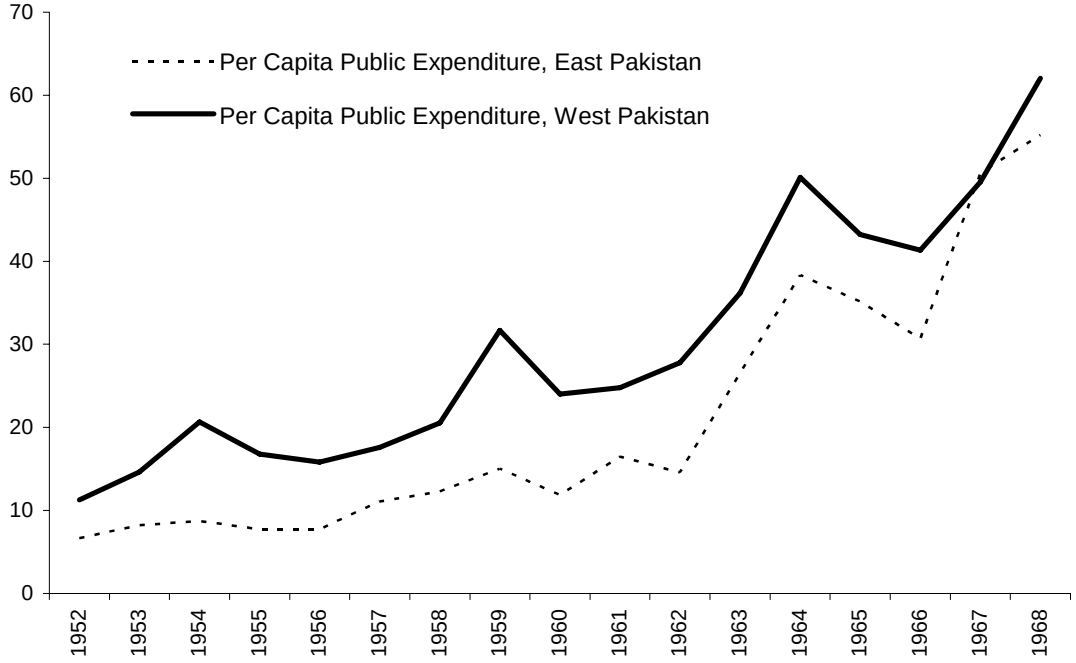
| | | % of provincial budget allocated to education | | % of provincial education budget allocated to primary education | |
|---|---|---|---|---|---|
| | | **EP** | **WP** | **EP** | **WP** |
| **1952–54** | [Pre-plan years] | 11.11 | 9.66 | 13.66 | 49.00 |
| **1955–59** | [1st plan year] | 11.20 | 11.60 | 48.40 | 39.00 |
| **1960–64** | [2nd plan year] | 13.00 | 14.00 | 35.80 | 34.60 |
| **1965–68** | [3rd plan year] | 12.25 | 16.25 | 27.23 | 33.75 |

Note: All figures correspond to average of annual percentages in the respective period. Data is from 'Fifty years of Pakistan in Statistics' (GoP, 1998). Comparable data on expenditure in East Pakistan for the periods 1947–51 and 1969–71 was not available.

[35] The law relating to primary education in Pakistan was consolidated under the *Provincial Primary Education Ordinance*, 1962.

Figure 4 graphs per capita public expenditure over time in East and West Pakistan. The East wing had consistently received smaller public expenditure than its western counterparts. Given such disparity in the overall expenditure, it is no surprise that educational expenditure also followed suit. This is also elaborated in Figure 5. A comparison of Figure 4 with Figure 5 suggests that although in later years existing regional gaps in expenditure had been somewhat reduced, no such pattern was discernible in case of educational expenditures.

**Figure 4:** Per capita public expenditure by provincial governments, 1952–1968 (in Rupees)

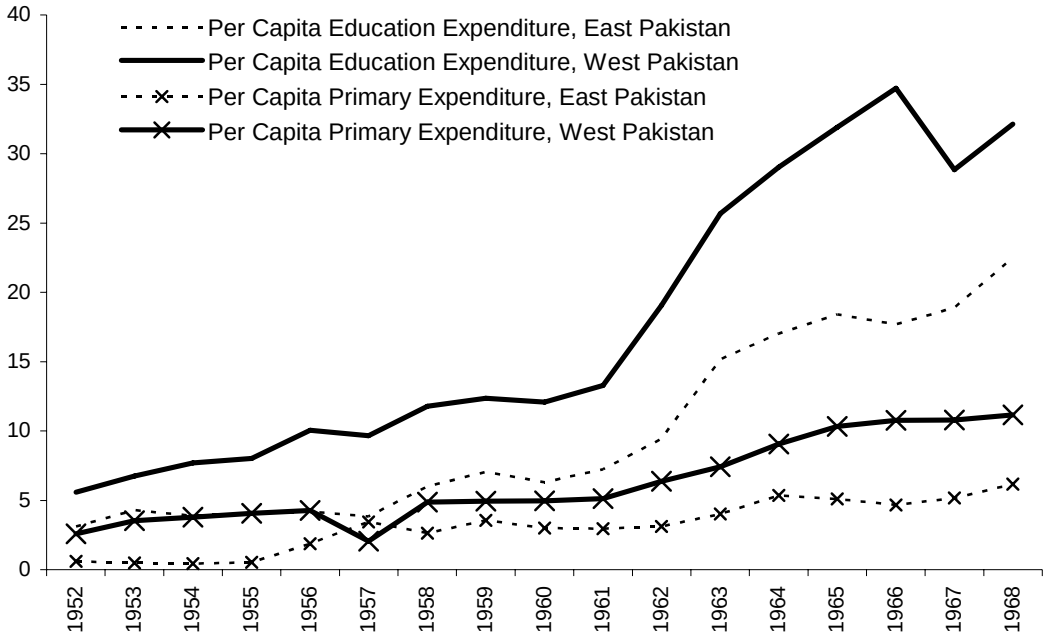



Notes: Expenditure data is from '50 Years of Pakistan in Statistics', GoP (1998), Tables 13.30 and 13.31, Vol. 2, while annual figures on the underlying population are from 'UN Demographic Yearbook Historical Supplement 1948–1997', the United Nations (2000). Comparable data on expenditure in East Pakistan for the period 1969–71 was not available.

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 for

two reasons. First, in 1948, the federal government limited sources of provincial revenues by reallocating income tax and sales tax revenue from provincial to central government. This seriously curtailed the overall size of provincial budget. Secondly, reallocation of East Pakistan's export earnings to the West by the federal government severely shrank the provincial budget of the East. The indirect but strong federal control over provincial revenue meant that during 1947–1971, schools in East Pakistan were obliquely subject to resources allocated by the federal government located in West Pakistan. Following the two-part scheme of transfer of resources to the Centre, the provincial government of East Pakistan and the local bodies experienced a tighter budget constraint for the supply of schools and recruiting teachers necessary to support the growing school-age population.

**Figure 5:** Per capita educational expenditure and expenditure on primary education by provincial governments, 1952–1969 (in Rupees)




Notes: Expenditure data is from '50 Years of Pakistan in Statistics', GoP (1998), Tables 13.30 and 13.31, Vol. 2, while annual figures on the underlying primary school-age (5–14 years old) population are projected using data from 'World Population Prospects: The 2002 Revision' and 'World Urbanisation Prospects: The 2001 Revision', the United Nations.

In the 1960s, following the 1962 Constitution, the above constraint was partially relaxed: rights to revenue, earned internally from provincial sales

tax, were returned to the respective province. However, the regional gap in budget size largely remained unaltered suggesting that revenue loss experienced throughout 1947–71 was primarily owing to transfer of export earnings from the Eastern province to the Centre in West Pakistan.

# VI Testing for the hypothesis of resource constraint

We do not have detailed budgetary data for sufficient time period to causally test the hypothesis of resource crunch. Our earlier analysis of East Pakistani data with that for West Bengal and UP presented in Section IV, we argue, nevertheless serves as a crude test for the above claim in a natural experiment-type set up. Such an experimental framework is defined by the presence of two comparable groups which differed in terms of their exposure to exogenous policy shocks, ceteris paribus. The Indian federal system contains two states – West Bengal and UP – that were comparable to East Pakistan. Yet, the Indian federal system of governance, despite various similarities to the Pakistani federal system, differed in terms of federal laws that potentially curtailed the extent of provincial autonomy in the provision of public goods. Presence of such laws in the Pakistani system provides the equivalent of exogenous policy shocks.

Two key federal systems that distinguished India and Pakistan were as follows. First, the Government of India Act 1935 extended provincial autonomy to eleven provinces of pre-1947 India. This autonomy continued in post-1947 years in West Bengal and UP whereas it was scrapped in 1948 in Pakistan, both the East and the West. Second, provinces within post-partition India were not subjected to any inter-provincial resource transfer as was experienced by East Pakistan. This setting could be viewed in terms of a crude natural experiment-type framework where the treatments were 'abolition of provincial autonomy' and 'inter-provincial resource transfer'.[36] Hence, East Pakistan was the treated group while the two Indian states comprised the control group.

The federal policy differences aside, these two Indian states experienced growth rates in population similar to East Pakistan, shared a common socio-economic background and had similar educational structures. First, in 1948–49, total population in West Bengal and UP stood at 23.45 and 59.64 million respectively whilst it was 41.78 (in 1950) in East Pakistan. Therefore, West Bengal had the smallest school age population. However, initial school participation rates were low in all provinces. Exact data on enrolment rate is unavailable although this can be approximated by comparing data on percentage of primary pupils to total population aged 5–14 years. In 1949, these were 18.60% and 13.07% in West Bengal and UP whilst the

[36] One minor administrative difference remains, however: the system of planned development was introduced in India in 1950 while it was adopted in Pakistan in 1955.

corresponding figure for East Pakistan was 23.8% (in 1950).[37] Second, the public sector was the major driver of growth in primary schools. In 1947–48, 52% and 88% schools were managed by government and various local bodies in West Bengal and UP.[38] Of the remaining (i.e. private) schools, 90% were aided by the government. In subsequent years, share of public schools increased so much so that by 1965–66, 92.4% and 94.8% primary schools were in government ownership in West Bengal and UP respectively. Third, unit cost of primary education stood in the Indian states was much higher than that in East Pakistan.[39] Fourth, similar to East Pakistan, provision of primary schooling in these two Indian states was solely a responsibility of the respective provincial governments. The federal government in India had little to do with primary education in West Bengal and UP. Fifth, the share of education in the total provincial budget was 9% and 12% in West Bengal and UP respectively (Saiyidain et al., 1952, p. 50) whilst this figure was 11% in East Pakistan in 1952.

[37] Figures for the Indian states have been estimated using data from Saiyidain et al. (1952), pp. 152–153. Alternate estimates are available for a narrower age bracket for a later year. For instance, GoI (1994) reports that 53.6% and 36.3% of the primary school age children were enrolled in school in West Bengal and UP respectively in 1951-52.

[38] These figures have been calculated using published data reported in GoI (1994). They are consistent with similar estimates reported elsewhere. For instance, Saiyidain et al. (1952) report 49.4% and 81.7% schools in government and local body management in West Bengal and UP in 1947-48.

[39] According to one estimates, these were Rupees 7, 11.8 and 10.4 in East Pakistan, West Bengal and UP respectively (Saiyidain et al., 1952, p. 50). Government schools in West Bengal were even costlier.

**Table 17:** Growth in primary school size and student teacher ratio (STR) in East Pakistan and selected Indian states, 1948–1966

| | West Bengal | | Uttar Pradesh | | East Pakistan | | West Bengal | | Uttar Pradesh | | East Pakistan | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **STR** | **Index of growth** | **STR** | **Index of growth** | **STR** | **Index of Growth** | **School Size** | **Index of growth** | **School Size** | **Index of growth** | **School Size** | **Index of growth** |
| **1948** | 29.47 | 100.00 | 39.08 | 100.00 | 26.73 | 100.00 | 74.85 | 100.00 | 79.73 | 100.00 | 68.22 | 100.00 |
| **1949** | 30.21 | 102.52 | 36.89 | 94.39 | 35.95 | 134.51 | 81.68 | 109.12 | 75.37 | 94.53 | 87.36 | 128.05 |
| **1951** | 32.80 | 111.29 | 38.80 | 99.28 | 35.37 | 132.34 | 95.82 | 128.02 | 85.29 | 106.97 | 87.01 | 127.54 |
| **1952** | 33.92 | 115.12 | 35.22 | 90.14 | 39.95 | 149.45 | 98.28 | 131.30 | 88.68 | 111.23 | 94.63 | 138.72 |
| **1953** | 34.88 | 118.35 | 34.74 | 88.90 | 39.57 | 148.04 | 102.44 | 136.86 | 86.24 | 108.16 | 101.10 | 148.19 |
| **1956** | 31.43 | 106.64 | 35.29 | 90.31 | 36.77 | 137.55 | 91.53 | 122.28 | 85.83 | 107.65 | 100.93 | 147.94 |
| **1957** | 31.33 | 106.31 | 36.26 | 92.79 | 37.91 | 141.81 | 91.97 | 122.87 | 87.49 | 109.73 | 103.18 | 151.25 |
| **1958** | 31.72 | 107.62 | 38.16 | 97.65 | 37.40 | 139.93 | 92.93 | 124.16 | 93.14 | 116.82 | 105.16 | 154.14 |
| **1959** | 32.25 | 109.44 | 41.01 | 104.95 | 38.71 | 144.81 | 94.59 | 126.37 | 99.88 | 125.27 | 111.86 | 163.97 |
| **1960** | 31.56 | 107.10 | 41.88 | 107.15 | 40.53 | 151.64 | 94.49 | 126.23 | 102.07 | 128.02 | 119.64 | 175.37 |
| **1961** | 31.47 | 106.78 | 39.97 | 102.27 | 41.35 | 154.70 | 94.20 | 125.85 | 98.77 | 123.88 | 124.90 | 183.09 |
| **1962** | 31.67 | 107.48 | 41.91 | 107.24 | 41.51 | 155.28 | 93.12 | 124.40 | 101.73 | 127.59 | 129.31 | 189.54 |

Notes: Data on the total number children and teachers in primary schools and the total number of schools in the Indian provinces are from ‘Education in India, 1994’, Central Publication Branch, Government of India (GoI).

Comparison of East Pakistan to these two Indian states reveals that, despite having similar socio-economic background and smaller total of primary schools in 1947, West Bengal and UP surpassed East Pakistan by 1961 in primary school availability even after adjusting for the underlying population size (Figure 3). Similarly, the total number of students and teachers was much larger in East Pakistan at the time of the independence. Yet, STR was much lower compared to the Indian states. Nonetheless, a shortage in teacher supplies plagued the primary schools in later years, leading to inflation in STR. Table 17 shows the growth of school size and STR for the period 1948–1962 in the three provinces.

The increase in STRs in East Pakistan has been of the order of 55% compared to only 7% in the comparing provinces. Similarly, school size increased by 89% in East Pakistan whilst primary school size in the Indian provinces recorded a growth of approximately 24–27%. Such poor growth of primary education facilities in East Pakistan was in line with relatively poor literacy rates. According to the Census of 1951, literacy rates in UP and West Bengal were 10.8% and 24% respectively compared to 18.8% in East Pakistan. East Pakistan gained only 5 percentage points during the decennial period (i.e. 1951–1961), whilst UP and West Bengal experienced 100% and 41% increase in literacy rate during the same period.[40] This difference in the growth of primary school availability and gains in literacy rates therefore corroborate the claim that the changes in school availability in East Pakistan were driven by the two changes in federal policies that only affected the Pakistani province by limiting the sources for educational finance.

An additional test, premised on yet another natural experiment, can be set up by comparing educational facilities before and after the disintegration of East and West Pakistan. If the educational decline in East Pakistan was driven by exogenous budget constraint imposed by the Centre, political separation must have removed this in the post-1971 period, when East Pakistan emerged as an independent state, namely Bangladesh. If true, the test predicts a convergence in school provision between Bangladesh and Pakistan in post-partition years. Figure 6 documents the evolution of regional disparity in primary and secondary school availability by plotting data on the indices of disparities for the period of

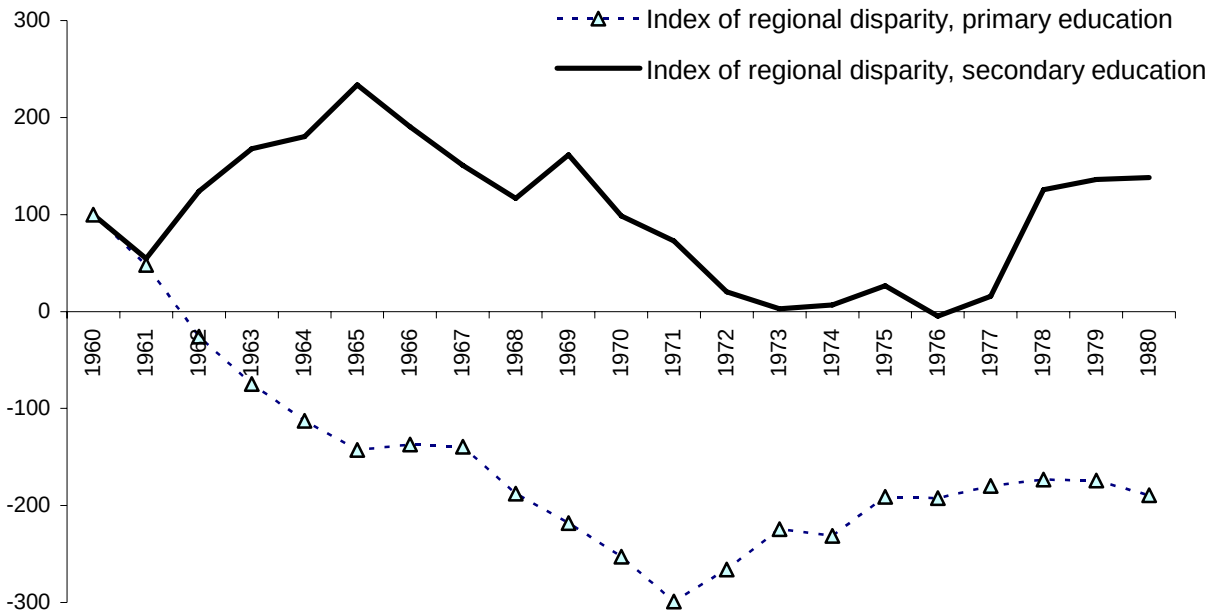
[40] The literacy rates in UP and West Bengal in 1961 were 20.7% and 34.5% respectively. These figures exclude population in the age group 0-4 years. For details, see Tables 225 and 226, ‘Statistical Abstract of India’, Central statistical Organisation, department of Statistics, Ministry of Planning, Government of India (1979).

1960–80. The index traces changes in total number of schools per thousand children in East Pakistan relative to that in the Western wing. To recapitulate, it is defined as:

$$[\text{Index of Regional Disparity}]_j = [\text{Disparity Ratio} - 1]*100,$$

where 'Disparity ratio' = (Total Schools in East Pakistan) / (Total Schools in West Pakistan); j = primary, secondary. Thus the index calculates the annual percentage change in the disparity ratio relative to that in 1959–60. The zero axis is the 'line of parity/equality' where values below it indicates the relative regional deprivation.

**Figure 6:** Regional disparity in primary and secondary school availability, 1960–1980




Note: Data is from 'Fifty years of Pakistan in statistics' and 'Bangladesh education in statistics'.

The restoration of parity in the availability of primary school (per 1000 children) in the post-1971 years is conspicuous, and unambiguously driven by a shift in the supply of primary schools in Bangladesh. A similar boost in the supply of secondary schools is observed. This finding is remarkable for the following reason. In post-independence years, colleges and universities in Bangladesh took the major share of funds allocated in the First Five Year Plan, 1973–78 (Sattar, 1982, p. 25). The share of pre-higher education in national budget remained unchanged during the Two Year Plan period, 1978–80 as well. The ap-

parent rebound in the indices of regional disparity in primary and secondary school availability therefore arguably provides an effective rebuttal to the null that no external resource constraint applied to the province of East Pakistan during pre-1971 years.

In sum, the two aforesaid tests, akin to natural experiments, provide compelling evidence in support of the hypothesis that educational provision in East Pakistan during the period 1947–71 might have been adversely affected owing to a budget squeeze that ensued following the economic hegemony of the central government, located in the Western wing.

Notwithstanding the statistical evidence of educational disparity, we cannot decisively conclude that the observed difference in school infrastructure is a result of 'discrimination' by West Pakistan. There are several reasons for this. First, the data on total number of schools might have been noisy. Although we use published government data for our analysis, such data might be problematic: total number of schools might have been under-counted. If under-counting is present and more so in East Pakistan than in the West, the observed difference in total number of schools may simply reflect that bias in regional education statistics. We do not know the extent of inter-regional variation in quality of published education data.

Second, there still remain other potential explanations for difference in educational facilities between East and West Pakistan. For example, there has been significant out-migration of Hindus from East Pakistan to India around the time of the 1947 partition of the Indian subcontinent. By the late 1940s, a large number of upper and middle class Hindus migrated from East to West Bengal[41]. This may have affected the education sector adversely if migrants included significant number of Hindus who were previously employed as school teachers in East Bengal. The occupational details of the migrants are not known. There is limited evidence suggesting greater migratory movements amongst non-agriculturists and better-educated individuals (Bharadwaj et al., 2005). Nonetheless, whether differences in migration levels and educational backgrounds of the migrants changed the overall educational profile of East Pakistan is not evident. Bharadwaj et al. (2005) find that West Pakistani districts that saw higher migratory flows gained significantly in terms of literacy between 1931 and 1951. However, for East Pakistan (Bangladesh), migratory flows did not have significant impact on changes in literacy rates.

[41] The remaining post-1947 Hindu migration was either from lower urban strata or from East Bengal country side. Around 2.5 million such Hindus are said to have migrated from 1950 through 1956 (Tan and Kudaisya, 2000).

Besides the above possibilities, differences in population density across provinces could also partly explain inter-regional differences in school growth. Provinces with sparse distribution of population such as N.W.F.P. and Sind could have been allocated a disproportionately larger number of new schools.[42] This could also have resulted in smaller average school sizes and STR for West Pakistan. Hence, comparison of school conditions in urban East and West Pakistan with similar population density could shed more light on the causes behind the observed disparity. Another possible explanation for the disparity could be differences in the relative success in implementing compulsion in school participation. Perhaps more area was brought under compulsory programme in West Pakistan and hence the need for more schools. However, our earlier discussion of enrolment data at the regional level does not support such a possibility. Lastly, it could also be argued that East Pakistan received favourable treatment in other sub-sectors of education such as post-secondary education, vocational training, higher education, madrasa education and so on, which compensated for lower allocation to and poor development of the primary sector. However, the existing statistics are not supportive of this hypothesis.

[42] In 1950, population density (per sq. mile) in Baluchistan, Khairpur, N.W.F.P. and Sind was 11.8, 52.9, 90.3 and 91.6 respectively (Huq, 1954).

# VII. Conclusion

This paper has revisited the state of educational infrastructure in East and West Pakistan during their quarter century of union. During 1947–71, we observe that school infrastructure declined steeply in East Pakistan. While West Pakistan gained 35,287 additional primary schools, those in East Pakistan experienced a negative growth. By 1971, the total number of primary schools in East Pakistan declined by a total of 902 (compared with the number in 1947). Similarly, the growth of secondary schools suffered. A faster growing primary school age population and a larger total of actual school-going population in East Pakistan left primary (and secondary) schools (as well as class-rooms) overcrowded. In contrast, despite a smaller total of school age population which grew at a relatively smaller rate, West Pakistan enjoyed a higher growth in enrolment, matched by a large increase in the total number of schools and teachers. Additional supply-side inequalities were documented in post-primary education, particularly in higher education. The educational backwardness of East Pakistan was also manifested in relatively low levels of educational attainment and functional literacy.

Identifying the exact causes of observed decline in primary schools 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 structural explanations for the disparity in educational supplies. We argue that these regional disparities cannot be attributed to regional differences in school types, quality, school age population, and unit costs of schools. Rather, this problem is examined in terms of an outcome of the policies of the central government of Pakistan and in particular, the hypothesis of ‘discrimination’.

The growth in schooling infrastructure in West Pakistan could reflect the ‘convergence phenomenon’ in a federal system where the province with scarce human capital stock experiences greater accumulation following support from the Centre and respective provincial government. However, this does not explain the ‘divergence phenomenon’ or absolute decline of primary schooling facilities in a province such as East Pakistan. We did not find significant regional difference in the share of (primary) education in the respective provincial budget. Large regional gaps prevailed in the size of total provincial education budget. Consequently, the roots of such educational disparity, we argue, could be traced to economic and political arrangements which led to regional differences in the size of total provincial budgets. Due to the alleged unilateral transfer of resources and relocation of provincial tax earnings to the Centre, the gov-

ernment of East Pakistan and local bodies might have experienced a tighter budget constraint for the supply of additional schools or recruiting additional teachers to staff existing schools that served the growing school age population. Comparison of East Pakistani data to that of West Bengal and UP, two Indian (federal) states that did not experience similar inter-provincial transfer of resources, lends indirect support to our claim. Additionally, cogent evidence is gathered by comparing availability of primary schools in Pakistan and Bangladesh for the period of 1960–80. It appears that, to some extent, the political liberation of East Pakistan has indeed ameliorated the past educational disparities experienced during 1947–71. These two pieces of evidence compel us to accept the hypothesis of an exogenous budget constraint in educational provision in East Pakistan.

It should be noted that the poor conditions of the education sector in East Pakistan could not be attributed to the general neglect of education among the policy makers in that era. Pakistan's educational backwardness is duly acknowledged in the reports of the two earliest national commissions on education: the 1959 Sharif Commission and the 1968 Nur Khan Commission. However, both shied away from documenting the growing educational deprivation in primary and secondary levels in East Pakistan. While defining the objectives of the education system, the 1959 report of the Commission on National Education states:

> Our education system must play a fundamental part in the preservation of the ideals which led to the creation of Pakistan and strengthen the concept of it as a unified nation…. We lay stress on the necessity to develop an educational programme … which will cultivate this sense of unity.
>
> (GoP, 1959; p. 10)

However, growing educational disparity fed into existing and growing regional economic inequalities. And it is the very disparity in educational opportunities that, *inter alia*, might have weakened the bond between East and West Pakistan.

It should be pointed out that our research does not imply that the Central government of Pakistan expressly blocked educational development in East Pakistan. Rather, schooling conditions in the Eastern province declined as an unintended consequence of the Centre's pro-West focus which caused a resource crunch in East Pakistan. The direct evidence of discrimination is largely limited to the pre-plan period of 1948–54, when the Centre perhaps chose to equalise educational provision between the Eastern and the Western provinces by a deliberately larger allocation of its education budget to the latter. This pol-

icy had unanticipated repercussions for educational advancement in the former province. 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 available data. We nevertheless exercise caution in interpreting our results.

The evidence of inter-regional disparity in educational inputs such as total number of schools, teacher salary, teacher training and class-size is consistent with the regional divide in school completion, dropouts and functional literacy rate. Future research should attempt to examine in detail the long-term consequences of such human capital inequalities due to disparity experienced by East Pakistan (Bangladesh) during 1947–71.

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