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**AN ANALYSIS OF SCHOOL LEVEL DROP-OUT
RATES AND OUTPUT IN PAKISTAN**

SHAHRUKH RAFI KHAN
Research Economist

REHANA SIDDIQUI
Staff Economist

FAZAL HUSSAIN
Associate Staff Economist

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Research Reports Editorial Committee

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Introduction

Drop-out rates for Pakistan have so far been calculated from primary sample survey data. These have indicated that the main reasons for dropping-out may be the illiteracy of parents and their subsequent disinterest in education, harsh treatment by poor quality teachers, poverty and ill-health and poor teaching facilities, particularly overcrowding.¹ Our original purpose for writing this paper was to generate drop-out rate series over time using secondary enrollment data and by using proxies, test on a macro level the various hypotheses generated at the micro level.

Our original aim had to be altered. The first draft of this paper was criticised for not carrying out the analysis to regional (urban/rural) disaggregation because dropping-out is more rural than an urban phenomenon, and the reasons mentioned above are more likely to apply in a rural setting. Having made this disaggregation, we found we were unable to also disaggregate our proxy independent variables since the needed time series data were not available.

1. The staff at the Institute of Education and Research, Lahore have supervised several M.A. Theses on the causes of dropping-out. See for example Saqib and Asi [9] and Qamar and Khan [8]. These studies are neither representative for the country as a whole nor very rigorous, but they do provide some insights into the dropping out phenomenon. For a more recent national study of drop-outs based on stratified random sampling see [3]. This study however concentrates on the complex flow of students from class I to class II. The complexity involved will be discussed in the text further on in this paper.

What we have here then is a much less ambitious endeavour, perhaps paving the way for more enterprising researchers. Drop-out rates have been presented and discussed by provincial, regional and gender disaggregations. In so far as the cohort analysis we engage in is acceptable, an overall picture is presented for the first time about the magnitude and incidence of this very serious problem. The popular press often states that about fifty percent of primary school students drop-out before completing class V. While this is a fairly accurate approximation, it is little aid for policy making since it does not precisely identify the problem areas by province, region or gender. This is what we have done. We feel this can not only guide policy but also point to the areas where more detailed micro studies should be done.

Enrolled students at the school level who do not drop-out eventually matriculate and become counted in the output statistics. Much information exists by various disaggregations which has never been presented and reviewed. Once again, our contribution here can only be viewed as preliminary, but nonetheless useful in chartering a course and making a wealth of information available to other researchers. By documenting the differentials by province, gender and region, we have again identified the main problem areas for further indept study of causes. An example will clarify this point. Only a quarter of one percent of the 15-19 population cohort of rural girls in Baluchistan attained a matric degree in 1981. Why this was so and whether this continues to be true are questions that urgently need to be answered.

1. Drop-Outs

a) Data, Definition and Measurement.

For drop-outs, the data utilised in this study are mostly from unpublished sources since class-wise data disaggregated by region and gender have so far only been published by the Punjab [77]. Data for the other provinces were taken from the original files made available to us. For Sind this was from the Bureau of Statistics and for NWFP and Baluchistan from the respective Directorates of Education at Peshawar and Quetta. Class-wise enrollment data by regional disaggregation was not available for the earlier years, so our write up on drop-out covers only the period 1977/78-1982/83 i.e the Fifth Plan period. For more details about this data see Khan et.al [2, Appendix-A 7].

Drop-outs constitute students who for various reasons leave school before completion of the education level they enrolled in.² Drop-out rates (DRs) were calculated in the following way.

E_t = Enrollment in the base year,

E_{t+1} = Enrollment in the next year and in the next class,

Assuming E_t is enrollment in class 1 in 1977/78 then E_{t+1} is enrollment in class II for 1978/79. The difference identifies

2. For a discussion of drop-outs see Brimer and Pauli [1, pp.15-18].

the reduction of a class cohort as it proceeds to the next level. The DRs were then calculated as follows:

$$DR_t = \frac{E_t - E_{t+1}}{E_t} \times 100$$

Using this method, we calculated annual DRs for the period 1978/79 - 82/83, for each class or grade by gender and region. We computed the average DRs at the primary level by taking the average of individual class DRs for each year. We also computed the DRs for each class by taking the average across all years for that class.

This method of calculating DRs could bias the estimates because it captures the following other causes for changing class size apart from dropping-out:

- 1) Emigration from the province leading to a decline in enrollments.
- 2) Immigration, leading to an increase in enrollments.
- 3) Repetition.
- 4) Unreliability of the coverage and compilation of the data.

In the first case, E_{t+1} is lowered relative to E_t whereas in the second case, E_{t+1} may be raised, thus causing distortions in the DR estimates. It could reasonably be assumed that one and two offset each other. The calculated estimates of repetition rates

we came across in a Sind pilot census of primary schools indicated that they were inversely related to class number (i.e. class 1, II etc) in primary school. The estimates showed a repetition rate of 57.8 percent for class I and a sharp drop thereafter to a more gradual decline in repetition rates between the other classes [10, p. 137]. The repetition rate for class V was 12.6 percent. The same pattern is evident in a more recent study by the staff of AEPAM [3, Table No. 17]. The high average repetition rates in class I for the whole country were 25 percent and the lowest for class V were 6.8 percent.³ Since repetition is inversely related to class number, our estimates overstate all DRs. The extent of overstatement would depend on the difference in repetition rates between two successive classes.

The effect of an increase in the number of institutions is not accounted for because new institutions are likely to draw students from within the educational system. New students are most likely to enter either the first class in primary or the sixth class in secondary; the number of students engaged in private study and entering in mid-primary or mid-secondary is assumed to be nominal. With these preliminary remarks out of the way, we turn to the write up about the DRs at the primary level presented in table 1.

3. Once again, the explanation of why repetition rates are so high in class I is deferred to the next sub-section.

Table - 1

DROP OUT RATES AT THE PRIMARY LEVEL BY PROVINCE,
REGION AND GENDER

| | Percentages | | | | | | | |
|---------|-------------|-------|--------|-------|------|-------|-------------|-------|
| | URBAN AREAS | | | | | | | |
| | NWFP | | Punjab | | Sind | | Baluchistan | |
| | Boys | Girls | Boys | Girls | Boys | Girls | Boys | Girls |
| 1978/79 | 7.9 | 15.5 | 9.8 | 21.4 | 14.6 | 13.0 | 19.8 | - |
| 1979/80 | 14.2 | 20.4 | 7.9 | 12.8 | 13.9 | 12.5 | 24.2 | - |
| 1980/81 | 14.9 | 21.5 | 10.8 | 22.2 | 15.4 | 14.9 | 14.9 | - |
| 1981/82 | 11.5 | 17.9 | 7.2 | 13.0 | 11.7 | 18.3 | 10.9 | - |
| 1982/83 | 15.1 | 17.6 | 5.5 | 15.1 | 13.5 | 13.2 | 12.3 | - |
| | RURAL AREAS | | | | | | | |
| 1978/79 | 20.6 | 34.4 | 14.8 | 26.7 | 19.8 | 24.2 | 28.1 | - |
| 1979/80 | 22.0 | 37.0 | 12.5 | 28.9 | 18.8 | 23.3 | 16.2 | - |
| 1980/81 | 22.8 | 32.3 | 14.2 | 26.6 | 17.1 | 21.0 | 26.0 | - |
| 1981/82 | 20.0 | 32.3 | 11.4 | 23.0 | 18.6 | 18.6 | 30.6 | - |
| 1982/83 | 20.1 | 32.3 | 10.7 | 22.9 | 23.0 | 17.6 | 21.7 | - |

Sources: For Punjab 1977. For Sind, the Bureau of Statistics, Karachi and for NWFP and Baluchistan the respective Directorates of Education. Girls' DRs were not reported here and further on because there were big fluctuations in these rates over-time, and also the rates appeared to be unrealistic, perhaps due to poor data.

b. Drop-Out Rate Patterns

Much information is contained in table 1. One efficient way to read it is to concentrate on one dimension at a time. Following this approach, several points emerge.

At the primary level, DRs for girls exceeded those of boys in both urban and rural areas except for urban Sind. The largest gender differential in both regions was evident for the Punjab province. For various cultural and social reasons, it appears that girls' education continues to be viewed as relatively unimportant. The same factors operating on the job market may also hinder incentives to female education.

Rural DRs were larger than urban DRs across the board, with the differential being larger for girls. This regional differential was particularly large in the NWFP. Rural DRs being higher is not surprising considering the poorer quality of schooling available there and the higher opportunity cost of attending school for rural children.

A clear picture did not always emerge from an observation of the magnitude of DRs. In both urban and rural areas, Sind had the lowest girl DRs and Punjab the lowest boy DRs. In both regions also, Punjab's boy DRs were considerably lower than in the other provinces. In rural areas, NWFP had the highest girl DRs and Baluchistan the highest boy DRs. The number of years we had to work with is not really adequate for a study of time trends.

However, casual observation shows fluctuations in all cases except in rural Sind for girls where there was an unambiguous downward trend.

The DRs presented in table 1 are an average of each year over the classes at the primary level. A few insights are forthcoming from presenting the same data as an average for each class across the five years. This information is contained in table II.

Table - II

DROP OUT RATES AT THE PRIMARY LEVEL BY CLASSES, PROVINCE, REGION AND GENDER (1978/79-1982/83).

| Classes | URBAN | | | | | | | |
|---------|-------|-------|--------|-------|------|-------|-------------|-------|
| | NWFP | | Punjab | | Sind | | Baluchistan | |
| | Boys | Girls | Boys | Girls | Boys | Girls | Boys | Girls |
| I-II | 52.4 | 55.4 | 21.7 | 42.2 | 21.0 | 23.6 | 40.9 | - |
| II-III | 5.8 | 7.9 | 3.2 | 2.0 | 12.0 | 13.4 | 7.9 | - |
| III-IV | 5.3 | 6.2 | 2.4 | 3.5 | 10.4 | 8.2 | 3.8 | - |
| IV-V | -10.4 | 7.5 | 5.0 | 6.6 | 13.5 | 12.3 | 13.4 | - |
| | RURAL | | | | | | | |
| I-II | 55.3 | 58.4 | 17.6 | 49.2 | 43.9 | 34.1 | 49.8 | - |
| II-III | 9.1 | 24.9 | 11.8 | 17.2 | 14.5 | 15.3 | 21.2 | - |
| III-IV | 9.7 | 22.4 | 7.8 | 15.9 | 13.3 | 18.3 | 12.8 | - |
| IV-V | 10.4 | 29.0 | 13.8 | 20.2 | 6.2 | 14.4 | 19.3 | - |

Sources: See table 1.

Table II shows that DRs are much higher from class I to class II, as compared to the other classes. The main reason is the bifurcation in practice of class I into "Kachi" and "Pakki".⁴ Kachi can be viewed as the equivalent of kindergarden or a pre-school class. Students in Kachi are mostly there to be acclimated and at the same time to relieve families of child care. Since enrollment in class II shows the flow of only Pakki class students, aggregation of Kachi and Pakki class enrollments as enrollments in class I wrongly shows up as very high DRs for the second class. We cannot adjust DRs for this over estimation because separate data for enrollments in Kachi and Pakki classes is not available.⁵

There are also two puzzles evident from presenting the data in this alternative fashion. First, there was a negative drop-out from class IV to V for boys in the urban NWFP.⁶ Second, there is a consistent pattern of drop-outs decreasing upto class IV and then increasing from class V. -Perhaps, a screening occurs to have only the better students take the first major competitive exam. This no doubt has a bearing on the reputation of teachers and schools.

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4. Another reason for the high DRs at the beginning may be the adjustment problems that occur at the early stage of education for some minors.
 5. A recent study / 3,p.11 / based on a sample survey attempted to estimate the actual DRs from class I to class II. When Kachi and Pakki were taken together the DRs from class I to class II at the national level was 40 percent and 43 percent for boys and girls, and 43 percent and 36 percent for urban and rural areas respectively. When only Pakki was used for estimating DRs from class I to class II, DRs were 12 percent and 14 percent for boys and girls and 14 percent and 10 percent for urban and rural areas respectively.
 6. We were unable to illicit a response from the NWFP Bureau of Statistics on this issue.

The secondary level DRs have only been presented by class level. The reason for doing this is to avoid having to average over all classes for the various years. Such an average for the urban areas would be meaningless because between fifth and sixth one can expect negative DRs. The reason for this is that a completion of this level of schooling in rural areas in many cases meant a transfer to urban areas for the continuation of schooling. Either facilities were not available in rural areas or else, they were not deemed adequate. This process boosted ERs in urban class VI and this showed up as negative DRs from class V to class VI in urban areas in table III.

Table - III

DROP-OUT RATES AT THE SECONDARY LEVEL BY CLASSES,
REGION AND GENDER (1978/79 - 1982/83)

| | Percentages | | | | | | | |
|----------|-------------|-------|--------|-------|-------|-------|-------------|-------|
| | URBAN | | | | | | | |
| | NWFP | | Punjab | | Sind | | Baluchistan | |
| | Boys | Girls | Boys | Girls | Boys | Girls | Boys | Girls |
| V-VI | -5.9 | -6.4 | -40.3 | 5.4 | -14.1 | -7.0 | -21.0 | - |
| VI-VII | 6.8 | 11.6 | 13.7 | 13.5 | 8.9 | 12.9 | 11.6 | - |
| VII-VIII | 7.7 | 10.9 | 7.0 | 11.6 | 6.3 | 7.2 | 6.9 | - |
| VIII-IX | 5.2 | 8.3 | 2.2 | 13.4 | 7.7 | 15.3 | -2.5 | - |
| IX-X | 20.0 | 18.7 | 21.8 | 16.0 | 2.0 | 5.9 | 22.8 | - |
| | RURAL | | | | | | | |
| V-VI | 19.6 | 63.6 | 30.2 | 63.0 | 58.8 | 80.8 | 50.6 | - |
| VI-VII | 10.6 | 17.0 | 19.4 | 22.5 | 11.2 | 20.4 | 18.0 | - |
| VII-VIII | 15.4 | 18.8 | 23.4 | 20.7 | 8.9 | 14.2 | 12.2 | - |
| VIII-IX | 23.9 | 63.8 | 50.3 | 68.9 | 46.1 | 91.8 | 70.8 | - |
| IX-X | 19.6 | 11.1 | 28.9 | 18.0 | 6.3 | 11.3 | 20.6 | - |

Source: See table 1.

Correspondingly, there is a massive jump in DRs evident in the rural areas. Observe that they are very high compared to primary class DRs and to most other secondary class DRs. The exceptions are the high DRs that occurred between class VIII and class IX. Once again the same reason was operative. Class VIII marks the end of the middle level and once again one can expect a movement to urban areas for the continuation of education to the matriculation and higher levels. The corresponding decline in urban DRs particularly for boys, could in part be reflecting this. However, there was not always a corresponding decline in urban DRs; Sind DRs and Punjab girl DRs are cases in point.

This suggests that there are other reasons for high DRs at the completion of a school level in rural areas, apart from migrating for further schooling into urban areas. Perhaps the most prominent of these is being drawn into the rural or urban labour force to contribute to family income. Alternatively, in many cases students may have to transfer at this stage to another school (even within the rural area) but the distance may hinder them from doing so. The opposition to girls in the rural areas pursuing higher education is particularly evident from the DRs from class VIII to IX, which ranges from 64 percent in the NWFP to 92 percent in Sind.

There is another reason why the decline in urban DRs from class VIII to class IX was not as steep as one might expect from the corresponding rise in rural DRs for those classes. A portion of the students after class VIII leave the mainstream education for secondary vocational education. Data was not available to adjust

for this and consequently the DRs are overstated.

A comparative study of table III by the various disaggregations the data is presented for also reveals that as in the case of primary education, in general girls' DRs exceed those of boys'. The surprising exception is the reverse holding true from class IX to X for both urban and rural areas in NWFP and the Punjab. Perhaps, after the high attrition for earlier years, the very determined girls go on for matriculation in these cases.

The greatest differential between boy and girl DRs is evident overall for Sind. This is also true for regional differentials where, as in the case of primary education, rural DRs exceed urban DRs by a large margin. Ranking is difficult because few consistent patterns emerge. One can say with some confidence that the largest girl DRs in rural areas were in the Sind.

So far, little has been said about the cumulative drop-outs over a level of education. These are shown in table IV for the primary and secondary levels. Cumulative DRs are generally higher at the primary than at the secondary levels except for rural secondary education where the reverse was often true. The numbers are noteworthy. Only about 3 percent of rural girls at the secondary level in Sind survived to attempt the matric exam and about 15 percent did so in the Punjab. Other cumulative DRs are not as drastic but still very high. Close to half and a third of the students drop out before attempting the final year exams for the primary and secondary levels in urban areas. In the rural areas, close to two-thirds and four-fifths drop-out. The waste implicit in these ratios is immense.

Table - IV

CUMULATIVE DROP-OUTS BY LEVEL, PROVINCE REGION
AND GENDER (1978/79-1982/83)

| | Percentages | | | |
|-------------|-------------|-------|------|-------|
| | URBAN | | VI-X | |
| | I-V Boys | Girls | Boys | Girls |
| NWFP | 52.0 | 61.0 | 30.7 | 36.1 |
| Punjab | 29.1 | 55.5 | 37.8 | 42.8 |
| Sind | 46.6 | 45.0 | 22.9 | 32.3 |
| Baluchistan | 52.6 | - | 31.6 | - |
| | RURAL | | | |
| NWFP | 65.7 | 79.7 | 55.3 | 71.8 |
| Punjab | 42.2 | 71.3 | 77.6 | 84.7 |
| Sind | 62.3 | 53.7 | 53.9 | 96.7 |
| Baluchistan | 74.5 | - | 84.9 | - |

Source: See table 1.

11. Output

Students who do not drop-out until class X have a chance at matriculating. The matriculation patterns and trends are examined along much the same dimensions as were utilised in studying DRs. Data was however not usually available by regional disaggregation. Most of the needed data was made available in published form by the Central Bureau of Education Islamabad, [47]. Data beyond the year 1979 had to be taken directly from the files.

Table V presents the percentage distribution of matriculates by gender and province for the years 1972 to 1981. In Punjab and Sind, the percentage of females attaining matriculation out of the total increased over this period. However, the percentage of girls matriculating was still about two-fifths of the total in Sind and one-third of the total in the Punjab in 1981. In NWFP there were mild variations over time in the percentages matriculating for both boys and girls. However, the largest differentials by gender were in this province with 87 percent boys and 13 percent girls matriculating in 1981. Baluchistan had considerable fluctuations over time, but the output of girls was higher than that of NWFP through out, although it was somewhat below that of the other two provinces.

We have also included the absolute numbers of matriculates in Table V from which the growth in matriculates across provinces may be observed. However, it is more meaningful to relate these numbers to the relevant population cohort. We have used the Population Census

Table - V
 PERCENTAGE DISTRIBUTION OF MATRICULATES BY PROVINCE AND GENDER.

| | NWFP | | Punjab | | Sind | | Baluchistan | | |
|------|---------------|------|---------------|------|---------------|------|---------------|------|------|
| | N | B | N | B | N | B | N | B | |
| | (Percentages) | | (Percentages) | | (Percentages) | | (Percentages) | | |
| 1972 | 14131 | 86.4 | 89559 | 77.0 | 39522 | 67.5 | 2689 | 80.2 | 19.8 |
| 1973 | 15144 | 86.9 | 93621 | 77.6 | 41102 | 68.4 | 3089 | 86.0 | 14.0 |
| 1974 | 16096 | 87.8 | 89830 | 76.1 | 44211 | 67.7 | 4029 | 82.4 | 17.6 |
| 1975 | 15980 | 86.9 | 81422 | 71.9 | 43865 | 67.3 | 3728 | 83.8 | 16.2 |
| 1976 | 20487 | 87.6 | 88663 | 75.3 | 51485 | 66.9 | 3585 | 73.2 | 26.8 |
| 1977 | 16086 | 88.5 | 74941 | 73.2 | 47550 | 65.6 | 3479 | 53.5 | 16.5 |
| 1978 | 20904 | 85.6 | 106438 | 71.3 | 46568 | 63.0 | 2465 | 72.0 | 28.0 |
| 1979 | 21237 | 87.6 | 101930 | 70.9 | 56897 | 63.1 | 3960 | 60.8 | 19.2 |
| 1980 | 27807 | 86.8 | 109585 | 68.3 | 64134 | 64.9 | 2749 | 64.7 | 35.3 |
| 1981 | 29511 | 87.4 | 117446 | 68.3 | 55986 | 61.6 | 4338 | 71.9 | 28.1 |

Note: N= Total numbers.

B= Boys.

G= Girls

Source: Pakistan [4]

for this purpose, which provides data on population and matriculates by different age groups by regional and gender disaggregation. We are only reporting here the percentage of matriculates in age group (15-19), since most of the matriculates fall in this age group.

Table - VI

PERCENTAGE OF MATRICULATES OF AGE GROUP (15-19) BY PROVINCE REGION AND GENDER

| | Percentages | | | | | |
|--------------------|-------------|-------|-------|--------|-------|-------|
| | (1973) | | | (1981) | | |
| | Total | Urban | Rural | Total | Urban | Rural |
| <u>N.W.F.P</u> | | | | | | |
| Total | 6.2 | 13.4 | 4.4 | 5.1 | 12.8 | 3.5 |
| Boys | 9.5 | 17.4 | 7.5 | 7.4 | 15.1 | 5.7 |
| Girls | 2.4 | 8.8 | 0.7 | 2.3 | 9.8 | 0.8 |
| <u>Punjab</u> | | | | | | |
| Total | 8.8 | 17.6 | 5.5 | 7.7 | 15.1 | 4.4 |
| Boys | 11.6 | 20.1 | 8.6 | 9.7 | 16.1 | 6.8 |
| Girls | 5.1 | 14.6 | 1.4 | 5.4 | 13.9 | 1.7 |
| <u>Sind</u> | | | | | | |
| Total | 8.9 | 16.4 | 1.9 | 10.1 | 17.3 | 2.4 |
| Boys | 10.4 | 18.7 | 3.2 | 11.3 | 18.8 | 3.7 |
| Girls | 7.0 | 13.6 | 0.1 | 8.6 | 15.6 | 0.5 |
| <u>Baluchistan</u> | | | | | | |
| Total | 3.7 | 12.9 | 2.0 | 2.5 | 10.1 | 1.0 |
| Boys | 5.0 | 15.3 | 3.3 | 3.1 | 12.1 | 1.5 |
| Girls | 1.9 | 10.0 | 0.1 | 1.5 | 7.4 | 0.2 |

Sources: Pakistan [5, 6] .

Gender and regional performances are predictable. Larger proportions of boys matriculated than girls and larger proportions in urban areas matriculated than in rural areas. In the former case, gender differentials in rural areas were much larger particularly in NWFP and the Punjab. In the latter case, the largest regional differentials could be found in Sind and Baluchistan.

The differences over time in the proportions matriculating were not major. In general the trend was for lower proportions matriculating in all provinces except Sind where there was an improved performance. This showed up in the magnitude comparisons across provinces. Sind's ranking in urban areas improved from second in 1973 (behind Punjab) to first in 1981. Similarly, in rural areas its ranking went from fourth in 1973 to third in 1981 (before Baluchistan). Even so, the proportion of rural girls matriculating in Sind was still under one percent in 1981. The same held true for Baluchistan and NWFP.

Common belief suggests that a majority of students pursue a general type of education in Pakistan (i.e. humanities). Overall, the evidence presented in table VII refutes this contention for boys. NWFP had started the decade with the highest percentages of matriculates in science for both genders but ended up with the lowest percentages. It is the only province which showed decreasing trends. The other provinces had an increasing trends for both genders. Sind showed the biggest increase, while Punjab also had a significant increase in boys' science output. Girls' science output showed a mild increase in Punjab and Sind. Baluchistan showed a substantial increase in girls' science output, and had the highest percentages for the later years.

Table - VII

PROPORTION OF MATRICULATES IN SCIENCE BY PROVINCE
AND GENDER

| | NWFP | | Punjab | | Sind | | Baluchistan | |
|------|------|-------|--------|-------|------|-------|-------------|-------|
| | Boys | Girls | Boys | Girls | Boys | Girls | Boys | Girls |
| 1972 | 50.3 | 28.6 | 45.0 | 16.9 | 46.9 | 25.0 | 42.1 | 26.3 |
| 1973 | 54.3 | 28.5 | 45.1 | 16.1 | 50.1 | 23.0 | 42.1 | 21.0 |
| 1974 | 52.9 | 28.0 | 48.3 | 17.2 | 49.9 | 24.2 | 34.2 | 17.8 |
| 1975 | 52.6 | 28.9 | 47.3 | 24.7 | 51.9 | 27.7 | 40.0 | 21.4 |
| 1976 | 50.5 | 28.0 | 55.1 | 14.3 | 54.2 | 28.9 | 44.8 | 35.7 |
| 1977 | 62.5 | 35.2 | 56.8 | 18.9 | 62.9 | 30.4 | 49.9 | 27.9 |
| 1978 | 47.9 | 29.1 | 54.3 | 27.7 | 67.8 | 29.6 | 31.2 | 34.1 |
| 1979 | 29.2 | 16.6 | 53.7 | 19.5 | 67.8 | 29.7 | 55.8 | 32.3 |
| 1980 | 43.4 | 17.8 | 55.7 | 17.1 | 69.7 | 29.9 | 38.1 | 36.0 |
| 1981 | 34.6 | 15.6 | 56.8 | 22.2 | 69.0 | 28.9 | 44.1 | 44.1 |

Source: Pakistan [4]

Another common belief prevailing is that the educational standards have deteriorated over time. One very crude proxy is provided in table VIII, which presents data on the pass percentage in the matriculation examination by gender and provinces.⁷ The pass percentage for boys declined substantially over time in all the provinces, with the biggest drop in the Punjab. Only in NWFP has there been an improvement in the last two years for which data was available. Sind had the highest pass percentage for both genders.

Table- VIII

PASS PERCENTAGE IN THE MATRICULATION EXAMINATION BY PROVINCE AND GENDER

| | NWFP | | Punjab | | Sind | | Baluchistan | |
|------|------|-------|--------|-------|------|-------|-------------|-------|
| | Boys | Girls | Boys | Girls | Boys | Girls | Boys | Girls |
| 1972 | 47.4 | 53.1 | 60.9 | 65.8 | 69.3 | 78.2 | 67.9 | 71.3 |
| 1973 | 42.3 | 45.2 | 59.3 | 60.7 | 67.8 | 75.4 | 69.1 | 70.9 |
| 1974 | 40.9 | 39.0 | 53.5 | 49.3 | 68.6 | 75.0 | 71.2 | 54.1 |
| 1975 | 35.0 | 37.3 | 44.9 | 49.5 | 64.1 | 71.1 | 63.7 | 69.9 |
| 1976 | 45.1 | 47.2 | 44.8 | 47.4 | 65.4 | 68.9 | 47.9 | 58.1 |
| 1977 | 46.6 | 48.6 | 41.8 | 51.5 | 61.8 | 66.5 | 48.0 | 55.0 |
| 1978 | 39.8 | 52.4 | 42.3 | 50.7 | 61.8 | 73.4 | 38.7 | 75.4 |
| 1979 | 41.9 | 47.3 | 42.3 | 59.8 | 61.6 | 79.0 | 47.1 | 69.7 |
| 1980 | 56.6 | 64.9 | 46.6 | 64.9 | 64.7 | 77.2 | 41.6 | 51.7 |
| 1981 | 56.4 | 57.0 | 47.9 | 63.7 | 66.6 | 79.7 | 64.0 | 54.8 |

Source: Pakistan / 4 /.

7. Pass percentages could also reflect numerous other phenomenon such as policy changes or a systematic change in grading standards over time.

Interestingly, girls' performance in the matriculation examination has been much better than boys in all the provinces for almost all the years. Although no clear time trends emerged, girls' performance/presents an encouraging picture. Perhaps only the more motivated and brighter girls stay in school beyond the primary level - given the social and cultural constraint on female education earlier referred to-and hence their average performance is better than boys. In addition, girls could be more serious about their studies for fear of being pulled out from schools if they don't perform well. Boys have more opportunities and fewer social restraints in indulging in non-academic pursuits, and perhaps they may feel more confident about being sent to school despite their poor performance.

So far, we have presented the pass percentages by provinces. The same information is presented again disaggregated by boards in table IX. This table shows that there were considerable fluctuations in pass percentages over time within and across boards. This need not be worrying if the fluctuations were around a similar mean. However, ranking the pass percentages across boards for all the years show some like Hyderabad, Karachi and Islamabad consistently had a higher pass percentage whereas others like Multan and Bahawalpur had a consistently lower pass percentage.⁸

It is not clear what this is suggesting. It could be that the sub-educational systems some boards cater to are inferior and have been consistently producing poorer quality students. Alternatively, these boards could have established a tradition of

8. The year 1985 is an exception and is therefore excluded from these comparisons.

Table - IX

PASS PERCENTAGES BY BOARDS

| | Pesha- war | Islama- bad | Rawal- pindi | Lahore | Mu:- tan | Bahawal- pur | Sar- godha | Hydera- bad | Kara- chi | Que- tta |
|----------------------------|---------------|----------------|-----------------|--------|-------------|-----------------|---------------|----------------|--------------|-------------|
| 1978 | 41.2 | 66.0 | 39.8 | 42.2 | 37.2 | 30.3 | 50.7 | 70.8 | 63.1 | 44.8 |
| 1979 | 42.5 | 71.9 | 54.1 | 43.9 | 39.6 | 37.9 | 47.9 | 65.0 | 68.4 | 50.2 |
| 1980 | 57.5 | 72.5 | 59.3 | 46.3 | 44.8 | 52.3 | 53.8 | 68.2 | 68.8 | 44.7 |
| 1981 | 56.5 | 63.4 | 57.8 | 50.1 | 44.6 | 50.6 | 54.4 | 70.3 | 71.3 | 61.1 |
| 1982 | 56.9 | 60.9 | 58.1 | 54.2 | 46.7 | 49.3 | 54.1 | 70.3 | 73.2 | 58.2 |
| 1983 | 57.4 | 58.4 | 56.4 | 55.0 | 45.3 | 47.8 | 53.9 | 70.3 | 75.0 | 55.2 |
| 1984 | 41.8 | 58.5 | 54.3 | 59.4 | 50.5 | 46.2 | 55.9 | 70.3 | 67.4 | 61.3 |
| 1985 | 43.3 | 62.7 | 49.7 | 56.5 | 49.1 | 36.8 | 57.8 | 57.5 | 49.9 | 35.5 |
| Mean | 49.6 | 64.3 | 53.7 | 51.0 | 44.7 | 43.9 | 53.6 | 67.8 | 67.1 | 51.4 |
| Stan- dard deviation | 7.5 | 5.1 | 6.0 | 5.9 | 4.2 | 7.4 | 2.8 | 4.3 | 7.4 | 8.6 |

Source: Pakistan / 4 7.

requiring a high standard of the students. The issue needs to be urgently explored. It is absolutely vital for there to be standardisation across boards as long and there are no restrictions on labour mobility and students compete for the same places in higher education or on the job market.

III. Summary of Findings.

The main objective of this paper was to present an overview of the drop-out and output patterns in Pakistan over time along all possible disaggregations. Our findings showed that DRs were generally higher in rural than in urban areas and higher for girls than for boys. Comparing performance across provinces, we found that at the primary level, Punjab had the lowest DRs for boys and Sind for girls both in the urban and rural areas. NWFP and Baluchistan had considerably higher DRs, particularly in the rural areas. The greatest gender differential existed in the Punjab and the greatest regional differential in the NWFP.

In examining the DRs by classes, we found that at the primary level, the highest drop-out occurred from class I to class II. This partly resulted from class I enrollments being the sum of Kachi class and Pakki class enrollments. Since separate enrollments of Kachi and Pakki were not available, overestimation of DRs from class I to II was inevitable.

At the secondary level, the data showed negative DRs from class V to class VI and low DRs from class VIII to class IX in the urban areas, and relatively high corresponding DRs in the rural areas. This probably results from the migration of rural students to the urban areas after completing the primary or the middle level or a withdrawal from school into the job market in rural areas.

Computation of cumulative DRs showed primary level DRs exceeded those at the secondary level. Even so, upto 97 percent of secondary level rural girls in Sind and 85 percent in the Punjab dropped out before matric. Close to a half and a third of the total students dropped out before attempting the final year exams at the primary and secondary level in urban areas and close to two-thirds and four-fifths did so in the rural areas. Such a high ratio of wastage should be of great concern to policy makers.

Analysing the output patterns, we found that in the Punjab and Sind, the percentage of girls out of total matriculates increased over the decade. The differential in the distribution of matriculates by gender was the greatest for NWFP. Although the absolute number of matriculates increased over time, this did not keep pace with the growth in the relevant population cohort. Total matriculates as a percentage of the (15-19) population cohort decreased in the intercensal period for all the provinces except for Sind. In 1981, Sind had the highest percentages of matriculates in the urban areas and Punjab did so in the rural areas. NWFP had the largest differential by gender and Sind had the largest differential by region. Baluchistan had the lowest percentages in

all cases. Perhaps, the most discouraging finding was that about one half of 1 percent of rural girls in Sind and about one quarter of one percent in Baluchistan had matriculated in the 15-19 age cohort in 1981. The corresponding urban statistics were only/ slightly higher.

An encouraging result was that out of total matriculates, the percentage opting for science increased over time except in NWFP. Sind showed the biggest increase for boys and Baluchistan for girls. NWFP had started the decade with the highest percentages but ended with the lowest.

Pass percentages of students appearing in matric dropped in all the provinces with the largest drop for boys in the Punjab. Sind had the highest pass percentages for both genders. Girls' performance was for almost all years better in all provinces than that of boys and improved over time. Surprisingly, girls in Baluchistan had the highest success rate while those in Punjab had the lowest.

There was a large variation in pass percentages across the boards, whereby some like Karachi and Hyderabad had consistently higher pass percentages and others like Multan and Bahawalpur had consistently lower pass percentages over the years. This issue needs to be looked into. If grading policies are not standardised, then this means a handicap exists for students matriculating from some boards in competing for the same place in higher education or the same positions on the job market.

One final suggestion we would like to make is to data gathering agencies. As an aid to future researchers, we suggest that Kacchi and Pakki be treated as separate classes for data collection. Also, output data should be presented by region because the Population Census Reports indicate that a large regional differential exists. Thus Sind shows up as the forerunner in the aggregate data but the poor showing in regional areas is evident from Table VI.

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