

Literacy and Education: Fifth Release From the 1961 Census of Pakistan

by

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This review of the Literacy and Education *Bulletin*¹ of the 1961 Census is fourth in the series of review articles published in this journal². The *Bulletin* under review forms a part of the interim report on the characteristics of the population of Pakistan. It gives information on the number of illiterate and literate persons by age and sex for rural and urban areas on division and district basis; illiterate and literate population in selected cities and towns; and the educational levels attained by the literate population by age and sex for divisions and districts. Relevant statistical notes and statements precede the tables in the *Bulletin*.

The objective of this review is to describe the meaningfulness and significance of literacy statistics. To this end, a distinction is made between formal and functional levels of literacy. Comparisons of the 1951 and 1961 census figures are undertaken to indicate the progress of literacy and education during the past decade with reference to the effect of intercensal rate of population growth on such progress. Certain questions regarding the reliability of data are raised, which emphasize the need for caution in the interpretation of literacy statistics.

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1 Government of Pakistan, *Population Census of Pakistan, 1961. Literacy and Education. Census Bulletin No. 4.* (Karachi: Office of the Census Commissioner, Ministry of Home Affairs, September 1962).

2 The previous reviews in this series were:

Karol J. Krotki, "First Release from the Second Population Census of Pakistan, 1961", *Pakistan Development Review*, Vol. I, No. 2, Autumn 1961, pp. 67-77.

M. Sanaullah, "Second and Third Release from the Second Population Census of Pakistan, 1961", *Pakistan Development Review*, Vol. II, No. 1, Spring 1962, pp. 106-113.

Karol, J. Krotki, "Population Size, Growth and Age Distribution: Fourth Release from the 1961 Census of Pakistan", *Pakistan Development Review*, Vol. III, No. 2, Summer 1963, pp. 279-305.

Criterion of Literacy

In most discussions of educational status, illiteracy and literacy are treated as dichotomous variables following their conventional definitions in terms of the inability or ability to read and sometimes to write. The conventional criterion of literacy as such has no reference either to the specificity of the content, or, to the standard of efficiency required in the use of reading and writing skills. It fails to distinguish between the literate persons according to the level of literacy which may vary from the full (*i.e.*, including comprehensive understanding) ability to read and write in general to the ability merely to recognize and sign one's name, and therefore, does not warrant precise quantitative analysis unless some operational and more meaningful dividing line is drawn between literates and illiterates.

A review of the operational definitions of literacy used in different censuses and surveys shows several variations of the concept according to the place, time, and purpose for which data are obtained, and the insight of those responsible for data collection. The criteria to classify a person as literate in the population censuses of various countries during the decade 1945-54, for example, varied from the "ability to read"—regardless of the content to be read and degree of understanding—to more definite requirements of the "ability to read and write with understanding a simple statement"³. In view of the difficulties in international comparisons of data caused by the incomparability of definitions, the United Nations Population Commission recommended for use in national population censuses a uniform criterion in terms of the "ability both to read with understanding and to write a short statement on every day life in any language"⁴. By way of further clarification of the requirements of this test, the recommendations state that a person capable of reading only, or capable of reading and writing figures and his name only, should be considered illiterate.

Apart from the influence of any conscious and unconscious bias which may arise with such sensitive questions, there is the problem of validity of literacy information obtained through the use of a formal definition such as recommended by the UN Population Commission. If statistics on literacy and education are to be effectively utilized for purposes of setting up or developing programmes for economic and social development in general and educational programmes in particular (the usually stated reason for obtaining such information), they should provide datum not on the mere ability to read and

³ United Nations, "Demographic and Social Characteristics of the Population", *Handbook of Population Census Methods*, Vol. III. (New York: Statistical Office of the United Nations, 1959), pp. 25-30.

⁴ *Ibid.*, p. 31.

write with understanding but also on such levels of attainment in these skills which enable an individual to function effectively in community life. According to the UNESCO Committee of Experts on Literacy "a person is literate when he has acquired the essential knowledge and skills which enable him to engage in all those activities in which literacy is required for effective functioning in his group and community, and whose attainments in reading, writing and arithmetic make it possible for him to continue to use these skills towards his own and the community's development"⁵. The Committee recommends that in quantitative terms, the standards of attainment required for effective functioning be "equated to the skills of reading, writing and arithmetic achieved after a set number of years of primary or elementary schooling"⁶. Viewed from this angle then, the test of the ability to read and write with (some) understanding is not an adequate test of literacy, or more precisely, of functional literacy. The completion of a certain number of years of schooling is required for the measurement of the latter.

In the 1951 Census of Pakistan, literacy was defined as the "ability to read any language in clear print"⁷ without reference to the understanding of the text. Compared with the definition used in the censuses of pre-Partition India, which required the possession of "ability to read and write a simple letter in any language"⁸ for eligibility to the literate category, this definition underwent a considerable decline in standard. In consequence, large numbers of persons classified as literates according to the 1951 definition would be treated as illiterate under the current international standard recommended by the Population Commission⁹.

The 1961 Census marked a significant improvement in the literacy definition and classified a person as literate on the basis of the "ability to read a simple letter in any language with understanding"¹⁰. While the criterion of a

⁵ Definition agreed upon by the UNESCO Committee of Experts on Literacy at its meeting in Paris in June 1962. See, A. H. Kardar, "Primary Education in Pakistan—II", *Pakistan Times*, March 6, 1963, p. 7.

⁶ *Ibid.*

⁷ E. H. Slade, *Census of Pakistan, 1951*. Vol. I. *Pakistan. Report and Tables*. (Karachi: Manager of Publications, 1955), pp. 8-10.

⁸ *Ibid.*, p. 77.

⁹ *Handbook of Population Census Methods*, Vol. III, *loc. cit.*

¹⁰ *1961 Census Bulletin No. 4*, *op. cit.*, p. iii. It is unfortunate that this definition has a different wording on page 159 of the same Bulletin.

The 1961 definition was administered in the field by asking three questions:

- i) Are you able to read and write a simple letter? If so, in what languages?
- ii) Are you able to read with understanding but not write? If so, in what languages? (for those who answered 'no' to the first question).
- iii) Are you able to read the Holy Quran without understanding? (for those who answered 'no' to the preceding questions).

Presentation of separate tabulations of the answers to these questions helps to distinguish between three different levels of literacy.

'simple letter' is not unambiguous, the change in the definition is commendable, although viewed from the perspective of international standard, some persons qualifying as literate in this test would be semi-literate in eyes of the U.N. recommendations¹¹. The number of semi-literates presented separately from literates in Table 1 of the *Bulletin* is useful additional information.

It may be added here that contrary to the 1951 pattern, the education data from the 1961 Census have been tabulated by single years of schooling up to matriculation. This provides valuable detail on the subject and makes possible the application of the test of functional literacy.

Levels of Literacy and Their Significance

According to the 1961-census definition, Pakistan had a literacy rate of 19.2 per cent of the population aged 5-and-over. Because of the difference in definitions, this rate cannot be directly compared with the 1951 rate which was 22 per cent. The total number of literates in 1951 included many persons who could only read without understanding. Such literates were excluded by definition from the 1961 literate group. Unfortunately, the number of persons who were able to cross the illiteracy bar in 1951 by only being able to read without understanding cannot be separated from those who could read with understanding. Thus, it is not possible to exclude readers without understanding from the total 1951 literate group so that the remainder could be compared with the 1961 literates. However, if we assume that an overwhelming majority of the 1951 readers "without understanding" consists of the readers of Holy Quran (this is not unwarranted considering the size of this group—5.7 million—in 1961), we can make 1961 roughly comparable with 1951 by combining the Quran readers in 1961 with the other literates. By doing that the number of literates in 1961 is raised from 14.3 million to 20.0 million and the literacy percentage from 19.2 to 26.8, with the latter showing a positive difference of nearly 5-per-cent points over the 1951 level of literacy. It will be noted that even the application of this crude criterion leaves nearly three-fourths of the population aged 5-and-over illiterate.

Comparability with the 1951 definition is more a formal than meaningful point. Reference to the flaws in the 1951 definition has already been made. The minimum qualification for literacy according to this criterion is equal to illiteracy in terms of the current standards recommended for international usage. It will, therefore, be more meaningful to see the number of persons who could both read and write at the time of the 1951 and 1961 Censuses. Both the censuses distinguish the literates able to read and write from lower-level literates, although the correspondence between the categories is not exact.

¹¹ *Handbook of Population Census Methods*, Vol. III, *loc. cit.*

The results of the comparison have been shown in Table I. The difficulties of the comparison and the importance of the resulting figures necessitate the lengthy footnote to the table. The percentages for East and West Pakistan in the two censuses indicate a greater improvement of literacy levels in West Pakistan than in East Pakistan between 1951 and 1961, although the latter continues to have a higher level of literacy.

TABLE I
PERSONS^a ABLE TO READ AND WRITE AS PERCENTAGE OF
POPULATION 5 YEARS AND ABOVE FOR PAKISTAN AND
PROVINCES, 1951 AND 1961^b

	1951	1961	Increase
Pakistan	14.0 (8,852)	17.5 (13,032)	3.5 (4,179)
East Pakistan	18.8 (6,753)	19.9 (8,278)	1.1 (1,525)
West Pakistan	7.6 (2,100)	14.4 (4,755)	6.8 (2,655)

Source: *Census of Population, 1951*, Vol. 1, Table 9-B, pp. 9-21.
Census of Population, 1951, Census Bulletin No. 5, Part I, pp. 1-2,
and Part II, Table 4, pp. 2 and 3.
Census of Population, 1961, Census Bulletin No. 4, Table 1, pp. 2
and 3 and Table 3, pp. 160 and 242.

a) In parentheses are given absolute figures in thousands,

b) *West Pakistan*

In 1961 the number of informally educated persons (574,256) is close to the number of those who can read only (625,789). It has, therefore, been assumed for the purposes of 1951 that subtracting those informally educated (3,002,634) is a good approximation to *readers only*. The subtraction of *readers only* is necessary to ensure comparability with the 1961 *readers and writers* needed for this table. The high figure of informally educated in 1951 is due to the inclusion of the Holy Quran readers, who in 1961 were excluded both from informally educated and *readers only*.

East Pakistan

The 1961 approximate equality of *readers only* and informally educated persons experienced by West Pakistan does not hold good in East Pakistan. In 1961 the number of informally educated persons (1,450,915) was more than double the number of those who could read only (697,634). Thus, the substitution of *readers only* by the informally educated persons in 1951 (4,373,015) would have doubled the figure of *readers only*. To avoid this error, the number of persons able to read only in 1951 was assumed to be equal to the 1961 proportion of *readers only* to those informally educated. In other words, the estimate assumes that the proportion of *readers only* relatively to those informally educated was identical in 1951 and 1961. The estimate has been calculated according to the following formula:

$$R \& W_{51} = L_{51} - \left(\frac{R_{61}}{IE_{61}} \cdot IE_{51} \right)$$

where

- $R \& W_{51}$ = estimate of persons able to read and write in 1951 (6,753,131);
 L_{51} = census-reported number of "literate" in 1951 (8,855,579);
 R_{61} = census-reported number of "readers only" in 1961 (697,634);
 IE_{61} = census-reported number of persons informally educated in 1961 (1,450,915);
 IE_{51} = census-reported number of persons informally educated in 1951 (4,373,015)

In a previous review article published in this journal, a different method of calculation had also yielded higher rates of literacy progress for West Pakistan, and it had been estimated that with the continuation of similar levels of improvement as experienced in the 1951-1961 decade, West Pakistan will catch up with the literacy level of East Pakistan in 14 years at which time the percentage of literacy will be 28 in both provinces¹².

A notable feature of the literacy statistics of Pakistan is the large size of the literate group without formal schooling. In 1961, there were 2.03 million of such cases constituting 14 per cent of the total literate group. In the absence of adequate schooling facilities, the existence of informal arrangements of learning is a great asset. However, the level of performance under such informal arrangements in Pakistan is perhaps of doubtful quality. The reports of literacy in this category may, therefore, be subject to greater bias than in the literacy arising out of formal schooling. If we separate the literates without schooling from the total, the percentage of literacy in 1961 reduces to 16.5 for the population aged 5-and-over.

Let us now move further on the continuum of literacy towards more meaningful forms of literacy. Further refinements of the difference between literates and illiterates will be in order. One might question whether those with one or two years of schooling, or even those with three or four years of schooling, should be included among functional literates. This skepticism seems particularly justified when we apply the criterion of proficiency in reading, writing and arithmetic. In the beginning years of school, these skills are closely confined to the mastery of specific class textbooks with little development of transfer skills to reading and writing in general. It may, therefore, be regarded as nominal, rather than effective or functional, literacy. Even the test of nominal literacy, *i.e.*, the ability to read and write from a textbook may be legitimate only for those currently in schools or those who left school recently. Adults who may have spent two or three years at school one or more decades ago are likely to have lost that proficiency with the lapse of time, if, as will normally be the case, they had no occasion to use or improve these skills. In applying the criterion of functional literacy, all literates with less than five years of schooling will be excluded from the total¹³.

¹² "First Release from the Second Population Census of Pakistan, 1961", *op. cit.*, 6.

¹³ Since the usual age of completing five grades of school is ten years in Pakistan percentages of functionally literate males and females are calculated out of the population ears and over.

TABLE II

NUMBER^a AND PERCENTAGE OF FUNCTIONAL LITERATES^b FOR POPULATION
10 YEARS AND ABOVE IN PAKISTAN BY SEX, 1951 AND 1961

	Both sexes	Male	Female
1951	8.6 (4,483)	12.6 (3,548)	3.8 (935)
1961	9.4 (5,494)	14.9 (4,666)	3.1 (828)

Source: 1961 Census Bulletin No. 4, Table 3, p. 159;
Population Census of Pakistan, 1951. Vol. I, *op. cit.*, Table 9-A, pp. 9-6

- a) Absolute numbers are stated in parentheses in thousands.
b) Literate persons with five or more years of schooling.

To compare the persons with five or more years of schooling in 1951 and 1961, it should be remembered that the question on years of schooling was not asked in the same manner in the two censuses. In 1951, the question was worded as: "For how many years have you attended school or college?" And, the replies were recorded to the nearest whole number of years¹⁴. In 1961, information on this subject was obtained by asking the highest grade passed. Therefore, the comparison between the two sets of figures is not exact. With this qualification, we may compare the figures in Table II which indicate a progress of less than one percentage point in functional literacy during the last decade. Viewing this pace of improvement in terms of the nine-fold increase in educational expenditure during the same period, one can visualize the volume and the cost of the task ahead¹⁵.

Comparison between the levels of functional literacy among males and females shows that while male literacy showed an improvement of over two percentage points, the level of female literacy declined by 0.7 percentage points. This decline is difficult to believe in view of the increasing emphasis on female education, and needs further investigation. Statistics on female enrolments at various school levels during the decade under reference are not available to the writer. However, the enrolments at primary level alone during the years

¹⁴ *Census of Pakistan, 1951. Vol. I. op. cit.*, p. 9-6.

¹⁵ A. H. Kardar, "Primary Education in Pakistan—I", *Pakistan Times*, Lahore, March 5, 1963, p. 5.

It is difficult to see how Kardar arrived at the nine-fold increase. He explains it *in* this article nor in the following one. When one compares the Central and Provincial Governments' allocations to education for 1950/51 (in lakhs of rupees: 60, 209 and 429 for C, E, and W respectively) with the 1960/61 allocations (255, 530, 1219), the increase is more than three-fold.

1950-59 indicate an increase of 105 per cent¹⁶. Except for the last grade of primary school level, these enrolment figures are not directly relevant to our frame of reference. Reference to the improvement at this level has been made on the assumption that some of the newly enrolled students must have continued to higher levels of education. The available figures on enrolments at higher levels for individual years support this assumption¹⁷. Hence, the decline in the functional level of literacy among females according to the census figures remains a puzzle.

Perhaps the larger number of functionally literate females in 1951 is a result of greater inflation of the years of schooling due to difference in the administration of the education question. Since the data on years of school completed in 1951 are available only for the "under 10 years" and "10 years or over" age-groups, this statement cannot be verified in detail except for the former group. In the 1951 Census, some 57,000 girls less than 10 years old were reported to have completed five or more grades of school out of the total of 501,000 in this group who had any schooling¹⁸. In the 1961 Census, only 12,650 out of 499,000 are reported to have had five or more years of schooling¹⁹. Assuming that it is impossible for anybody aged less than ten to complete more than four years of schooling, the misclassifications described above in the case of girls involve 11 per cent of all literate girls under ten in 1951, but only 2 per cent in 1961! Among the boys in this age group, the level of similar misclassifications is 10 per cent and 3 per cent in the two censuses respectively. If such differences persist in the higher age-groups, which constitute the universe of our analysis of functional literacy, these may be responsible for yielding a higher percentage of females having 5 or more years of schooling in 1951.

The apparent decline in the proportion of functionally literate females may be due in part to the better coverage of females in the 1961 than in the 1951 Census as reflected in a decline of 2 points in the masculinity ratio (from

¹⁶ O. H. Steenwinkel, *Some Data on Primary Education in Pakistan*. (Sheikhupura, West Pakistan: United Presbyterian Church of Pakistan, Adult Literacy Programme, April 1963). Mimeographed.

¹⁷ Government of West Pakistan, *Educational Statistics for West Pakistan, 1960-61*. (Lahore: West Pakistan Bureau of Education), Tables 25 and 36, pp. 48, 62. Between the years 1955-60, the enrolment of females in middle and high schools shows an improvement of 27 per cent and 60 per cent respectively.

Government of East Pakistan, Education Directorate, *Annual Statistical Report on Public Instruction for the Year 1957-58*. (Dacca: East Pakistan Government Press, 1961), p. 22.

(Female enrolments at all levels of education in 1957/58 were higher by 3.5 per cent over the 1956/57 level.)

¹⁸ *Census of Pakistan, 1951*. Vol. I. *op. cit.*, Table 9-A, pp. 9-7.

¹⁹ *1961 Census Bulletin No. 4, op. cit.*, Table 3, pp. 160-61.

113 in 1951 to 111 in 1961). If the previous omissions of women were selective of illiterates, as might well be the case, this would result in additional reduction of the proportion of literate females.

The comparison between provinces, in terms of functional literacy, indicates that East Pakistan has a lead in literacy only at the lower levels. In the comparison of five or more years of schooling, West Pakistan has 10.1 per cent of the population ten years and over literate while East Pakistan has a percentage of 7.8 in this category.

TABLE III

NUMBER^a AND PERCENTAGE OF FUNCTIONAL LITERATES^b FOR POPULATION 10 YEARS AND ABOVE IN EAST AND WEST PAKISTAN, 1961

	Total	Male	Female
East Pakistan	7.8 (2,525)	12.9 (2,190)	2.2 (335)
West Pakistan	10.1 (2,969)	15.1 (2,476)	4.1 (497)

Source: 1961 Census Bulletin No. 4, op. cit., Table 3, pp. 160 and 242.

a) Absolute numbers are stated in parentheses in thousands.

b) Literate persons with five or more years of schooling.

Thus depending on where the demarcation line is drawn on the continuum from formal to functional literacy, the picture changes both with reference to the overall literacy level and the relative position of the provinces. The application of preceding tests of literacy shows a variation in the literacy level of Pakistan from 26 per cent according to the crude criterion of ability to read to 9 per cent when the more significant criterion of effective or functional literacy is used. Our assumption has been that the application of the latter test tends to increase the validity of the data on this subject by reducing the effect of individual variations in the concept of literacy. The test applied is by no means final. The purpose of the analysis attempted is only to introduce the concept of treating literacy and illiteracy as a continuum rather than an artificial dichotomy. The reader may find the definition of functional literacy, *i.e.*, 5 or more years of schooling used in this review either too strict or too lenient, in which case he may want to experiment with a lower or higher limit

of schooling. It is to the credit of the census organization that presentation of the schooling data by single year makes such experimentation possible.

Besides the gains in validity, the reliability of literacy data may also be expected to improve through the application of functional literacy criterion as the reports on years of schooling are likely to be more consistent than the reports on mere ability to read and write. However, this hypothesis needs to be substantiated through actual field tests such as applied in Yugoslavia. The Yugoslav experiment on reliability checks of census literacy data indicated errors amounting to 33 per cent of the initial literacy reports²⁰.

Literacy in Age Groups

In terms of the 1961 definition, literacy levels in different age groups ranged from 10.7 per cent in the 5-9 year group to 30.7 per cent in the next age group of 10-14 years with the 15-19, 20-24, and 25-and-over groups falling inbetween. It would have been useful to break the last group which has a literacy percentage of 17.7 into a few more categories to see the pattern of decline in literacy at higher ages.

The explanations given in Statistical Note 1.7 of the *Bulletin* for the low literacy of the 5-9 years old group in terms of the late entries into schools, a high rate of drop-out after the first one or two years of school, and the failure of the first few years of school in making a child literate are plausible. The figures in Table 3 of the *Bulletin* indicate an attrition of over 60 per cent (from 668,000 to 257,000) between the number of children 5-9 years of age who had completed one year of school and those who completed three years. While this steep falling-off in numbers is not inconsistent with the presumption that children attending school, even if on their first day at school, were recorded by census enumerators as literate, and points to the recently enlarged recruitment into the first and second years, it seems to support in part the drop-out hypothesis. A study of the characteristics of the early-leavers and the factors taking them out of school would provide valuable information to the educationists for the amelioration of the situation.

The lower literacy-level of those aged 20 and over is understandable in terms of the lower emphasis on education in the past. The two intermediate groups, *i.e.*, 10-14 and 15-19 rank highest in literacy. In terms of functional literacy, it is age groups 15-19 and 20-24 which show the highest literacy.

²⁰ M. Macura and V. Balaban, *Yugoslav Experience in Evaluation of Population Census and Sampling*. (Beograd: Statistical Institute, 1960). Mimeographed.

Obviously, the 10-14 age-group has still too many youngsters with only five or less years of schooling.

TABLE IV
NUMBER* AND PERCENTAGE OF LITERATES BY AGE IN PAKISTAN, 1961

Age group	1961 criterion ^b	Functional criterion ^c
10-14	30.7 (2,597)	9.3 (792)
15-19	27.3 (2,030)	15.6 (1,161)
20-24	24.5 (1,687)	13.2 (916)
25+	17.7 (6,315)	7.3 (2,625)

Source: 1961 Census Bulletin No. 4, op. cit., Table 3, p. 160.

- a) Absolute numbers are stated in parentheses in thousands.
- b) Able to read with understanding.
- c) Literate with five or more years of schooling.

In each age group males show a higher percentage of literacy than females. These differences show a consistent narrowing of the gap from higher to the lower age-groups pointing to the comparatively greater emphasis on female education in recent years. Nevertheless, as indicated in a preceding section of the review, this has not prevented a decline in the functional level of literacy among females for other reasons.

Rural-Urban Literacy

On the basis of the data from the 1961 Census, the urban population which is equal to 13 per cent of the total population has a literacy rate of 35.8 per cent according to the census definition. The rural population (87 per cent of the total population) is 16.6 per cent literate. The figures on years of schooling

completed are not given separately for rural and urban areas in *Census Bulletin No. 4*. Therefore, the functional literacy test cannot be applied in this instance. It can be presumed, however, that the rural areas would show a minimum level of literacy by the functional measuring rod. If in the final tables, data on schooling are provided for the rural-urban sectors, it will be possible to test this hypothesis.

If similar data are made available for selected cities, it would also be interesting to see if the application of the effective literacy criterion leads to any change in the ranks of cities and towns included in Table 2 of the *Bulletin*. The ranking of these cities and towns presented in Statement 5 appears strange as it gives the 15th and 16th positions to educational centres like Karachi and Lahore²¹. Karachi district gets the highest position in district levels of literacy, but the City of Karachi goes down to the 15th position. No comment regarding the reasons for the low literacy-rank of the two largest cities is made in the Statistical Note preceding Statement 5. Perhaps the influx of migrants from rural areas is responsible for increasing the proportion of illiterate population in these cities. The validation of this statement, however, would require an elaborate study of the migration rates for these cities and the characteristics of migrants.

The need to investigate the decline in the number of literates in certain divisions and districts of Pakistan was indicated in the first review in this series²². Some educationists have suggested conversationally that redrawing of the boundary lines of districts and divisions may explain this phenomenon in some instances at least. For example, the transfer of certain parts of D.I. Khan division to Sargodha division may be responsible for the decline in the number of literates in the former division. But this is conjectural. An authenticated answer would require an examination of the trend in school enrolments and educational budgets in the areas concerned during the last decade.

Levels of Education

As in the case of literacy, the questions on education also underwent a notable upgrading in the 1961 Census. The 1951 Census asked questions on current school-attendance, total number of years in school, and the level to which the education of an individual had progressed without reference to the field of education. Levels of education were recorded in terms of primary, middle, matriculation, degree and higher degree. In the 1961 Census, the questions on current school-attendance as well as on completed education were

²¹ On account of a serious printing error, the City of Karachi is actually combined with Kohat Municipality in Statement 5 of the *Bulletin*, and has the 14th position as such.

²² "First Release from the Second Population Census of Pakistan", *op. cit.*, p. 76.

extended by reference to the field of education. The information on completed education was recorded by checking the highest grade passed in general or professional education. The entries were made in single years up to matriculation and in terms of the various levels of college education above matriculation. These improvements enhance the utility of data greatly. The figures from this census will serve as a benchmark to evaluate the progress in the fields of general and technical education in the future decades.

In the interim report under review, education status has not been classified by field of education. However, the distribution of literates according to the highest grade of school passed is available. To compare this distribution with the 1951 data, the "Quran readers" are again added to the total number of literates to get the percentage of literates at various levels of education. Since the classification of educational attainments presented for 1961 is different from the 1951 classification, it is not possible to compare the various levels of education in detail. Persons with less than matriculation standard of education have therefore been grouped together.

TABLE V

LEVELS OF EDUCATIONAL ATTAINMENTS IN PAKISTAN, 1951 AND 1961

Levels of education	1951		1961	
	Number (in '000')	per cent	Number (in '000')	per cent
Total literates ^a	13,958	100.0	20,011	100.0
Literates without formal schooling or education less than matriculation	13,327	95.5	19,009	95.0
Matriculation ^b	521	3.7	884	4.4
Degree and above ^c	109	0.8	117	0.6

Source: *Census of Pakistan 1951*, Vol. I. Table 9-B. pp. 9-21, 9-22.
1961 Census Bulletin No. 4, op. cit., Table 3, p.160.

a) Able to read with understanding.

b) Includes intermediates.

c) Includes oriental.

Table V shows that both the 1951 and 1961 distributions are characterized by a wide base which is indicative of a flat educational pyramid. During the decade under reference, there has been a very slight improvement (0.5 per cent)

in the proportion of persons who completed matric or higher level of education. But, a comparison within the matric-and-above group indicates that the improvement is confined to the matriculates only. The proportion of degree holders shows a decline by 0.2 per cent points (by a quarter) over the past decade.

The latter fact is surprising in view of the attention being given to higher education. On closer examination (see, Table VI) it appears that the decline in the number of graduates (persons who have completed four or more years of college education after matriculation) is due to a decline in the number of post-graduates in East Pakistan.

TABLE VI

NUMBER OF GRADUATES AND POST-GRADUATES IN 1951 AND 1961
AND THEIR VARIATION IN PAKISTAN AND PROVINCES

	Graduates			Post-graduates		
	1951 (...in thousands...)	1961	Per cent of vari- ation ^a	1951 (...in thousands...)	1961	Per cent of variation ^a
Pakistan	86	82	-4.6	23	31	39.6
East Pakistan	41	28	-32.3	8	7	-12.0
West Pakistan	45	54	21.3	14	24	68.6

Source: 1961 Census Bulletin No. 4, *op. cit.*, Statement 10, p. xx.

^a) Percentages were calculated on the original, *i.e.*, unrounded figures.

For all of Pakistan, the number of graduates in 1961 is only about 95 per cent of their number in 1951. The decline took place in East Pakistan where the number of graduates in 1961 is only two-thirds of the 1951 number. Even in West Pakistan, the number of graduates increased by only 21.3 per cent which is less than the increase in total population. In the case of post-graduates in East Pakistan there was a decline of 12 per cent in their number, whereas the number of post-graduates in West Pakistan increased by 69 per cent. For Pakistan as a whole, the number of post-graduates shows an increase of 40 per cent, the large growth of this group in West Pakistan population, thus, cancelling the drop in East Pakistan. Reasons for the large decline in the number of graduates and post-graduates in East Pakistan can be looked for in the low rate of increase experienced by the Hindus, lower than in any other previous intercensal period²³. Present-day East Pakistan has always been an area of heavy and persistent emigration, particularly by Hindus. The 1951-1961 period must have witnessed an intensification of this historical process. It will

²³ "Second and Third Release from the Second Population Census of Pakistan, 1961", *op. cit.*, p. 111.

1957/58 as compared to the preceding year. On the other hand, the number of students in Dacca and Rajshahi Universities decreased by 4.3 per cent (from 9,536 to 9,127) during the same period²⁵. Another factor that is likely to have supplemented the diversions from general college education to technical schools of less than degree level may have been the expectation of the introduction of three-year B.A. course in the later part of the decade, although, the actual introduction of this change did not take place until 1961, and a reversion to the old two-year course was made soon after.

- iv) Most important in this context, however, are the anomalies in the age data of 1961 Census. The preceding review in this series²⁶ has suggested the possibility of a minimal shortage of 400,000 youngmen and 250,000 women in the age bracket 20-24. This shortage has been variously attributed to migrations, omissions, and misclassifications by age. The latter fact, *i.e.*, misclassifications by age would not explain the lack of educated persons; the omissions of persons in the Census would not help much either since the factor would tend to operate in 1951 also. Therefore, the migration hypothesis seems to be the most plausible explanation. It would be in line with sociological theory to expect the more educated and trained individuals to be more mobile than others for reasons of their being equipped for employment. In line with some press reports regarding the movement of East Pakistani Hindus to India, some evidence of such migration seems to exist in the increase in proportion of Muslim population in this province during the past decade (from 76.8 per cent in 1951 to 80.6 per cent in 1961). An investigation into this phenomenon may provide at least a partial explanation of the decline in the graduates and post-graduates of East Pakistan. Another guess is that this migration is only interwing migration bringing East Pakistanis to West Pakistan, hence showing a decline in the higher educational levels in East Pakistan and an increase in West Pakistan. However, it is doubtful whether the probably small numbers involved could do the big job expected from them to justify this explanation.

Education Among Males and Females

The figures in Table 3 of the *Bulletin* clearly bring out the disparity between levels of male and female education in the country. Women constitute one-

²⁵ *East Pakistan Annual Statistical Report, op. cit.*, pp. 16-20.

²⁶ "Population Size, Growth and Age Distribution", *op. cit.*, pp. 292.

fifth of the total number of 12.3 million educated persons, *i.e.*, individuals with at least one year of schooling. It is encouraging as previously suggested to note that the disparity is less in the younger age groups. Educated females in the 5-9 years group are nearly a third of the total as compared with 15 per cent in the 25-and-over group. This bespeaks of the greater realization of the needs for female education and points partially to the ground still to be covered in this respect. Comparison of the average amount of schooling among 10-year-and-older females who had any education indicates that there has been an improvement from 4.1 years to 4.3 years only during the last ten years²⁷.

In terms of interwing comparisons, West Pakistan occupies a better position in female education at all levels above primary school. The difference between the two wings in this regard becomes greater as we move to the Matriculation and higher levels. At the degree level, West Pakistan has 15 female graduates per 100 male graduates as compared to 4.4 in East Pakistan²⁸. Besides the possible reasons offered for the shortage of highly educated persons in East Pakistan in the preceding section, the difference in the educational facilities at this level may also be responsible for the disparities. According to the figures available to this reviewer, East Pakistan had 10 colleges for females as compared to 23 in West Pakistan in the year 1957/58²⁹. However, this argument could explain the difference in levels prevailing in 1961. It cannot explain the very marked differential change over the intercensal period in East Pakistan. In any case, up to 1951 East Pakistan was not doing too badly in spite of the smaller number of colleges.

Separate figures on education of men and women in urban and rural areas are not presented in the present *Bulletin*, but fortunately such classification is being provided in the *District Census Reports*. This will facilitate a study of the rural-urban differences at various levels of education on district basis, when all the district census reports become available.

Validity of Education Figures

At the beginning of this article, reference was made to the possibility of upward bias in reporting educational data. To reduce such misreporting in the 1961 Census, the education of an individual was asked in terms of the school grades completed rather than number of years attended. The extent

²⁷ a) *Census of Pakistan, 1951*. Vol. I. *op. cit.*, Table 9-A, p. 9-7;

b) *1961 Census Bulletin No. 4*, *op. cit.*, Table 3, p. 160.

²⁸ *1961 Census Bulletin No. 4*, *op. cit.*, Statement 13, p. xxiii.

²⁹ a) *East Pakistan Annual Statistical Report*, *op. cit.*, p. 23.

b) *Educational Statistics for West Pakistan, 1960-61*, *op. cit.*, p. 28.

to which this has been effective in recording the correct educational attainments is not known. However, figures in Table 3 of the *Bulletin* can be used for a preliminary test of the validity of these statistics.

The minimum age for entry into school in Pakistan is 5 years. With some exceptions, the first year, or at least part of it after entrance in school, is spent in kindergarten class which is not a part of the five primary grades. Hence, a child ordinarily finishes primary school at the age of 10-11 years. That is why in the *Second Five Year Plan* the age limits 6-11 are regarded as the primary school age category. According to Table 3 in the *Bulletin*, 47,000 children of ages 5-9 years had completed five or more grades of school. Double promotions may sometimes enable brilliant students to complete the primary school at an earlier age. But, these instances are not so common as to give a number of the above magnitude. Even if the completion of five grades at the age of 9 is accepted as a possibility, the attainment of six or seven grades is highly improbable. Yet, nearly 3,000 children are reported to have reached those levels when they were nine years old or less.

Moving to the next age group of 10-14 years, one finds that over 6,000 members of this group had completed Matriculation or higher levels of education. Particularly unbelievable in this instance is the attainment of 72 individuals who reportedly passed intermediate and degree examinations by 15 years of age. Another 700 individuals are shown to have achieved post-graduate levels of education at 15-19 years of age. In total either due to the misreporting of age or inflation in reported education attainments some 54,000 (constituting nearly one per cent of the educated persons between 5-19 years of age) persons appear to be exceptionally brilliant and have surpassed the educational attainments expected for their age. It must be appreciated that that type of (sorting?) errors, resulting in, say, retired senior civil servants aged 18 or large numbers of widowers aged 15 in one district, occur in the best of censuses. Whether such anomalies are symptoms of random errors working both ways on the age pyramid or they are directionally biased additions to ages 5-9 cannot be said with certainty but the finding would influence our confidence in the validity of the education figures.

School Attendance

The *Bulletin* according to its introduction has been published to provide "more important and popular information wanted by educationists and demographers", yet it has no data on school attendance, although the immediate interest of educationists in such information can hardly be doubted. According to a privileged source³⁰, however, there were 521 million persons attending

³⁰ Siddiqur Rahman, "Literacy and Education in Pakistan, 1951-61". Cyclostyled copy of a paper delivered to the Sixth Pakistan Statistical Conference in March 1963 at Lahore.

school at the time of the 1961 Census. They constitute 42 per cent of the total educated group, again assuming that all school children from the beginning of their educational career, that is from the very first day at school, have been treated by census enumerators as literate. This source indicates that the percentage of population 5 years and over attending school has changed from 6.8 in 1951 to 7.0 in 1961. In a comparison of the rates of progress in school attendance with population growth, it is shown that during the 1951-61 decade the strength of enrolled pupils and students increased by 22.3 per cent while the population 5 years and over grew by 19.2 per cent. The greatest absolute increase in school attendance was experienced by 5-9 years group whose enrolment increased by 47.8 per cent. But a still higher rate of growth of this group (55.0 per cent) has led to a decline in the proportion of pupils. The percentage of pupils to all the children in this age group is 14.8 in 1961 as compared to 15.5 in 1951. The proportion of students above 10 years has slightly increased. Strangely enough the 14.8-per-cent school attendance at the primary level is only half of the percentage reported through registered figures and presents a puzzling discrepancy to anyone interested in knowing the true situation³¹. Part of this discrepancy can be attributed to the difference in the age group under reference in the two sets of figures, *i.e.*, 6-10 years in the registered figures as against 5-9 years in the census, but it is difficult to explain a fifty-per-cent lag due to this factor alone. An investigation directed to reconcile these statistics is vitally needed for the appraisal of the real position in respect of primary education. Referring to the census figures on this point, however, a comparison of the proportion of children 5-9 years of age attending school in 1951 and 1961 clearly indicates how the rapid rate of population growth is nullifying real gains in educational output. The situation for the future decade seems particularly alarming if we notice the difference in the base of the primary age group, *i.e.*, the size of the 0-4 years age-group between 1951 and 1961. The size of this group in the latter census is 45 per cent larger than its size in the first census. (sixteen million children 0-4 years of age in 1961 as compared to 11 million in 1951). Hence, the magnitude of the task for the educationists.

31. "Primary Education in Pakistan—I", *op. cit.*, p. 4.