# Institute of Vevelopment Aanagement

BOTSWANA'S PRIMARY SCHOOL SYSTEM:
A SPATIAL ANALYSIS

by

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### **FOREWORD**

From the beginning of its activities in 1974 the Institute of Development Management has been deeply interested in education in Botswana, Lesotho and Swaziland and in the present and potential role of education in development in these three southern African countries.

As a contribution to understanding the structure of education and of associated problems a spatial analysis was undertaken of the primary school system in Botswana. The IDM was encouraged to carry out this analysis by the National Commission on Education in that country as well as by its own experiences throughout the Region.

The results of this analysis by Dr. Neil Campbell of the IDM staff and by Mr. John G. Abbott an IDM Research Consultant, with initial assistance of Mr. Brian Eggner who also served as an IDM Consultant from January to March 1976, are presented in this research paper. Also included are additional notes on a survey of bursaries and secondary school places, Botswana's secondary school bursary system, access to secondary schools and a comparison of the 1975 Cambridge certificate examination results of boarding and day pupils in eight secondary schools. These additional studies were undertaken by Mr. Abbott and Miss Christine Fallert of the Commission Secretariate to confirm some of the findings in the original paper and to explore other issues relevant to this analysis of Botswana's primary school system.

It is hoped this paper will be found useful as a background for policy formulation and execution and will help to stimulate other studies in this critically important area of social and economic life throughout the Region.

George V. Haythorne Director

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### INTRODUCTION

### Statement of Purpose:

The intent of this paper is to examine the resource allocation within Botswana's Setswana medium primary schools in order to ascertain the efficiency and equity of the system in 1975.

### Methodology:

In 1975 there were 116,293 pupils enrolled in Botswana's state supported primary schools. Ninety-nine per cent of this enrolment was in the Setswana medium.

To accommodate the variation in urbanization throughout Botswana it is hypothesised that four levels exist and that they collectively form an economic and spatial hierarchy.

The three chief towns, Gaborone, Francistown and Lobatse were chosen to represent the senior level of the hierarchy. They each have acquired distinct urban characteristics. The new towns of Selibi-Pikwe and Orapa were not included due to their relative newness, specialised nature, and dynamic growth. Within this level of the hierarchy the sample consisted of eleven schools with a standard seven in 1971, and having in 1975 an enrolment of 12,010 pupils and 318 teachers.

The second level of the hierarchy was a fifty-five per cent random sample consisting of five district headquarters, drawn from the nine district headquarters of Maun, Kasane, Serowe, Molepolole, Mochudi, Ramotswa, Kanye, Tsabong and Ghanzi. Francistown, also a district headquarters, was excluded because of its previous selection. This sample consisted of twenty-eight schools with a standard seven in 1971, and having in 1975 an enrolment of 17,193 pupils and 499 teachers.

The third level of the hierarchy consisted of traditional villages with populations between 1,000 and 5,000 in 1971, exclusive of district headquarters. This sample comprised twenty-two communities with twenty-eight schools having in 1975 14,415 pupils enrolled and 390 teachers. Each of these twenty-eight schools had a standard seven in 1971.

The fourth level of the hierarchy consisted of forty-nine villages, an approximate 50 per cent sample of the 100 villages that had a population of less than 1,000 in 1971. In this sample there were forty-nine schools with a standard seven and having in 1975 an enrolment of 15,705 pupils and 490 machers.

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The total sample under consideration consisted of 40 per cent of Setswana medium primary schools. Fifty-one per cent of the Setswana pupils were enrolled in these schools in 1975.

To analyse the effective allocation of primary school resources a comparison was first made of the allocation of teachers and physical inputs at each level of the hierarchy. This was followed by a qualitative review of the existing education system as revealed in terms of the primary school leaving examination, examination results from repetition and places offered in secondary schools.

The criteria of settlement size used as an analytical variable in the hierarchy raised questions concerning the accuracy of the 1971 village population data. Following consultation with the Central Statistics Office concerning double counting it was concluded that at the time of the census in August 1971, those people residing in a particular village were considered to be in residence at that time and thus were included in the census of the village. The data used in this study are all drawn from official government statistics.

### TEACHER TRAINING AND QUALIFICATIONS

In 1975 there were 3,509 primary school teachers in Botswana. Of these 64 per cent were classified by the Central Statistical Office as "trained" implying they had at some time undergone a course of teacher training during their careers.

Over the years in Botswana there have been several teacher training courses each specifically orientated to a particular education level. The Elementary Training Certificate (ETC) course, which has been discontinued, was intended for untrained primary teachers having a standard seven school leaving certificate. In practice, however, it included a few individuals with the "old" standard six certificate (1) and others with a Junior Certificate (J.C.) or Matriculation (Matric). The ETC course consisted of three annual six week sessions at Francistown Training College followed in each year by ten months correspondence study.

A Primary Lower (PL) training course was conducted for candidates who had proceeded as far as secondary school, Form II, but who had not attempted the Junior Certificate. The three year P.L. course, which has been discontinued, was located at Francistown, Serowe and Lobatse.

<sup>(1)</sup> Before independence, Standard 6 was the final eighth year in the primary system. Standard Sub A and Sub B preceded Standard 1.

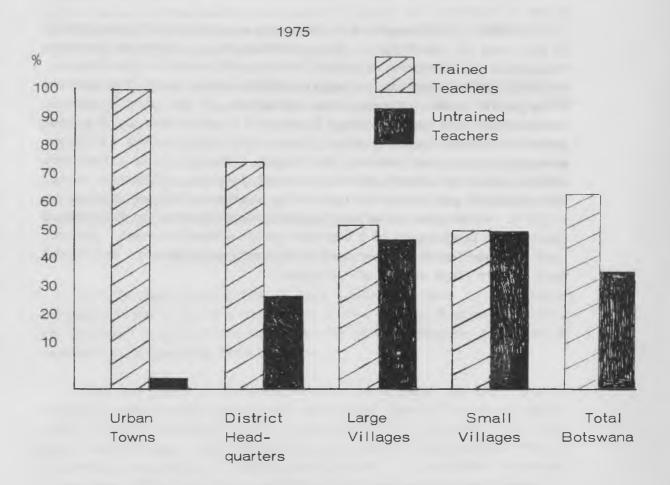
A Primary Higher (PH) course for those with a Junior Certificate was also of two year duration. It was subsequently discontinued.

The Primary Training Certificate (PTC) is currently the only primary teacher training course in Botswana. Admission to this two year course requires at least three years secondary school education or a Standard 7 pass and at least two years teaching experience.

In 1975, 1,278 teachers in Botswana were untrained representing 36 per cent of the total. The distribution of untrained teachers throughout the hierarchy is biased in favour of the senior urban places. In 1975, Table 1 records that approximately 50 per cent of the teachers in large and small villages were untrained, 27 per cent in district headquarters and approximately 2 per cent in urban towns. The most common untrained qualification group were those having a standard seven primary school leaving certificate (Tables 2 & 3). Teachers with a standard seven primary school leaving certificate alone, comprised 31 per cent of the total national primary teachers profession in 1975. Within the hierarchy the percentage distribution of untrained teachers in possession of a standard seven education was: one per cent in urban towns, 19 per cent in district headquarters, and 42 per cent in both large and small villages.

TABLE 1

# TRAINED AND UNTRAINED TEACHERS IN BOTSWANA AND LEVELS OF HIERARCHY: 1975



Source: Primary School Annual Returns, 1975, Central Statistics Office.

TABLE 2

PRIMARY TEACHERS: TRAINING AND QUALIFICATIONS, 1975

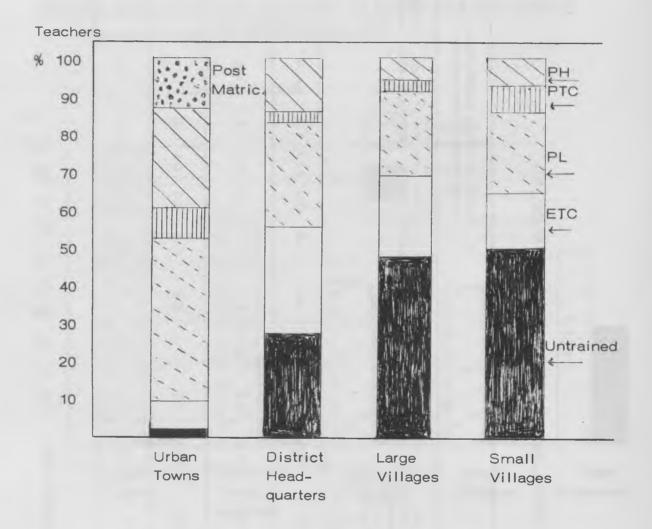
### Untrained Teachers by Qualifications Trained Teachers by Qualifications

as percentage of Total Teachers LEVELS OF STD. 7 J.C. MATRIC DEGREE TOTAL P.L. | P.L. + | P.L. + ETC ETC + PTC PH PH POST DEGREE + TOTAL TRAINED HIERARCHY UNTRAINED J.C. DSC/JC MATRIC MATRIC MATRIC DIPLOMA TEACHERS AS TEACHERS MATRIC PERCENTAGE OF AS PER-TOTAL TEACHERS CENTAGE OF TOTAL TEACHERS URBAN 0.3 1.0 0.6 0.3 2.2 6.9 1.0 33.0 8.4 0.6 7.2 22.8 5.2 11.7 97.8 1.0 TOWNS DISTRICT HEAD-19.4 3.8 3.8 0.2 27.2 24.6 2.2 24.5 4.4 3.8 | 12.1 | 1.0 0.2 72.8 QUARTERS LARGE 41.5 4.4 2.3 0.3 48.5 20.2 1.0 17.3 2.6 0.5 3.1 5.8 1.0 51.5 VILL AGES SMALL 42.4 6.1 1.2 49.7 15.3 1.2 17.8 2.7 0.2 5.7 6.8 0.4 0.2 50.3 VILLAGES

Source: Primary School Annual Returns 1975, Central Statistics Office.

as percentage of Total Teachers

TABLE 3
TEACHER QUALIFICATION BY LEVEL OF HIERARCHY, 1975



Source: Primary School Annual Returns, 1975, Central Statistics Office.

Considering the trained teacher category, elementary training certificate teachers (ETC) were a substantial 20 per cent of the total trained primary teachers in 1975.

Less than 2 per cent of ETC qualified teachers had a junior Certificate or a Matriculation. The majority of ETC teachers, those having a standard seven background, were found in the lower levels of the hierarchy. Conversely, the senior urban places had proportionally less ETC teachers in their schools. Statistically the percentage distribution of ETC teachers throughout the hierarchy in 1975 was: 7 per cent in urban towns; 27 per cent in district head-quarters; 20 per cent in large villages and 15 per cent in small villages. Excluding the ETC teachers from the total number trained, the percentage distribution of trained teachers in each level of the hierarchy was: urban towns 87 per cent, district headquarters 48 per cent, large villages 31 per cent and small villages 35 per cent.

The distribution of teachers with Primary Lower (PL) and Primary Higher (PH) training was similarly biased in favour of the more urban areas. Aggregating all PL trained teachers the percentage distribution of such teachers in each level was: urban towns 42 per cent, district headquarters 29 per cent, large villages 20 per cent and small villages 21 per cent.

Teachers with Primary Higher qualifications, as a percentage of total primary teachers in 1975, were: urban towns 28 per cent, district headquarters 13 per cent, large villages 7 per cent and small villages 12 per cent.

The above comparisons illustrate the disadvantage experienced in rural Botswana in terms of allocation of trained teachers. This is further accentuated when consideration is given to the pupil: trained teacher ratio (Table 4).

TABLE 4
PUPIL TEACHER RATIOS BY LEVEL OF HIERARCHY 1975

LEVEL OF HIERARCHY	PUPIL : TEACHER RATIO	PUPIL TRAINED TEACHER RATIO	
10			
Urban Towns	38	39	
District Headquarters	34	47	
Large Villages	37	72	
Small Villages	3₺	64	

Source: Primary School Annual Returns 1975, Central Statistics Office.

For example, in terms of pupil: teacher ratios only the small villages approximate the national average of 33:1. When viewed as pupils per trained teacher, however, the situation changes due to the preponderence of untrained teachers at the lower levels.

These marked differences will undoubtedly be matters for attention under the new unified teachers service policy.

### PRIMARY SCHOOL EQUIPMENT

Significant differences among the four levels of the hierarchy also appear in the availability of physical facilities for teaching purposes. Although several indexes might be used for this purpose the index selected was the presence of individual seats and desk tops. For ease in comparison all desks designated as double in the school statistical returns were multiplied by two and similarly those designated as triple Likewise all tables were assumed to were multiplied by three. accommodate four pupils and were counted as four units. Benches were computed as six to ten units according to the statistics classification. The total seat units in each level of the hierarchy were paired with desk tops and table units to indicate the number of complete sets of equipment in each level. The number of equipment sets were then compared with pupil enrolments in each level (Table 5). the exception of the senior urban places there were severe shortages of equipment in all other schools in the hierarchy. Urban towns had 7 per cent of their total pupils without equipment sets, district headquarters 54 per cent, large villages 56 per cent and small villages 46 per cent.

TABLE 5
SCHOOL EQUIPMENT DEFICIT BY HIERARCHICAL LEVEL, 1975

SCHOOL EQUIPMENT DEF	ICIT	BY HIERARCHICAL LEVEL, 1975
LEVEL OF HIERARCHY		PERCENTAGE OF PUPILS WITH NO DESK TOP AND SEAT
Urban Towns		7
District Headquarters		54
Large Villages		56
Small Villages		46

Various attempts are made to meet the equipment shortage in the district headquarters, large and small village levels. These include holding classes in the open air and holding separate morning and afternoon school classes.

### EXAMINATION PERFORMANCE BY HIERARCHY LEVELS

Standard seven primary school leaving examination results were reviewed to ascertain the relationship between size of settlement and pass rates. To provide a measure of academic performance, Grade A and B pass results were considered as a percentage of total sitting candidates at each level. Although Grade C is a pass grade, it is currently not sufficient to qualify its holder for admission to secondary school and therefore was excluded.

A stratification was found in terms of results. In the case of urban pupils entering the standard seven examination, 42 per cent gained an A or B grade. This compared with 32 per cent of those in district head-quarters and 26 per cent in both large and small villages (Table 6). The percentages of A passes were: 16 per cent in urban towns, 9 per cent in large villages and 7 per cent in small villages. This again illustrates the education disadvantage of rural Botswana.

TABLE 6
STANDARD SEVEN EXAMINATION RESULTS
BY HIERARCHY LEVEL: 1975

LEVEL OF HIERARCHY	A & B GRADES AS PERCENTAGE OF THOSE WHO SAT EXAMINATION	A GRADES AS PERCENTAGE OF THOSE WHO SAT EXAMINATION
Urban Towns District Headquarters Large Villages	26	16 9 8
Small Villages	26	7

Source: Primary School Leaving Examination Results 1975, Ministry of Education.

### Standard Seven Drop-Outs

Another significant difference among the levels was the variation in the number of pupils enrolled in standard seven at the beginning of the year compared with the number taking the examination at the end of the year (Table 7).

# TABLE 7 PERCENTAGE OF PUPILS ENROLLED WHO DID NOT SIT STANDARD SEVEN EXAMINATION IN 1975

LEVEL OF HIERARCHY	PERCENTAGE DROP-OUT
Urban Towns	15
District Headquarters	4
Large Villages	4
Small Villages	3

Source: Primary School Annual Returns, Central Statistics Office, and the Primary School Leaving Examination Results 1975.

In urban towns the drop-out rate was 15 per cent, in district head-quarters 4 per cent, in large villages 4 per cent and in small villages 3 per cent. The reason for this difference is unclear but the comparatively high drop-out rate from town schools may be affected by differing social factors, such as children living in town apart from their immediate families, with friends and relatives. Such children may experience less supervision and discipline than their village counterparts. These factors, as well as the distractions of town life and greater employment opportunities may affect school attendance.

### REPETITION OF STANDARD SEVEN

Repetition in primary schools was officially brought to an end in 1968 when automatic promotion was introduced. Table 8 illustrates the decline in the number and percentage of pupils repeating standard one for the years 1965 through to 1970.

TABLE 8
STANDARD ONE REPETITION: 1965-1970

YEAR	NO. OF STANDARD ONE ENROLMENTS	NO. OF STANDARD ONE REPEATERS	STANDARD ONE REPEATERS AS PERCENTAGE STD. ONE ENROLMENT
71			
1965	17449	4362	25.0
1966	20616	5293	25.7
1967	16992	5267	31.0
1968	17826	225	1.3
1969	14740	85	0.6
1970	12720	15	0.1

Source: Education Statistics, Central Statistics Office.

Repetition as a percentage of standard 7 enrolment has however, increased from less than one per cent in 1968 to 21 per cent in 1975 (Table 9).

TABLE 9 STANDARD SEVEN REPETITION: 1968-1975

YEAR	NUMBER OF STD.SEVEN ENROLMENTS	NUMBER OF STD. SEVEN REPEATERS	STD.SEVEN REPEATERS AS PER- CENTAGE OF STD.SEVEN ENROLMENTS	TOTAL REPEATERS IN ALL STANDARDS	STD.SEVEN REPEATERS AS PER- CENTAGE OF TOTAL REPEATERS
1968	5021	20	0.4	688	3
1969	5618	17	0.3	281	6
1970	6913	187	2.7	276	68
1971	8116	294	3.6	5 <b>76</b>	51
1972	9749	463	4.8	720	64
1973	12002	1284	10.4	1571	82
1974	13811	2159	15.6	2391	90
1975	14449	3084	21.3	3361	92

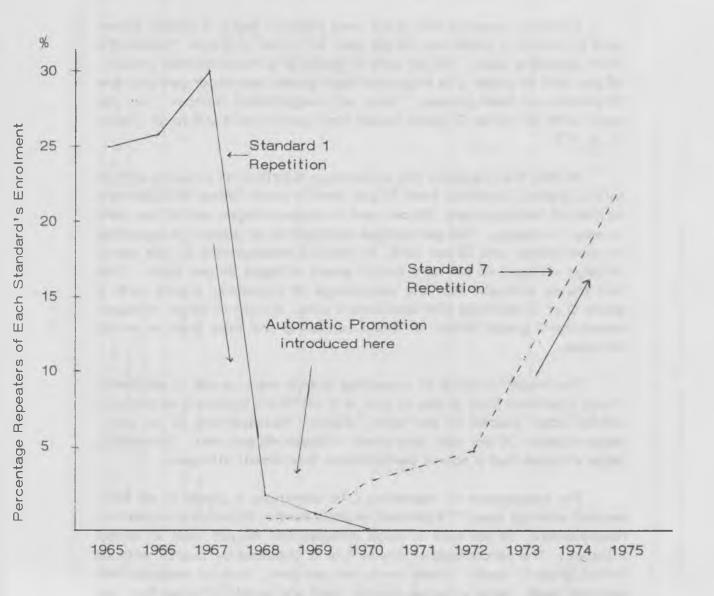
Source: Education Statistics, Central Statistics Office.

In 1975, 92 per cent of all primary school repeaters were in standard 7. There are three implications of this finding. One, the automatic promotion appears to operate in standards one to six; two, "failure cases" in standards one to six are transferred to standard seven; three, the education cost of repeating is transferred to a more expensive grade - assuming education costs rise progressively with standards.

Analysed in terms of the hierarchy the percentage distribution of standard seven enrolment repeating in 1975 was: 18 per cent in urban towns, 24 per cent in district headquarters, 20 per cent in large villages and 26 per cent in small villages.

TABLE 10

REPETITION TRENDS IN STANDARDS ONE AND SEVEN: 1965-75



Source: Education Statistics, Central Statistics Office, and unpublished material, Ministry of Education.

### Effectiveness of Standard Seven Repetition:

Examining the effectiveness of standard seven repetition results within the hierarchy, the 1974 examination results of 856 from 63 schools were compared with 1975 repetition results.

Findings revealed that 2 per cent initially had a B grade, 64 per cent an initial C grade and 34 per cent an initial D grade. The results from repeating were: 65 per cent of grade B's improved their grades, 48 per cent of grade C's improved their grades and 49 per cent of grade D's improved their grades. Only an insignificant number (two per cent) with an initial D grade raised their grade to an A or B level (Table II, p. 17).

Within the hierarchy the percentage distribution of pupils with an initial grade C declined from 75 per cent in urban towns to 66 per cent in district headquarters, 53 per cent in large villages and 63 per cent in small villages. The percentage distribution of grade D's repeating in urban towns was 23 per cent, in district headquarters 32 per cent, in large villages 45 per cent and in small villages 34 per cent. The two trends indicate that the percentage of repeating pupils with a grade C or D declined with settlement size, except in large villages, where the D grade levels of those repeating are less than in small villages.

The majority group of repeating pupils were grade C students. These improved their grade to an A or B within the hierarchy as follows: senior urban places 56 per cent, district headquarters 50 per cent, large villages 36 per cent and small villages 48 per cent. Generally, large villages had a poorer performance than small villages.

The percentage of repeating D's obtaining a grade C on their second attempt was: 74 percent in urban towns, 55 per cent in district headquarters, 36 per cent in large villages and 40 per cent in small villages. The percentage of Grade A or B obtained by pupils with an initial grade D were: urban towns two per cent, district headquarters zero per cent, large villages one per cent and small villages four per cent.

Repetition by D grade pupils is clearly ineffective in producing secondary school candidates as half these pupils writing a second time do not improve their grades. A grade C pass while insufficient for a secondary school place does, however, offer opportunities for employment in those fields where a primary school leaving certificate is a minimum requirement. It is interesting to note that among the repeating D's the small villages while not comparable with urban towns in grade improvement were. nevertheless, more successful than large villages.

TABLE 11

PERFORMANCE OF 1975 STANDARD SEVEN REPEATERS: BOTSWANA AND LEVELS OF HIERARCHY

	PERCENTAGE AND NUMBER OF 1974 EXAMINATION GRADES				SE GRAD	ES OBTA	INED	
	REPEATE	ED IN 1975 EXA	MINATION	А	В	C D	TOTAL	
	Percentage Repeating	Number Repeating	Grades Repeating	%	%	%	%	%
	Grades							
BOTSWANA	2	17	В	65	35	-	-	100
	64	546	С	9	39	51	1	100
	34	293	17	-	2	47	51	100
	_	-						
	100	856						
	2	3	В	67	33			100
URBAN	75	123	С	10	46	43	1	100
TOWNS	23	38	D	2	-	74	24	100
	-	_						
	100	164						
DISTRICT	2	3	В	67	33	-	-	100
HEAD-	66	135	C	11	39	50	-	100
QUARTERS (2)	32	65	D	-	-	55	45	100
GOARTERIS	-	-						
	100	203						
	2	3	8	33	67	-		100
LARGE	53	109	С	7	29	64	-	100
VILLAGES (3)	45	91	D	-	1	36	63	100
	100	203						
	,,,,,	203						
SMALL (4)	3	8	В	75	25	_	_	100
VILLAGES (4)	63	179	C	8	40	31	1	189
	34	99	D	-	4	40	56	100
	-							
	100	286						

Source: Primary School Leaving Examination Results 1974 and 1975, Ministry of Education

Sample consisted of: (1) 8 schools, (2) 9 schools, (3) 19 schools, (4) 27 schools.

### SECONDARY SCHOOL ADMISSIONS

The number of secondary school places has increased dramatically from 4,674 to 13,826 between 1968 and 1975 (Table 12, p. 19). Correspondingly, the number of pupils sitting the standard seven primary school leaving certificate has almost tripled between 1968 and 1975 while admissions to government and aided secondary schools expanded by approximately 250 per cent. The percentage of examination candidates gaining secondary school places has fallen almost continuously from 25 per cent in 1968 to 20 per cent in 1975.

The intensified competition for Government and Aided secondary school places has led to arise in admission grades. In the early 1970's a substantial number of pupils (34 per cent in 1970) with a grade C pass gained secondary school entry. By 1971 the situation had changed dramatically whereby only half the pupils with a grade B pass gained a secondary school place.

To obtain an index of increased competition for secondary school places it was assumed that all pupils with a grade A pass took up secondary school places offered them from 1968 through 1975 (Table 12). On this assumption the percentage of grade B passes unable to gain a place in any one year is shown in column six.

The index reveals that the number of grade B passes that did not gain admission increased sharply in the early 1970's and subsequently fluctuated between 40 and 60 per cent between 1970 and 1975. In 1975 the index was 50 per cent. This is very close to the percentage distribution found in the sample with the exception of district headquarters which was found to have significantly fewer grade B passes not obtaining secondary school places (Table 13, p.21).

Although it has been assumed that all pupils with a grade A pass gain admission to government and aided secondary schools this is not the case. The number of grade A passes in the 1975 standard seven examination was compared with total offers of Form 1 places at secondary school. Based on this sample it was found that 7 per cent of pupils with grade A passes were not offered places. Within the four levels of the hierarchy the percentage distribution was: urban towns 3.4 per cent, district headquarters 1.4 per cent, large villages 10.4 per cent and small villages 11.9 per cent (Table 13). Whether these findings are due to imperfect knowledge concerning bursaries, the operation of the bursaries system or administrative bottle-necks is unclear. The success of district headquarters, however, is noteworthy.

TABLE 12

COMPETITION FOR SECONDARY SCHOOL PLACES: 1968-75

Year	No. Taking Standard 7 Examination	No. of Grade A's Obtained in	No. of Grade A's As Percentage of Total	No. of Grade B's Obtained in	Estimated Percentage of Total Grade B's	No. of Form One Admissions in Year	Secondary School Admissions as Percentage
		Examination	Sitting Candidates	Examination	Without Secondary School Places	Following Examination	of Examination Candidates
1968	4674	320	7	1168	26	1185	25
1969	5490	210	4	971	14	1336	24
1970	6638	651	10	2230	58	1591	23
1971	7941	804	10	2739	37	1854	23
1972	10130	1051	10	2053	62	1826	18
1973	10891	1117	10	2105	41	2362	21
1974	13457	1445	11	2585	47	2812	20
1975	13826	1442	40	2820	50	2853	20

Source: Education Statistics, Central Statistics Office.

<sup>(</sup>a) Includes only Government and Aided Secondary Schools.

TABLE 13

PERCENTAGE OF PUPILS WITH GRADES A OR B IN 1975 STANDARD

SEVEN EXAMINATION NOT OFFERED A FORM ONE PLACE

LEVEL OF	PERCENTAGE OF GRADE	PERCENTAGE OF
HIERARCHY	A'S NOT OFFERED	GRADE B'S NOT
	PLACES	OFFERED PLACES
Urban Towns	3.4	47.8
District Headquarters	1.4	33.3
Large Villages	10.4	45.5
Small Villages	11.9	48.3

Source: Primary School Leaving Examination Results 1975, Form One Admissions 1976. Ministry of Education.

### Bursaries:

The percentage of secondary school pupils awarded bursaries has remained constant at approximately 28 percent over the three years 1973-75. Awards during the same period have increased by 37 percent which is exactly in line with the increase in secondary school enrolments. The total value of bursaries was R 131,390 in 1975 (Table 14).

TABLE 14
SECONDARY SCHOOL BURSARY AWARDS, 1973-75

YEAR	NO. OF AWARDS	TOTAL NUMBER OF PUPILS AT GOVERN- MENT AND AIDED SECONDARY SCHOOLS	PERCENTAGE OF PUPILS AWARDED BURSARIES
1973	1962	6152	29
1974	1881	7055	27
1975	2420	8434	29

Source: Ministry of Education

The annual amount included in the estimates for bursaries is based on the anticipated demand for them over the coming year. Since twentynine per cent of secondary school pupils in Botswana in 1975 benefitted from bursaries it may be that all parents of the other seventy-one per cent had incomes in excess of R600 - which is the upper income limit for receiving bursaries - or that some of those with incomes under this amount did not submit bursary applications. With the current per capita annual median income level in Botswana also running at about this same level of R600 an examination of the levels and conditions under which bursaries are offered and accepted would appear useful.

### CONCLUSIONS

The allocation of the human and physical resources within Botswana's Setswana medium primary school system are unbalanced. The least qualified teachers, the highest ratio of students to trained teachers and the lowest ratio of physical equipment per pupil were found in the rural areas. Correspondingly, the rural success rate in the primary school leaving examination approximates half of what it was in urban towns. A hierarchy, in fact, was found to exist in all these cases.

The urban advantage continued into the secondary school system. The percentage of grade A pupils of urban origin which went on to secondary school was significantly higher than those of rural origin. Based on this sample, seven per cent of grade A pupils were not offered a place in secondary school in 1975. Within this percentage over 96 per cent of all those obtaining grade A's in standard 7 in urban towns and district headquarters were offered entrance to form 1. In villages, both large and small, the corresponding percentage was approximately ninety per cent.

The allocation of bursaries is another area of concern. Lack of familiarity with bursaries or the bursaries application procedures may be the root cause of the poor showing of large and small villages in offers of secondary school places. The fact that seventy per cent of pupils at secondary schools do not have bursaries implies that their parents have incomes in excess of six hundred rand. This also implies that the bias is not solely one of location but also of income.

This analysis demonstrates that a greater emphasis should be placed on the spatial dimension in Botswana's educational planning development. There are substantial human resource pools that remain untapped. Fifty per cent of those who gained standard seven B passes in addition to seven per cent A passes failed to gain a place in the secondary school system. These comprise one of the untapped resources. Spatially, the area of neglect is rural Botswana - where eighty per cent

of the population lives. Therefore the location and size of the next generation of secondary schools become crucial variables in redressing the urban bias of the present system. The findings in this paper suggest that the next generation of secondary schools should be located outside the urban towns and their size scaled to the rural catchment area they are designed to serve.

### ADDITIONAL NOTE: 1

# PRIMARY SCHOOL SURVEY: BURSARIES AND SECONDARY SCHOOL PLACES 1976

This survey was undertaken by Mr. J. Abbott as a follow-up to the study by Dr. N. Campbell and Mr. J. Abbott, "A Spatial Analysis of Botswana's Primary School System". The questionnaire was compiled and distributed with the cooperation of Mr. McMeekin of the Ministry of Education, Secretary of the National Commission on Education.

The purpose of the survey which was sent to headteachers of primary schools was multi fold: to confirm the finding of Campbell and Abbott that some pupils with grade A in the primary school leaving examination in 1975 did not get offered places at secondary school in 1976; and to endeavour to ascertain whether this phenomenon is due to failure to gain a bursary or to other reasons.

A number of other questions were included, such as an opinion on the most suitable language for application forms. However, some of the questions posed by the questionnaire could not be completed by most teachers owing to the lack of information feedback on pupils once they have left school.

### Methodology

The questionnaire (Appendix 1) was posted to the same primary schools used in Campbell and Abbott's study. The table below shows the effective sample size of this study in view of the substantial number of questionnaires not returned by headteachers.

1	No. of	No. of	No. of returned
(	Questionnaires	Questionnaires	Questionnaires
	Sent	Returned	As Percentage of Primary Schools in Botswana Having Std.7
			%
Urban Towns	11 -	6	54
District Headquarters	s 28	21	41
Large Villages	28	.21	75
Small Villages	50	27	28

In a substantial number of cases headteachers were unable to provide the information required. As feared, headteachers in most cases do not know what happens to their standard 7 pupils once they have left school. As a result it would be unwise to give too much credence to the quantitative replies, except that a number of useful general conclusions can be made.

### Conclusions from Questionnaire

Table 1 provides a summary of the findings from the questionnaire. Although headteachers were unable to give reliable answers to many of the questions the following points emerged:

- (i) 75 per cent of headteachers would like more information on application procedures for bursaries and secondary schools.
- (ii) 85 per cent of teachers favour official application forms printed in the Setswana and English languages.
- (iii) 75 per cent of headteachers consider that a substantial number of their pupils who did not gain adequate grades should have been selected for secondary school.
  - It is noteworthy that only 50 per cent of urban headteachers have this opinion.
- (iv) It appears that on average 86 per cent of pupils with grade A passes go on to secondary school. In towns the percentage is 98 per cent.
- (v) Few headteachers are aware of the reason for qualified pupils' failure to go on (as in (iv)) but bursary problems are cited in the majority of cases where an answer is given.

### Specific Areas of Concern Noted by Headteachers

- Bursary application forms not received by schools.
- Parents often do not apply for bursaries in time because they are at the lands when examination results arrive.
- Parents often receive their bursaries late and consequently have to find cash for fees.
- Headteachers not informed when a bursary application is turned down by the district council.

- Headteachers request handouts on procedures which can be given to parents. They also request prospectuses on all the secondary schools with details of capacities and selection criteria.
- Headteachers wish to know how the bursary and secondary school selection processes operate
- Headteachers request details as above and also detailed procedure guidelines for themselves and parents.

### Summary

This survey, although in many ways imperfect in terms of the kind of material solicited, confirmed a suspicion that headteachers and parents are to a large degree out of touch with application procedures for both secondary schools and bursaries.

Almost all headteachers have requested information on these two aspects. They have not merely requested guidelines on procedures but details of criteria for the selection process.

In other words there appears to be an indication, particularly in non urban areas, that headteachers feel they are being neglected in so far as their link with secondary education is concerned.

Finally there does appear to be confirmation that a substantial number of pupils with grade A examination results are failing to find secondary school places. This is more pronounced in the non-urban areas but whether income/bursary factors are the majore cause as opposed to attitude and environment factors is uncertain.

Dated: August, 1976

TABLE 1
RESULTS OF PRIMARY HEADTEACHERS QUESTIONNAIRE

	Towns	District Headquarters	Large Villages	Small Village	Total
Number of Replies from Headteachers	6	21	21	27	75
Percentage of Headteachers wanting more information on secondary school	<u>%</u>	%	%%	%%	%
application procedures	83	76	57	85	75
Percentage of Headteachers wanting more information on bursary application procedures	100	66	71	81	76
Percentage of Headteachers favouring both Setswana and English on application forms	67	95	100	74	87
Engrish of application forms	07	93	100	174	07
Percentage of Headteachers favouring English only on application					
forms	33	5	0	26	13
Percentage of Headteachers who consider that some of their pupils with low grades should have been selected for secondary school	50	71	80	78	75
Percentage of pupils with grade A in the Std. 7 school leaving examination in 1975 who went on to secondary school in 1976 (according to Headteachers records					
and memories)	98	88	72	86	86
Percentage of pupils with grade B in the Std. 7 school leaving examination in 1975 who went on to secondary school in					
1976 according to Headteachers records and memories)	92	78	55	61	70

### APPENDIX 1

Nam	ne of School			
	SECT	ION 1		
1.	As headteacher do you feel you if you had more information fro tion about:-			
	(a) Secondary school application procedures	ion	YES	NO
	(b) Bursary application proced	lures		
2.	If you feel you need more inforwhat kind of information would			
		• • • • • • • • •	• • • • • • • • •	
3.	Which language do you think sh			
		Setswana Only	English Only	Setswana and
				English
4.	How do you inform parents abo mission procedures?	ut Bursary/S	econdary sch	nool ad-
	ALW	AYS SON	METIMES	NEVER
	(a) At parent/teacher meetings			
	(b) Tell pupils so that they can inform their parents?			
	(c) Send circular letters			
	(d) Other			• • • • • • • • •
5.	Some children did not go on to their examination grades were Do you feel that some of these children should have been selected even though their grad	low.	YES	NO NO
	were low?			
6.	If your answer to 5 is yes, what you believe should have gone of			Idren do
		Percentage		

### SECTION II

1.	How many of your pupils gained a grade A in the 1975 Standard 7 school leaving examination?	NUMBER OF PUPILS AFFECTED
2.	To the best of your knowledge, how many of your pupils who obtained grade A in 1975 commenced secondary school in 1976?	NUMBER OF PUPILS AFFECTED
3.	In the case of children gaining grade A who did not continue, how many did not submit applications for bursaries?	NUMBER OF PUPILS AFFECTED
4.	In the case of children gaining grade A what were the reasons for parents not submitting applica- tions for bursaries (Please indicate below)	NUMBER OF PUPILS AFFECTED
	I do not have the information to answer	
	Headteacher did not supply application form	
	Bursary considered inadequate	
	Parents income too high for bursary	
	Parents did not know how to apply	
	Children had left home	
	Children had found employment	
	Other reasons (Please indicate below)	
		• • • • • • • • • • • • •
		• • • • • • • • • • •
5.	To the best of your knowledge, how many pupils gaining grade A did not go to secondary school because their bursary applications were refused by the authorities?	NUMBER OF PUPILS AFFECTED

### SECTION III

1.	How many of your pupils gained a grade B in the 1975 Standard 7 school leaving	NUMBER OF PUPILS AFFECTED
2.	To the best of your knowledge, how many of your pupils who obtained grade B in 1975 and were offered places at secondary school in 1976 actually commenced secondary school?	
3.	In the case of children gaining B in 1975 who were offered places at secondary school in 1976 but did not go, how many did not submit applications for bursaries?	
4.	In the case of children gaining grade B in 1975 what were the reasons for parents not submitting applications for bursaries? (Please indicate below)	
	I do not have the information to answer	
	Headteacher did not supply application form	
	Bursary considered inadequate	
	Parents income too high for bursary	
	Parents did not know how to apply	
	Children had left home	
	Children had found employment	
	Other reasons (Please indicate below)	
	•••••••••••	• • • • • • • • • • • •
	••••••••••	• • • • • • • • • • • • •
5.	To the best of your knowledge how many pupils gair 1975 who had been offered places at secondary school not go because their bursary applications were refusauthorities?	ools in 1976 did

Additional Note: 2

AN EXAMINATION OF BOTSWANA'S
SECONDARY SCHOOL BURSARY SYSTEM: 1976

BY

J.G. ABBOTT

August, 1976

Institute of Development Management Gaborone

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### ADDITIONAL NOTE: 2

### BOTSWANA'S SECONDARY SCHOOL BURSARY SYSTEM

### INTRODUCTION

Government financed bursaries for students successfully completing standard seven and whose parents or guardians were unable to cover the fees required for secondary school were introduced in Botswana in 1966. In that year, 173 bursaries were awarded amounting to 11 per cent of secondary school enrolment and totalling P10,380. By 1975 the number had risen to 2420 (28 per cent of enrolments) and the total value to P131,390.

At the request of the National Commission on Education, IDM embarked on this study of secondary school bursaries in an attempt to discover some of the factors responsible for qualified children not going on to secondary school. To this end this paper examines the procedures currently operating and the numbers and backgrounds of recipients by districts and towns of origin. Finally some observations arising from this review are set forth.

### BASIS AND AMOUNT OF AWARDS

Bursary awards are made to the parents or guardians of children who have been offered places at secondary schools. The awards are paid directly to secondary schools by the Ministry of Education at the beginning of each of the three school terms. The difference between the bursary award and the full cost of fees is paid by the parent or guardian.

Awards are made on the basis of a means test and scale of assessment with an upper cut-off point of P600 net family annual income. Net income is calculated as shown in Table 1.

TABLE 1

## SECONDARY SCHOOL BURSARIES SCALE OF ASSESSMENT

NET ANNUAL	AWARD TOWARDS COST	AWARD TOWARDS
FAMILY INCOME	OF BOARDING AND TUITION	COST OF DAY
	FEES	TUITION FEE
P600 and above	Nil	Nil
P550 - P599	P 7.50	Nil
P500 - P549	P15.00	Nil
P450 - P499	P22.50	Nil
P400 - P449	P30.00	Nil
P350 - P399	P37.50	P 6.00
P300 - P349	P45.00	P12.00
P250 - P299	P52.50	P18.00
P200 - P249	P60.00	P24.00
P150 - P199	P67.50	P30.00
P100 - P149	P75.00	P33.00
P 75 - P 99	P78.00	P37.00
P 50 - P 74	P80.00 P82.50	P42.00
Below P 50	P80.00 P90.00	P45.00

Note: (i) In calculating the <u>Gross Annual Income</u> as given by the details on the bursary application form:

Each single head of cattle; and every seven head of sheep; and every seven head of goats;

is rated as an income of P4 per annum.

(ii) The Net Annual Income is estimated by deducting the following from the Gross Annual Income:

The total of primary and secondary school fees being paid by the Parent/Guardian for his/her other children in Botswana School;

P25 for every approved absolute dependent other than the student for whom the application is made and other children at primary and secondary schools.

- (iii) An absolute dependent is defined as a member of the family who is incapable of contributing to the family income because of age or infirmity, and who has no private income.
- (iv) The School Fee to be taken into account is that for either boarding and tuition or for tuition only. The current maximum bursary awards for boarders are P80 in the case of pupils attending Government schools and P90 for Aided schools.

Table 1 shows the amount of awards related to different levels of net family annual income and to boarding and tuition fees and day tuition fees. Children with families having net annual incomes in excess of P600 receive no bursary. Families in the category P550 to P500 are eligible for a P7.50 award if the child is boarding; the award increases by P7.50 for each P50 decrease in net family annual income. Below P50 net family income a maximum bursary of P80 is paid for Government secondary schools and P90 for grant aided schools.

In the case of children attending secondary schools as day pupils bursary awards begin at P350 net family annual income. At this income level the bursary award amounts to P6 and increases monthly by P6 for each P50 decline in net family income up to a maximum bursary of P45 at the P50 net family income level.

#### CURRENT BURSARY APPLICATION PROCEDURE

#### New Applications

It is normal practice for the Bursaries Scretary at the Ministry of Education to send bursary application forms to Education Secretaries at the District Councils. District Councils are responsible for the distribution of forms to primary school headteachers throughout their own district. Headteachers in their turn distribute bursary forms to all pupils in standard seven.

Bursary applications forms are printed in English and require completion in English by the parent or guardian

In most cases parents complete the application forms which ask for details of income, number of cattle, sheep and goats, current education liabilities for other children and the number of aged absolute family dependents. In some cases teachers help the pupils to complete the form on behalf of parents who cannot write. The completed forms are returned to the primary headteachers who often check the accuracy of the income declaration with headmen and parent teacher representative.

#### Form II, III and IV Bursary Applications

The only bursary applications accepted by the authorities are those submitted for pupils commencing Form I and Form IV. Bursaries awarded to children commencing secondary school for the first time in Form I are awarded automatically in Forms II and III with no further applications required in the latter two years.

Similarly, bursaries may be awarded to pupils who commence the Cambridge Certificate course in Form IV and these pupils receive the same award in the following year without additional application by parents or guardians. However, the current procedures do not allow any bursary applications from pupils in their second or third years of the Junior Certificate course (Forms II and III) nor from applicants in the final year of the Cambridge Certificate (Form I). There is no apparent reason for this procedure. (1)

#### Processing

The Headteachers send the completed bursary application forms to the council of the district in which the parent or guardian resides. A standing committee consisting of the education secretary and the education committee examine the applications and assess them on the basis of a schedule (Table 1). In some cases the committee calls for advice from local tax officers.

Net annual income is computed and assessed by the District Council standing committee which inserts the value of the bursary recommended in the space provided on the form. The assessed bursary forms are then returned to the Bursaries Secretary at the Ministry of Education in Gaborone for final approval. In practice, however, district councils' assessments are rarely queried by the Ministry. Consequently, councils often "leak", unofficially, advice of bursary awards to parents before final Ministry approval.

The Executive Officer at the Ministry of Education takes charge of assessed application forms from the district councils, and the Bursaries Secretary is consulted only in difficult cases. The Executive Officer checks the district council assessments but does not query the income, livestock or number of dependents declarations of the applicants, because he has no basis to do so. In fact it appears that the Ministry does not

<sup>(1)</sup> There were 28 Form II, 7 Form III and 10 Form V applications in 1976.

even query assessments made by councils which are miscalculated or inconsistent. Therefore in reality the Ministry merely "rubber stamps" the bursary applications.

Having stamped and approved bursary applications the Executive Officer in the Ministry of Education compiles a list of pupils and awards which is sent to Education Secretaries and to headmasters of secondary schools. At this stage parents are officially notified by their district councils of their bursary awards - albeit often well into the first school term.

At the beginning of the first term at secondary school pupils are billed for their contribution to tuition and boarding fees which is the difference between the value of the bursary and the school fees for the term. Headmasters in turn bill the Bursaries Secretary in the Ministry of Education for payment of the Government bursary contribution.

EXAMINATION OF SUCCESSFUL FORM 1 BURSARY APPLICATIONS FOR THE SCHOOL YEAR 1976.

The main purpose of this analysis was to obtain a profile of the socio-economic background of parents or guardians who were successful in obtaining bursaries for their children to attend Form | of secondary school in 1976.

The second purpose was to examine bursary application forms for the prevalence of assessment errors and for any indications of inconsistent procedures between districts.

All successful bursary application forms are finally held by the Ministry of Education where they are classified by district/town, and according to whether the application is for Forms I or IV. It was therefore possible to sample successful Form I applications by district (Table 2). Form IV applications were not examined.

TABLE 2

District and Towns	No. of Successful Applications (Universe)	Number Sampled	Percentage Sample
North East	77	11	14
Central	228	40	18
Kgatleng	84	30	36
Kweneng	208	32	15
Southern	55	30	55
South East	77	30	39
Kgalagadi	12	12	100
Ghanzi(1)	-	-	-
North West	12	12	100
Gaborone	27	27	100
Francistown	26	26	100
Lobatse	7	7	100
Selibe-Pikwe	8	8	100
	<del>-</del>		_
	755	265	35
		_	

#### PROFILES OF PARENTS AND GUARDIANS

Table 3 shows the distribution of net family income, and cattle ownership according to sex of parent or guardians and according to district or town of origin.

Just over half the parents who applied for bursaries for their children attending Form I in 1976 were mothers; only Kgalagadi district and Selibe Pikwe were exceptions with 8 per cent and 13 per cent respectively. The national average percentage for male parents was 32 per cent and guardians 16 per cent.

<sup>(1)</sup> In the 1975 examinations, pupils in Ghanzi district obtained 7 grade A's and 13 grade B's. In comparison, pupils from Kgalagadi district obtained 12 successful bursary applications having gained 13 A's and 41 B grade passes.

The national percentage of parent/guardian applicants with less than P50 net annual family income was 65 per cent, except for Francistown where the percentage of parent/guardian applicants in these categories was 12 per cent.

On average only 11 per cent of parents and guardians receiving bursaries in 1976 had net family incomes of between P251 and P600 with the notable exception of Selibe-Pikwe where 38 per cent were in this group.

The government statistician's publication "The Poverty Datum Line for Rural Households in Botswana" defines the poverty datum line for a family consisting of father, mother, aged dependent, two school aged children and one baby as P679 per year. Furthermore the Government Statistician finds the median household income (1) for rural areas in 1974/75 as a whole to be P575 per year. The current upper income limit to the bursary scale is thus roughly equal to the annual income which is considered poverty level for an average family of six comprising two children of school going age. In other words half the rural families in Botswana are currently ineligible for bursaries, half of them having incomes too high to be eligible, although many of them are only just above the poverty datum line.

Cattle ownership by parents and guardians obtaining bursaries for pupils averaged 42 per cent nationally - only North East and Kgalahadi districts had higher ownership percentages than the average (Table 4). Of the 42 per cent, 37 per cent of successful bursary applicants had between one and twenty head of cattle; five per cent had between 21 and fifty head; <1 per cent between 51 and 100 head; <1 per cent with more than 100 head.

Statistical Distribution of Incomes Among Rural Households in Botswana 1974/75 Government Statistics, Gaborone.

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TABLE 3

PROFILE OF DISTRICT AND TOWN APPLICANTS FOR SECONDARY SCHOOL BURSARIES 1976

					D	ISTRICTS	5						TOWNS_		
		National Average %	North East %	Central %	Kgatleng %	Kweneng %	Southern %	South East %	Kgalagadi %	Ghanzi %	North West	Gaborone %	Francistown	Lobatse %	Selibe- Pikwe %
Net Annual Family I of Children's Famili															
Fathers	Rand			45			40	7				14		_	
(Gross in-	Zero	7	-	15	-	9	10	7	-		-	4	-		13
come less	1-50	9	-	8	7	14	10	10	50	-	33		11	-	-
allowable	51-250	11	18	15	14	20	-	3	9	-		4			38
deductions)	251-600	5	9	2	7	3	-	3	9	-	17	-	4	14	30
Mothers	Rand														
	Zero	31	36	40	48	14	43	43	_	-	33	33	-	43	13
	1-50	8	18	3	10	20	3	7	8	-		-	4	-	13
	51-250	10	9	5	7	3	10	7	-	-	-	19	35	29	-
	251-600	4	- 1	5	3	_	3	7	-	-	-	7	12	-	-
Guardians	Rand														
	Zero	7	10	7	-	6	16	7	8	_	9		8	14	11
	1-50	3	- 1	-	-	3	5	6	-	-	-	5	*	-	12
	51-250	3	= =	-	4	8	_	_	8	- 11	-2	4	23	-	-
	251-600	2	-	-	-	-	-	-	8	40	-	4	3	-	-
Total	Rand														
(Fathers, Mothers	Zero	45	46	62	48	29	69	57	8	-	42	47	8	57	24
and Guardians)	1-50	20	18	11	17	37	18	23	58	-	8	9	4	-	38
	51-250	24	27	20	25	31	10	10	17	-	33	27	69	29	-
	251-600	11	9	7	10	3	3	10	17	-	17	17	19	14	38

# TABLE 3 (Continued) PROFILE OF DISTRICT AND TOWN APPLICANTS FOR SECONDARY SCHOOL BURSARIES 1976

						DISTRIC							TOWNS		
		National Average	North East	Central	Kgatleng	Kweneng	Southern	South East	Kgalagadi	Ghanzi	North West	Gaborone	Francistown	Lobatse	Selibe
Cattle Ownership	Cattle Nos.														
& Guardians	1- 5	17	45	8	7	17	13	17	33	-	8	36	8	-	13
as percentage	6-20	20	45	20	21	40	23	20	17	-	17	7	4	-	25
of all applicants	21-50	5	9	5	7	9	3	-	25	-	17	-	-		-
in sample)	51-100	0.5	-	3	-	-	~	-	-	-	-	-	-	-	-
	>100	0.5	*	-	-	-		-	3	-	-	-	-	-	-
Total Cattle Owner mothers & guardia centage of total supplications	ans) as per-	42	99	36	35	66	39	37	78	÷	42	33	12	-	38
Male Parent Catt percentage of total applications		22	27	25	14	37	17	20	58	-	50	11	-	_	38
Female Parent Ca as percentage of t successful applic	total ations	13	64	10	17	17	13	10	8	+	7	4	12	1	-
Male Parents with stock (including spoats) as percent successful applications.	sheep and age of total	6	7	5	10	3	3	3	-	-	17	7	8	14	13
Female Parents v stock (including s goats) as percent successful applic	sheep and age of total	36	*	35	41	14	37	50	-	-	33	52	53	71	13
Male Parents who Earning Employee centage of success applications	o are Wage es as per- ssful	7	18	-	10	6	-	3	8	-	17	4	12	_	38
Female Parents v Wage Earning Em	who are (2)														
as percentage of s applications		10	9	5	7	-	7	17	-	-	-	26	15	29	-
Male Parents as post total successful polications		32	27	38	28	46	20	23	67	Nil	59	22	15	15	63
emale Parents a entage of total s pplications	'	52	64	50	69	37	60	67	8	Nil	33	59	50	70	13
Guardians (1) as		16	9	12	3	17	20	10	25	Nil	8	19	35	15	24
UNIVERSE		755	11	228	84	208	55	77	12	-	12	27	26	7	9
SAMPLE POPUL	ATION	265	77	40	30	32	30	30	12	-	12	27	26	7	8

Source Secondary School Bursary Applications, 1976, Ministry of Education, Gaborone

<sup>(1)</sup> Includes applicants for bursaries who are brothers, sisters and grandparents of child attending school.

<sup>(2)</sup> Most female employees are domestic workers.

#### EXAMINATION OF INCOME ASSESSMENT PROCEDURES

The same samples of successful applications used in the profile study were examined and arithmetic errors or obvious numerical inconsistencies which had been overlooked by district councils and the Ministry were found in a significant number of applications. The number of applications wrongly processed are shown below for town and districts affected.

District/Town	Number of wrongly Assessed Application Forms and those with Errors
Francistown	1 in 4
Lobatse	1 in 7
Kweneng	1 in 16
Southern	1 in 14
Central	1 in 33
Kgatleng	1 in 33
Kgalahadi	1 in 6
North West	1 in 6
Southern	1 in 10
North East	1 in 5

Many of the errors and inconsistencies did not result in under or over award of bursaries where net annual family income was below P50, and therefore made no difference to the award; or because the income steps on the assessment scale were so broad as to not affect the award in spite of arithmetic error.

Although not counted as errors, other questionable aspects included double counting of deductions for fees which possibly already included an element of bursary, and very large education deductions of up to approximately P200 per child attending aided schools. On occasion the section of the form concerning gross income, which was completed by officials, was not consistent with declared income and in the case of Kweneng district the official section of the form was incomplete in all 208 cases although the bursary awards were correct.

There was also found to be pronounced variation in the stringency of district councils to include or exclude small cash incomes and incomes in kind. For example Francistown district council often writes in an estimated income on application forms on which parents have declared zero income. This amending of forms is doubtless well meant but this same council's diligence encompasses such "income" as occasional knitting, occasional or seasonal woodcutting and even small payments received from sons by grandmothers. At the other extreme none of the councils value subsistence crops. In fact none of the councils assess crops production because the application form does not specifically include it.

One aspect of bursary assessment procedure is worthy of immediate attention, namely the income imputed from livestock ownership which is P4 per head of cattle or 7 head of sheep or goats. This figure clearly needs an upwards revision probably to between P15 and P25, in view of average prices received for cattle in recent years.

#### SPATIAL DISTRIBUTION OF BURSARY AWARDS - 1976

Table 5 shows the number and value of bursaries awarded to Form I secondary school pupils in 1976 and the total number of Form I enrolments in that year. From this data the percentage of children receiving bursaries was calculated, as well as the average bursary award per child enrolled in Form I and the average award per child receiving a Form I bursary.

Average Value and Percentages of Bursary
Awards: District and Towns 1976

)-	Number of Form I Children Receiving Bursaries in 1976	Total Value of Form I Bursaries 1976	No. of Children Entering Form I 1976	Percentage Children Receiving Bursaries in Form I	Average Form I Bursary Award per Child	Average Form I Award per Child awarded
					in Form I	Bursary
		Pula		%	Pula	Pula
North East	82	6260	146	56	43	76
Central	257	15393	942	27	16	60
Kgatleng	87	4343	195	45	22	50
Kweneng	200	10784	336	60	32	54
Southern	65	4072	259	25	16	62
South East	82	5973	164	50	36	73
Kgalahadi	11	922	34	32	27	83
Ghanzi	_	_	6	-	-	_
North West	12	463	110	11	4	39
Gaborone	29	1365	245	12	6	47
Francistown	26	1011	193	13	5	39
Lobatse	7	365	126	6	3	52
Selibe-Pikwe	8	294	-	-	-	37
Total:	866	51245	2756	31	19	59

Source: Ministry of Education, Gaborone.

- Note (1) There are some discrepancies between the number of children receiving bursaries in Table 2 and Table 5 above as the latter data is more recent.
  - Another inconsistency arises in the case where bursary awards are subsequently not taken up (e.g. Selibe-Pikwe) because children do not, for various reasons, start secondary school.

Of all children enrolled in Form I in Botswana secondary schools in 1976, 31 per cent were awarded bursaries. On a regional basis the highest participation was found in North East district 56 per cent, Kweneng 60 per cent, and South East district 50 per cent. The lowest rate was in towns as follows: Gaborone 11 per cent, Francistown 13 per cent and North West district, 11 per cent.

The national average bursary award per child enrolled in Form I was P19 compared with a high P43 in North East district and an average of P5 in the three major towns and North West district.

The national average bursary per child awarded in 1976 was P59, with Kgalahadi P83, North East P76, and South East P73 being notably high exceptions. Average per capita awards in towns tended to be lower than the national average.

Overall in 1976, North East district, Kweneng and South East district received better than average shares of bursary funds than other districts and towns. This finding corresponds with the conclusions of the government's rural income survey which showed North East district, Kweneng and South East district as having median household incomes below the national median income.

One noteworthy conslusion from this paper concerns the North West district whose performance in gaining bursary awards compares very unfavourably with other districts. This situation is significant because the median family income in North West district is no higher than in other districts. A closer examination of the bursary procedures in this district would appear warranted.

#### OBSERVATIONS FROM THE STUDY

The foregoing findings would indicate possible action in a number of areas:-

- 1. Guidelines should be established to aid district councils to assess applications. The guidelines should be detailed and state clearly, the action to be taken in regard to the following:-
  - (a) Small amounts of money occasionally earned
  - (b) Value of subsistence and other crops
  - (c) The value of educational deductions and possible double counting of previous bursary awards included in the bursary of other children.
  - (d) Incomplete or wrongly completed forms which require returning to applicants.

- 2. That in conjunction with these procedural guidelines the application form should be redesigned, and printed in Setswana or English and Setswana. Forms should be accepted if completed in Setswana.
- 3. Together with the proposed guidelines for councils, procedures in the Ministry of Education for checking assessments by councils should be strengthened.
- 4. The Ministry of Education should be represented on the district councils' bursaries committees.
- 5. That application for bursaries from applicants for pupils in Forms 2, 3, and 5 should be considered for bursaries. In the light of possible changing financial circumstances all bursaries should be reassessed annually.
- 6. That the sufficiency of bursaries should be examined with special attention to the plight of those with very low incomes.
- 7. That imputed income from cattle ownership should be reexamined and raised from the current level of P4 per head.
- 8. That the value of subsistence and cash crops should be requested on the application form.

Ref.SSB1

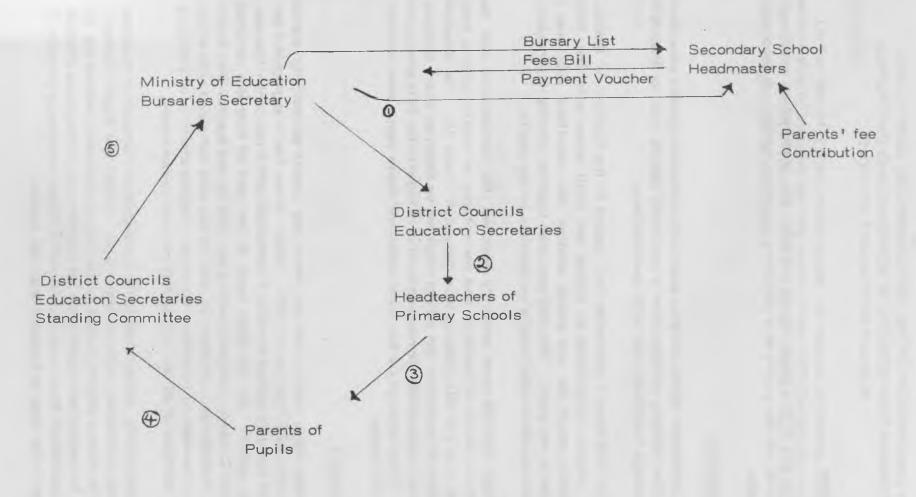
# REPUBLIC OF BOTSWANA SECONDARY SCHOOL BURSARIES

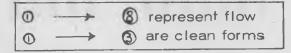
10		Council
Ар	plic	eation for the year 19
wi		Every question must be answered, otherwise the application e returned. Please use CAPITALLETTERS, except for signature. ete two copies and submit both to your Education Secretary.
Α.	Pa 1.	articulars of Pupil Full name
	2.	Sex Date of Birth
	3.	Permanent address
		***************************************
	4.	Nationality
	5.	Name of Secondary School to which admission has been granted
	6.	Form
	7.	Day pupil or boarder
В.	Ар	plication by Parent or Legal Guardian of above-named pupil.
	Ful	II name
		manent address
		tionality
		ationship to pupil (father, mother or guardian)
	l su	ubmit the following information in support of my application.  not working or where there is no income from a particular source te NIL).
	1.	Nature of my employment
	2.	Where employed
	3.	Nature of employment of my wife/husband
	4.	My annual salary or wage
	5.	My wife/husband's annual salary or wage P
	6.	Occasional annual receipts (wife's and husband's)
		(a) From Rents

	(k	b) From Interest and dividends P
7.	Α	ny other annual family income: give details
	•	• • • • • • • • • • • • • • • • • • • •
8.	Ν	umber of Cattle now owned by family
	Т	otal Number of sheep and goats owned by family
9.		ames of my children whose school fees are to be paid by meduring ear of bursary. (Do not include name of pupil in Section A above).
	i	NameDate of Birth
		SchoolFees P
i	i	NameDate of Birth
		SchoolFees P
iii		NameDate of Birth
		SchoolFees P
iv		Name:Date of Birth
		SchoolFees P
V		NameDate of Birth
		SchoolFees P
10.		Other absolute dependants (apart from pupil in question and those named in Section B 9) who are unable because of age or infirmity to contribute to their keep and have no private income. Where applicable state what the infirmity is (e.g. crippled etc.) after the
		age.
	i	NameAge
j	i	NameAge
ii	i	NameAge
i١	<b>/</b>	Name
11.		My Local Tax Registration Number is
		I,
		Date Signed

REC	OMMENDATION BY COUNCIL COMMITTEE.
(a)	Gross annual income
(b)	Deductions
(c)	Nett annual income
(d)	Bursary recommended
Data	: Signed
Date	Education Secretary

### FLOW OF SECONDARY SCHOOL BURSARY APPLICATION FORMS





#### ADDITIONAL NOTE: 3

# A COMPARISON OF THE 1975 CAMBRIDGE CERTIFICATE EXAMINATION RESULTS OF BOARDING AND DAY PUPILS IN EIGHT SECONDARY SCHOOLS

#### Purpose

The aim of this paper was to compare the examination results of boarding and day pupils at a randomly selected number of secondary schools.

#### Methodology

Candidates' names and their examination division (grade) were taken from the Ministry of Education's published results list for the 1975 Cambridge Certificate and GCE examinations.

The 1974 Form I admission list, issued by the Ministry of Education, largely corresponds by school and pupil name with the 1975 candidate result list and states whether the admitted pupil was a boarder or day pupil. This list was used together with the list of examination results to label pupils as boarders or day pupils.

Eight schools were randomly selected for convenience and the results in terms of numbers and percentages of pupils gaining pass grades 1 to 3 of fail grade 9, were tabulated (Table 1). The absolute numbers of candidates per school must not be taken as exact because in some cases candidate names could not be found on the 1974 admission list. There were only a few such cases and these cases were omitted from the tables.

#### Conclusions

There were roughly half as many day pupils as boarding pupils sitting the examinations in 1975. Table I shows that in aggregate 4 per cent of boarders gained division I compared with 5 per cent in the case of day pupils. On the other hand 16 per cent of boarders obtained division 2 passes compared with 9 per cent for day pupils. Day pupils did a little better in division 3, with 46 per cent compared with 40 per cent in the case of boarders. Division 4 passes and division 9 failures were identical at 28 per cent and 12 per cent respectively.

Individually, schools which have comparable numbers of boarders and day candidates, such as Mater Spei, Molefi and Kgari Sechele, seem to have a slightly higher percentage of division I passes but no tests for statistical significance were performed. In the cases of Mater Spei and Molefi there were significantly higher percentage division 2 passes in the case of boarders than day pupils.

### Summary

On the face of it there would appear no marked difference in the performance of boarders and day pupils in the 1975 Cambridge examination but taking Divisions 1 and 2 together boarders would appear to have a slight edge on day pupils.

J. Abbott'

# 1975 CAMBRIDGE RESULTS OF BOARDERS AND DAY PUPILS BY DIVISION AND SCHOOL

Total (8 Second	ndary	Scho	ools)			<u>Total</u>					
	DIV	/ISIO	NS					IVISI	ONS		
Total 289 Boarders	1	2 45	3 117	4 82	9	Total 100% B	1 4	2 16	3 40	28	9
140 Day Pupils	7	13	65	40	15	100% □	5	9	46	28	12
Swaneng		Swanen	9								
	DI	/1510	NS				_	IVIS	ONS		
Total	1	2	3	4	9	Total	1	2	3	4	9
56 Boarders	3	8	20	19	6	100% B	5	14	36	34	11
4 Day Pupils	-	1	3		-	100% □	-	25	75	-	opini.
Seepapitso						Seepapitso					
Total	1	2	3	4	9	Total	1	2	3	4	9
11 B	_	-	2	5	9	100% B	-	-	18	46	36
32 D	1	1	10	12	8	100% D	3	3	31	38	25
St. Josephs						St. Jose	phs				
Total	1	2	3	4	9	Total	1	2	3	4	9
57 B	5	12	26	12	2	100% B	9	21	46	21	3
2D	-	**	-	2	-	100% D	-	-	-	100	-
Mater Spei						Mater S	pei				
Total	1	2	3	4	9	Total	1	2	3	4	9
22 B	1	7	10	3	1	100% B	5	32	46	13	4
36 D	2	6	18	8	2	100% D	6	17	50	22	5

Molefi						Molefi					
Total 22B 29 D	1 1 2	2 3 2	3 13 17	5 8	9 -	Total 100% B 100% D	1 4 7	2 14 7	3 59 59	4 23 27	9
Moeding						Moeding					
Total 71-B D	1 -	9	3 31 -	4 12 -	9 19 -	Total 100% B 100% D	1 - -	2 13 -	3 43 -	4 17 -	9 27 -
Kgari Sechele Total 15 B 18 D	1 1 2	2 1 3	3 4 3	4 8 6	9 1 4	Kgari Se Total 100% B 100% D	chele 1 7 11	2 7 17	3 27 17	4 53 33	9 6 22
Shashe River						Shashe F	River				
Total 27 B 7 D	1 -	2 5 1	3 3 1	4 18 4	9 1 1	Total 100% B 100% D	<u>1</u> -	2 19 14	3 11 14	4 67 58	9 3

J. Abbott 25 August 1976 IDM

#### ADDITIONAL NOTE: 4

#### SURVEY OF ACCESS TO SECONDARY SCHOOLS

Purpose: This study examines the distribution of candidates for entry into Form I in Government and Aided Schools by qualifications (as measured by aggregate PSLE scores) and by size of community in which the candidates' primary school was located. The purpose of the analysis is to determine:

- (a) whether there are significant imbalances in the distribution of candidates by entering scores: i.e. whether some secondary schools admitted largely better-qualified or less-qualified entrants than other schools;
- (b) whether the most able candidates are in fact offered places at secondary schools and whether they accept these offers;
- (c) whether there are differences in the proportions of offers and eventual admission for candidates with the same qualifications who come from communities of different size.

Because the admissions process is complex, involving an initial selection of first-priority entrants, admissions from reserve lists, and some admissions from neither list, it was necessary to analyse the full group of potentially eligible candidates and follow them through to eventual entry or non-entry into government and aided schools. The cooperation of the Headmasters in carefully reviewing the lists of persons admitted to their schools in January 1976 was essential for the study and is sincerely appreciated. The data collection was supervised by John Abbott of IDM and the analysis conducted by Christine Fallert of the Commission Secretariat.

Background: The process of allocating places in government and aided secondary schools among Standard 7 leavers takes place each November in preparation for the following school year. Before the Primary School Leaving Examination is administered and graded, the Ministry of Education distributes secondary school application forms to the primary school teachers to be completed by every student. On these forms, the applicant names a maximum of 3 secondary schools he would like to attend in order of preference, and indicates whether he would like to be considered as a day or boarding candidate for each. Students living within a 3 mile radius of a secondary school are required to state that school as their first choice if it has day places. If the individual could attend a school outside his immediate area as a day student, by boarding with relatives nearby, this information is also to be included on the form. The actual selection of candidates for Form I is conducted by the Senior Education Officer (Secondary) and the Headmasters of the fifteen Government and Aided secondary

schools concerned. As soon as the results of that year's PSLE become available, a list is drawn up which orders all students who sat the examination according to aggregate score. In recent years the practice has been to further divide the candidates into grade clusters which are rank ordered, so that candidates of a lower grade cluster are considered for admission when the next higher group is exhausted, but within each category selection is not determined strictly on the ordering of aggregate scores. In 1975, scores above 309 formed the highest priority A group; 290-309 were high Bs (B1); B2 consisted of 284-289; B3 was 280-283; and scores lower than 280 formed the C and D group. Headmasters derive their day enrolments as far as possible from candidates in the surrounding area, following a purely merit order. The headmaster usually draws local students even from the B3 group if needed, rather than offer a day place to a higher-ranking student from outside the specified radius; unless that student has noted that he can arrange for accommodation near the school. Boarding places are also allocated basically in order of merit. The students who have stated a preference for a given secondary school and who cannot become day students anywhere else from the first group from which the headmaster selects. If all of the boarding places at that school cannot be filled by able candidates who have indicated it as one of their choices, the admissions board allocates students to the school who have not been offered day or boarding places elsewhere.

In this fashion, the admissions board draws up the list of "original offers" to which we refer in this report. Following generally the same procedure, the headmasters also produce a reserve list for each school, to which they resort when any of their first choice candidate refuses an offer of admission or is unable to attend the school. This selection of replacement candidates may occur well into the start of the new school year. If, as had sometimes been the case, a headmaster exhausts both of his lists before acquiring the desired enrolment, the Ministry assigns him candidates from other schools' reserve pool or from among the Standard 7 leavers of that year who had not been previously selected.

Procedure: The analysis of admissions to secondary school was conducted by means of a computer cross-check of the file of students who sat the PSLE in November, 1975, with the lists of original and reserve offers for each school and with the actual Form I enrolments in 1976. For each student in the main file, we obtained the following data: name, aggregate PSLE score, secondary school to which the student was admitted (if any), and whether he appeared on an original or reserve offer list; secondary school in which student ultimately enrolled (if any); and type of community in which the students' primary school is located. The last variable consisted of four categories; towns, (Gaborone, Lobatse, Francistown, and Selibi-Pikwe), district headquarters, villages comprising between 1000 and 2000 inhabitants, and villages of less than 1000, as specified in the 1971 Census.

According to our information, each student received no more than one offer of admission to a secondary school, so there was no overlap among the lists of original and reserve offers. It should be noted that, although the two offer lists are publicised once the Admissions Board nas made its selections, students in the reserve group are not informed that they may actually attend a secondary school unless and until the headmaster cannot enrol all the first-choice candidates. In recent years, the Ministry has, in fact, exhausted the reserve lists, but it is at least possible in any year that some reserve candidates never receive a definite offer of admission to a secondary school. Only the fifteen government and aided secondary schools were included in the study.

#### Results

- 1. The average aggregate PSLE scores of entrants to the fifteen secondary schools from the original list do not vary greatly—the range is from 300 (Maun) to 325 (St. Joseph's), with 309 as the overall unweighted mean. Except for Maun, the aided schools all have average scores above the mean, as do Gaborone and Moeng among the government schools. The average aggregate scores of entrants from the reserve lists are consistently lower (range 282-303 and unweighted mean, 292) than original list scores, as to be expected. St. Joseph's again has the highest score. The entrants to secondary schools who did not appear on either selections list vary somewhat inquality, from the lowest average aggregate score of 205 at Gaborone to a high of 337 at St. Joseph's. For eight schools, the entrants from neither list had higher average scores than the reserve students.
- 2. Of all entrants to the fifteen secondary schools, 88 per cent appeared on an original selections list, 6 per cent had reserve offers and 6 per cent did not come from either roster. Among individual schools, Selebi-Pikwe drew the smallest proportion of entrants from its original list (76 per cent) and Swaneng the highest (96 per cent). Only Selebi-Pikwe and Madiba turned to the reserve group for more than 10 per cent of their entrants, Selebi-Pikwe, Maun, and Moeding drew more than 10 per cent of their Form I enrolments from neither list.
- 3. Figure I illustrates that 10 per cent of A students and 10 per cent of the B1 students did not appear on any list of selections for Form I. Only about 80 per cent of the A students eventually entered Government or Aided secondary schools, however.

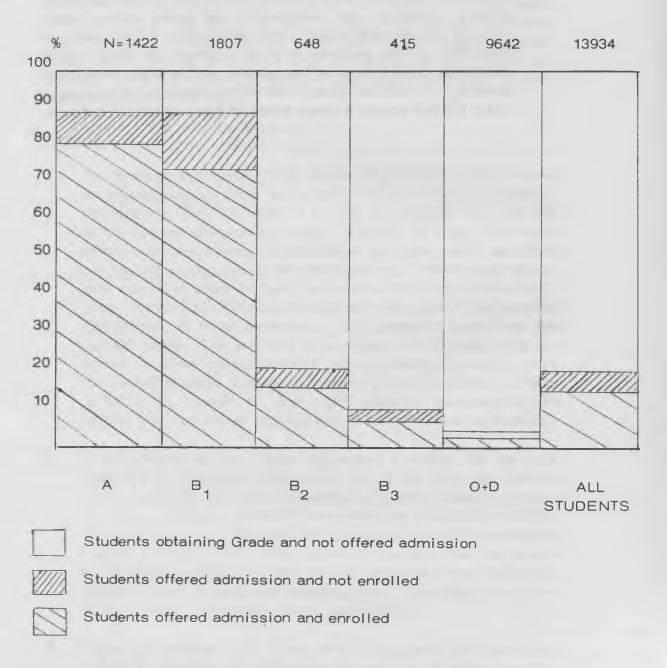
  Table I summarizes the record of offers and enrolments for

students in each grade category. Column (5) of this table shows that the admissions board succeeds in obtaining 94 per cent of the Form I class from among students with an A or B1 pass.

4. Eighty-six per cent of all the students who appeared on original selections list eventually entered one of the fifteen secondary schools (although not necessarily the same school which initially offered admission). Put differently, 17 per cent, or about 380, of the students with an original list offer did not ultimately enrol in any of the government or aided secondary schools. In addition 40 per cent of the students on the reserve roster did not accept a place at one of these secondary schools.

FIGURE 1:

### PERCENTAGES OF STUDENTS RECEIVING OFFERS OF ADMISSION AND ACTUALLY ENTERING FORM I, BY PSLE GRADE



NOTE: Original and reserve list offers included

FIGURES 2a-c: SHAPE OF SECONDARY SCHOOL ADMISSION
OFFERS AND ENROLMENTS AMONG COMMUNITIES
OF DIFFERENT SIZES

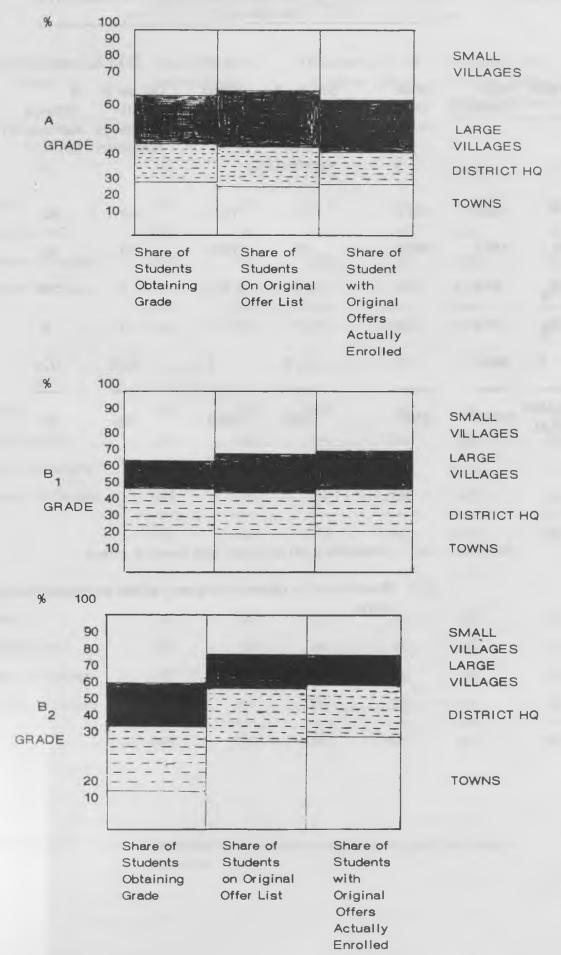


TABLE 1: DISTRIBUTION OF ADMISSIONS AND ENROLMENTS
BY GRADE

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Grade	Total Students	Total Offered Admission (a)	(2) As % of all Students Offered Admission	Total Enrolled (b)	(4) as % of all Students Enrolled	% Offered Admission (2)-(1)	% Enrolled (4)-(1)
Α	1422	1273	41	1117	43	90	79
B <sub>1</sub>	1807	1630	53	1325	51	90	74
B <sub>2</sub>	648	151	5	125	5	23	20
В3	415	35	1	27	1	8	7
C + D	9642	11	0,3	9	0,5	0,1	0,1
GRAND TOTAL	13934	3100	100	2603	100	22	19

NOTES: (a) Includes both original and reserve offers

<sup>(</sup>b) Enrolment in Government and aided secondary schools only.

50

# TABLE 2 SHARE OF SECONDARY SCHOOL ADMISSIONS BY COMMUNITY SIZE

Grade/Community Size	Total S with G	Students Grade	Studen Origina List	ts in al Offer	Students with Original Offers Actually Enrolled		
А	No.	%	No.	%	No.	%	
Town	372	26	311	24	281	25	
District HQ	232	16	223	18	202	18	
Large Villages	289	20	262	21	223	20	
Small Villages	529	37	477	37	411	39	
	1422	100	1273	100	1117	100	
B1							
Town	355	20	264	19	248	20	
District HQ	369	20	341	24	309	25	
Large Villages	404	22	301	21	242	20	
Small Villages	679	38	520	36	417	34	
	1807	100	1426	100	1216	100	
B2							
Town	93	14	25	28	23	29	
District HQ	122	19	26	30	23	29	
Large Villages	176	27	16	18	15	19	
Small Villages	257	40	21	24	19	24	
	648	100	88	100	80	100	

NOTE (a)

Enrolments in Government and Aided Secondary Schools

TABLE 3: DISTRIBUTION OF ACCESS TO SECONDARY SCHOOL,

	(1)	(2)	(3)	(4)	(5)	(6)
	Total Students	Students with Original List Offer		Students	with Original e Enrolled	Offer Actually
		No.	%	No.	As % of all students with original offer (4) = (2)	
Towns		044	0.4	004	90	76
A	372	311	84	281	94	70
B1	355	264	74	248		25
B2	93	25	27	23	92	0
B3	59	0	0	0	-	0.3
C + D	1089	3	0.3	3	100	0.3
Total Town	1968	603	31	555	92	28
District H	Q					
A	232	223	96	202	91	87
B1	369	341	92	309	91	84
B2	122	26	21	23	89	19
B3	86	8	9	5	63	6
C + D	1871	3	0	3	100	.2
Total District	2680	601	22	542	90	20
Large						
Villages						
Α	289	262	91	223	85	77
B1	404	301	75	242	80	60
B2	176	16	9	15	94	9
В3	92	1	1	1	100	1
C + D	2338	1	0	1	-	0
Total	3299	581	18	482	83	— 15
Large	0_00	301	10	102		15
Villages						
Small V	illages					
A	529	477	90	411	86	78
B1	679	520	77	417	80	61
B2	257	21	8	19	91	7
B2	178	9	5	6	67	3
C + D	4344	4	0.1	2	50	0
Total Small Villages	5987	1031	17	855	83	14
ALL STUDEN	13934	2816	20	2434	86	17

NOTE: Only original list offers of admission are included.

5. Figures 2a through 2c illustrate the distribution of offers of admission to candidates from communities of different sizes. Table 2 displays the same data in tabular form. The point of analysing the data in this way was to determine whether towns, districts headquarters and villages received a share of the places in Form I which corresponds to their share of students with a given grade. In Figure 2a, it appears that the allocation of offers to A students from various areas corresponds closely to the distribution of the A grade among the four types of communities. For example, towns provide 26 per cent of the students with an A pass, and 24 per cent of the Form I places are offered to students from towns. It also seems that no type of community has a disproportionate advantage in the actual enrolment of A students.

In the case of B candidates, however, district headquarters and urban areas appear to contribute a large proportion of the entering class than is warranted by their share of the B students. Correspondingly, village students with B passes do not receive an equitable share of the admissions to secondary schools. Forty per cent of the B2 candidates come from small villages, yet only 24 per cent of the B2 students enrolled are residents of these areas.

6. Besides looking at the communities' share of total offers and enrolments, we also investigated whether students who have the same grade but who come from different communities have an equal change of being admitted to secondary school. These are really two ways of looking at the same issue of equity in the admissions process. If students in towns and villages have equal opportunities (a) to receive offers, and (b) to enter Form I, then each type of community is treated equitably in terms of admissions to secondary school. (This is apart from inequities in access to and quality of primary education.)

Figure 3a reveals that 96 per cent of the A students in district headquarters received an offer, compared to 90 per cent of the village A candidates and only 84 per cent of the urban students with this grade. Table 3 portrays the secondary school access enjoyed by candidates from different areas in more detail. It appears that "B" students from towns and district headquarters have a considerably better chance of being admitted to secondary schools than do their village counterparts. Ninety per cent of all the urban and district headquarters students who receive an original list offer of admission ultimately enter secondary school, whereas only about 83 per cent of the village students who are admitted in the initial selection actually enrol. Our analysis of

candidates who received reserve list offers reveals that only half of the rural students in this group actually entered secondary school, but 80 per cent of students from towns and district headquarters who obtained reserve offers accepted them.

#### Interpretation

#### A. Distribution of candidates among secondary schools

(1) The data indicate that there is some slight concentration of the better candidates in St. Joseph's College. The similar advantage enjoyed by Gaborone Secondary School occurs because GSS day students are drawn from the relatively high-quality primary schools in the capital. Overall, there seems to be a fairly balanced distribution of high-scoring and low-scoring students among the fifteen schools, and there is no reason to believe that one institution is "creaming off" the top candidates to the detriment of the other schools.

#### B. Effectiveness of the Selection Process

The procedure for allocating Form I places should be evaluated in large part for its effectiveness - that is, head-masters should be able to reach their desired enrolment with those students they have taken pains to select, and students who have won a place in secondary school should be able to accept it. If not, then assuming the headmasters select the most qualified students to begin with, the admissions system is not functioning so as to place the best candidates in secondary school.

(2) The variation in the quality of entrants who did not appear on either admissions list is rather wide, indicating the somewhat arbitrary nature of the selection fo replacement candidates. In theory, an official in the Ministry obtains candidates for unfilled places in the entering class by picking out students in the PSLE file in order of merit who were not offered admission initially. In fact, however, the final selection appears not to be conducted according to the ranking of aggregate scores, because very few of the 150 A candidates who did not appear on an offer list entered among the 151 replacements for other students. It is possible that the Ministry does offer admission at the last minute to A and B students who miss the first selection, but few of these candidates enrol in the secondary school at that stage. It is thus the students who are able to accept admission, regardless of their grade, who eventually win the remaining places in Form 1.

(3) The most disturbing revelation of the study is that about 150, or 10 per cent of the A students did not receive any offer of admission to Form I, and another 150 who were admitted did not enrol in one of the government or aided schools. It is possible that a few Standard 7 students never submitted an application to secondary school or that their application never appeared before the admissions board. Approximately thirty of the Acandidates enrolled at Maru-a-Pula, but others would have entered a much less satisfactory private school or none at all. In order to gain a clue as to why some students can not accept the positions in secondary school which are offered to them, we carried out a very simple, non-random survey of students with A passes on the PSLE who enrolled in a private secondary school in 1976. According to the private school headmasters' reports on twentyseven such cases, eight were the result of family financial difficulties; six attributed to ill health or pregnancy; one student bowed to family pressure, to remain at home; two candidates were over age by the time other obstacles of sickness or lack of funds could be overcome. The headmaster indicated that three of their Form I students with A passes had never been admitted to a government or aided secondary school. Seven more students were over age at the time the selections took place, so presumably they did not receive an offer either.

It appears that the procedure for allocating secondary school places does not fully ensure that all able candidates will eventually enter a Government or Aided school. The evidence we have gathered suggested that the problems lie with the bursary system, the Ministry's stipulations regarding the maximum age of admission, and perhaps some administrative oversights of potentially eligible candidates. The fact that 40 per cent of the reserve list candidates did not enter one of the fifteeen secondary schools is probably due to the very late date by which these students were notified of their admission.

## C. Distribution of Secondary School Places by Community Size

(4) Sixteen per cent of the A students from towns did not appear on any offer list, compared to 10 per cent of the A candidates from villages and only 4 per cent of those from district headquarters, who missed receiving offers. Since the total number of A passes in the villages is greater than in the towns, it appears, somewhat surprisingly, that urban A students have less opportunity to receive an offer of admission to secondary school than their fellows in rural communities. The reason for this de facto discrimination

is that there are too many A students living in the towns in relation to the number of day places at the local secondary school. Once these schools fill their quota of day students, the remaining A candidates in the area must wait for boarding places elsewhere to be offered to them; yet A students from other areas who cannot attend school as day pupils get first priority in the allocation of boarding positions. A rural student who has relatives in the town or district headquarters may apply for a day place at the school in those locales, but the urban student may not be considered for admission outside his town if the local school does not accept him. Hopefully, the disadvantage currently experienced by A students in the towns will be alleviated somewhat when the new secondary school is constructed in Gaborone.

(5) Students in the B category who come from district headquarters again have a better chance of appearing on an original offer list than either urban or village students. The reason for this outcome is that a secondary school is located in or near most of the district headquarters, yet the number of A and B students from these areas is low relative to the quantity of these candidates in towns or villages. The practice of admitting local students to fill day places works in favour of B2 candidates in district headquarters, because schools will usually choose a lower-quality candidate who can walk to school in preference to a better student who can not find local accommodation.

Another explanation for the apparent advantage of B students from towns and district headquarters is that after the A group has been assigned to schools, the allocation of the remaining places becomes rather arbitrary. Headmasters may be inclined to select students from primary schools and families that are known in the larger population centres. Village B candidates have a slight advantage in the distribution of reserve offers, but the numbers of such admissions are too small to have much affect on the overall access of rural students to secondary school. Figure 3 b illustrates that when both original and reserve list candidates are counted, small villages still send on 70 per cent of their A and B students to secondary school, compared to about 73 per cent of urban and 86 per cent of district headquarters students.

(6) The system of bursary allocation can probably be blamed for the greater proportion of students from towns and district headquarters who eventually accept their offer of admission. The District Councils who process the students' application for financial assistance may receive the forms more promptly from candidates in the larger communities. The Councils also tend to have more

knowledge of the family circumstances of these applicants. The latter point can work for or against a candidate who seeks to prove financial need, of course. All of the reasons suggested earlier for students not being able to accept an offer of admission would apply to rural candidates in particular. Village students are more likely to be over age by the Ministry's standards than their urban fellows. Administrative oversights and slip-ups may be more frequent in communications with students in remote areas. Village students with a low B who receive an offer of admission generally accepted it, probably because rural students at this grade level who could gain admission must have had special connections, such as relatives living near the school who enabled them to attend as day students and provide financial help.

#### CONCLUSIONS

The major conclusion to be drawn from this study is that in spite of the efforts of the Ministry of Education and the Headmasters to allocate Form I places as fairly and as nationally as possible, the process has not in fact succeeded in achieving an equitable and effective selection of the most able candidates into Form I. Students from primary schools in the larger communities enjoy a considerably better chance of gaining admission to Form I than candidates from rural areas. The selection system does not absorb the best qualified students into secondary school - 10 per cent of the A students are not offered admission. Even when the most deserving candidates are selected, there are factors in the system which prevent students from entering secondary school, or at least do not enable certain individuals to overcome objective obstacles to their enrolment.

It appears that the admissions process has functioned to fill day and boarding places efficiently, by determining that expenses for boarding should not be incurred for any student unnecessarily. In the emphasis on finding appropriate candidates for the kind of places available, the system has not ensured that students receive the opportunities they merit. Of course, no alternative procedure for selecting entrants to secondary school could be perfect, given the constraints of a vast excess of demand for places in Form I, a mix of day and boarding facilities, and the concentration of existing secondary schools in larger population centres along the line of rail. Further difficulties inherent in the admission of selection are the short time between publication of PSLE results and the start of the secondary school year, and the lack of reliable communications with students and headquarters in remote areas.

Until the day when secondary schooling can be offered to every student who completes the primary course, the Ministry would be advised to retain its present procedures for allocating Form I places,

but to take positive steps to improve the equity and effectiveness of the system. The following reforms and safeguards are recommended:

- (a) The allocation and administration of secondary school bursaries should be overhauled, in line with the recommendations of the Abbott studies on this subject. We note that the Ministry of Education's recent decision to call for payment of school fees at the end of the first term rather than at the beginning should lessen the chance that some students will not enrol because they receive late notification of obtaining a bursary or their parents have difficulty producing the necessary cash on time.
- (b) The maximum age restriction on entry to Form I should be eliminated or at least modified, to permit rural students who begin school at a late age to continue if qualified.
- (c) The Ministry should conduct a careful investigation of the reasons some A students have not been offered places in secondary school. Measures should be taken to ensure that administrative oversights, misfiling of applications, etc., do not occur, so that no A students are inadvertently passed over when selections are made. This study has been conducted on the assumption that the PSLE is an appropriate mechanism for determining which students are best qualified to enter secondary school. The flaws in this examination have been well-documented in H.C.A. Somerset's report to the National Commission on Education.

Further, the uneven distribution of educational resources among primary schools implies that even the best examination will be unfair to the disadvantaged pupils. The determination of which candidates are the best qualified will remain problematic, yet secondary school places must be rationed for some time in Botswana. The following reforms should produce a more just determination of the deserving candidates:

- (d) changes in the content of the PSLE, as proposed by Somerset.
- (e) using a partial quota system in the allocation of Form I places. For example, a portion of the entering places might be reserved for the top 10 per cent of Standard 7 students in each primary school, with the remaining places allocated by order of aggregate PSLE score.



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