

## **CHAPTER 7**

### **Education and Manpower Bureau**

#### **Planning and provision of public secondary school places**

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# PLANNING AND PROVISION OF PUBLIC SECONDARY SCHOOL PLACES

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# **PLANNING AND PROVISION OF PUBLIC SECONDARY SCHOOL PLACES**

## **Summary**

1. It is a government policy to provide nine years of free and basic education for every child aged between 6 and 15 (or until completion of Secondary Three, whichever is earlier). Secondary education aims to provide a well-balanced education that will prepare students for further education or for work. As at September 2002, there were about 461,000 secondary students studying in 402 public (i.e. aided or government) schools and 94 non-public schools. The average cost of providing a public secondary school place is about \$36,000 a year. In the financial year 2003-04, the recurrent financial provision for secondary education amounts to \$16.6 billion (paras. 1.2 to 1.6).

2. Audit has recently conducted a review of the planning and provision of public secondary school places. The objectives of the audit are to examine the Education and Manpower Bureau's (EMB) system of planning and providing public secondary school places and to ascertain whether there are areas for improvement (para. 1.9).

## **AUDIT FINDINGS**

### **Classroom utilisation**

3. Of the 402 public secondary schools as at September 2002, 50 had a total of 145 vacant classrooms. Vacant classrooms are a matter of concern because they represent under-utilisation of educational resources. Audit examined the vacant classroom situation at four aided schools where the situation was more serious, and found that these schools could take action to reduce the number of vacant classrooms (paras. 2.2 to 2.16).

### **Unfilled places in public secondary schools**

4. Of the 10,940 operating classes as at September 2002, 4,597 had unfilled places, including 671 classes in ex-prevocational/technical schools (paras. 3.3 and 3.17). The total number of unfilled places was about 20,300.



As the EMB allocates resources to public schools mainly based on the number of operating classes, under-enrolment implies that resources allocated are not being utilised in an optimal manner. The under-enrolment situation could be improved by combining seriously under-enrolled classes of the same level in the same school. Audit has estimated that, by combining classes with large numbers of unfilled places, up to 147 operating classes could be reduced (paras. 3.3 to 3.8).

### **Supply of places at Secondary Six and Seven**

5. Audit noted that as at September 2002, almost all Secondary Six classes were operating at full capacity, with only 293 unfilled places. At the same time, the number of unfilled places at Secondary Seven was 965. Many students who wished to pursue studies in Hong Kong after passing the Hong Kong Certificate of Education Examination could not be admitted to Secondary Six due to the limited number of places, yet many of those admitted to Secondary Six choose not to study in Secondary Seven. This is because some of them go abroad to continue their studies or are admitted to local universities after completing Secondary Six. To deal with this situation, one possible option is to increase the class size of Secondary Six classes slightly (paras. 3.11 to 3.14).

### **Caput schools**

6. In the early 1970s, when the supply of public secondary school places was inadequate, the Government considered that it needed to buy school places from private schools. It decided that a grant should be given to non-profit-making private schools for each secondary school place bought. As the amount of the grant was offered on a per pupil basis, the grant became known as the Per Caput Grant. In the 2002-03 school year, the Government bought a total of 7,300 school places from the nine caput schools, at an amount of \$246 million. Audit noted that three of these schools were awarded negative value-added scores by the EMB over the last three years. Furthermore, there were 20,300 unfilled places in public secondary schools, which were more than sufficient to absorb the places provided by the caput schools (paras. 3.21 to 3.29).

### **Government secondary schools**

7. The Government provides a secondary education service directly to students by operating 36 government schools. Government secondary schools cost more to operate than aided secondary schools, mainly because the staff

are employed on civil service terms and enjoy better fringe benefits than their counterparts in aided secondary schools. In 2002-03, the cost differential was \$10,013 per student or 29%; the annual operating cost of a standard government school was \$11.2 million higher (paras. 4.2 and 4.16).

8. Audit noted that the utilisation rates of two government schools were particularly low, standing at only 30% and 46%. The EMB needs to examine the justification for continuing to run 36 government schools given the low utilisation rates of some schools (paras. 4.13 and 4.18).

### **Model for projecting future supply and demand for public secondary school places**

9. The EMB has developed a model to project the future supply and demand for public secondary school places. According to the latest projection made in 2002 covering the period 2003 to 2012, the supply of public secondary school places will be *insufficient* to meet the demand between 2003 and 2009. To meet the expected shortfall, the EMB is planning to build 34 new secondary schools by 2008 (para. 2.2). However, supply will exceed demand from 2010 (paras. 5.4 to 5.7).

10. Audit examined the projection of supply and demand for public secondary school places made by the EMB in 2002 and noted that the EMB might not have fully taken into account the following factors in assessing the total number of available public secondary school places:

- (a) there were some 145 vacant classrooms (see para. 3 above) which could be utilised to provide additional school places;
- (b) excessive number of school places was reserved for repeaters at Secondary One to Three;
- (c) the number of school places provided by Direct Subsidy Scheme schools that the EMB took into account was on the low side; and
- (d) ten of the 34 new schools being planned were finalised after the EMB made its projection in 2002. The additional school places to be provided by these ten new schools were not included in the projection.



11. Audit considers that the methodology for projecting future supply and demand for public secondary school places needs to be re-examined (paras. 5.9 to 5.15).

## AUDIT RECOMMENDATIONS

12. The Secretary for Education and Manpower should:

### *Classroom utilisation*

- (a) periodically review the enrolment situation and assess the performance of those schools with significant numbers of vacant classrooms (para. 2.17(b));
- (b) require those schools which have not made significant contributions to the progress of their students to make improvements within a reasonable period of time (para. 2.17(d));

### *Unfilled places in public secondary schools*

- (c) keep the enrolment situations of all schools under review and, where feasible, direct schools to combine under-enrolled classes of the same level in the same school (para. 3.9);

### *Supply of places at Secondary Six and Seven*

- (d) consider increasing slightly the class size standard of 30 students per class for Secondary Six classes to admit more Secondary Five school leavers (para. 3.15(b));

### *Caput schools*

- (e) consider reducing the number of school places bought from caput schools, having regard to the large number of unfilled places in public secondary schools (para. 3.30(a));

- (f) carry out inspections of caput schools to ensure that school places are only bought from those schools which are properly managed and providing quality education (para. 3.30(b));

#### ***Government secondary schools***

- (g) critically examine the objectives of providing government secondary schools to see whether they are still valid, having regard to present-day circumstances (para. 4.19(a));
- (h) closely monitor the utilisation in some government secondary schools and implement necessary improvement measures (para. 4.19(b));

#### ***EMB's methodology for projecting future supply and demand for public secondary school places***

- (i) re-examine the projection of supply and demand for public secondary school places (para. 5.16(a));
- (j) in making the projection, consider reducing the number of school places reserved for repeaters (para. 5.16(b));
- (k) periodically review the number of Direct Subsidy Scheme school places to be taken into account in making the projection (para. 5.16(c)); and
- (l) in future, in making the projection, take into account all the schools that will be built according to the EMB's School Building Programme (para. 5.16(d)).

#### **Response from the Administration**

13. The Secretary for Education and Manpower generally agrees with Audit's recommendations.



## **PART 1: INTRODUCTION**

1.1 This PART describes the background and the objectives of the audit.

### **Background**

1.2 It is a government policy to provide nine years of free and universal basic education for every child aged between 6 and 15 (or until completion of Secondary Three, whichever is earlier). Secondary education aims to provide a well-balanced education that will prepare students for further education or for work.

1.3 As at the beginning of the 2002-03 school year (September 2002), there were about 461,300 secondary students in secondary schools in Hong Kong. Secondary school places are provided by aided schools managed by voluntary bodies under the Code of Aid, by government schools managed by the Education and Manpower Bureau (EMB), and by non-public schools (e.g. private schools and Direct Subsidy Scheme schools). The composition of secondary schools as at September 2002 is summarised in Table 1.

**Table 1**  
**Composition of secondary schools and their enrolments**  
**(September 2002)**

	No. of schools		No. of students	
<b>Public schools</b>				
Aided schools	366	74%	371,900	81%
Government schools	36	7%	36,800	8%
<i>Subtotal</i>	<b>402</b>	<b>81%</b>	<b>408,700</b>	<b>89%</b>
<b>Non-public schools</b>				
Direct Subsidy Scheme schools	31	6%	26,200	5%
Caput schools (Note 1)	9	2%	7,300	2%
Private schools (Note 2)	54	11%	19,100	4%
<i>Subtotal</i>	<b>94</b>	<b>19%</b>	<b>52,600</b>	<b>11%</b>
<b>Total</b>	<b>496</b>	<b>100%</b>	<b>461,300</b>	<b>100%</b>

Source: EMB's records

Note 1: Caput schools are non-profit-making private schools in receipt of the Per Caput Grant. This is a form of government financial assistance available since 1971 – see para. 3.21.

Note 2: Private schools include schools of the English Schools Foundation and other international schools. One of the international schools is currently funded under the Direct Subsidy Scheme. This international school will turn private in 2004-05 school year.

1.4 ***Ex-prevocational/technical schools.*** Of the 366 aided secondary schools, 37 provided a different curriculum for students of all abilities who had aptitudes for or inclinations towards practical/technical subjects. These 37 schools were previously known as prevocational/technical schools. Since 1997, they have been allowed to remove the prevocational/technical reference from their names (these schools are hereinafter referred to as *ex-prevocational/technical schools*).

1.5 ***Direct Subsidy Scheme schools and caput schools.*** Of the 94 non-public schools, 31 were funded under the Direct Subsidy Scheme (DSS). The DSS was introduced in 1991 to provide a recurrent subsidy for private schools while allowing them greater freedom with regard to curriculum, school fees, entrance requirements and terms of employment for staff. The DSS was aimed at enabling these schools to develop into a viable alternative to government and aided schools. Of the remaining 63 non-public schools, nine were in receipt of the Per Caput Grant – a form of government financial assistance introduced in 1971. The amount of caput grant is based on the number of students enrolled in the school rather than the number of classes being operated. These nine schools are called caput schools.

1.6 In 2003-04, the recurrent financial provision for secondary education amounts to \$16.6 billion. The average cost of providing a public (i.e. government or aided) secondary school place is about \$36,000 a year.

### **Government's secondary education provision targets**

1.7 As stated in the Controlling Officer's Report in the 2003-04 Estimates, the Government aims to provide free and universal schooling for every child aged 12 to 15, and to provide sufficient subsidised Secondary Four to Seven school places in public schools to meet its approved provision targets. Table 2 shows the current approved provision targets.

**Table 2**

**The Government's current approved provision targets for public secondary school places**

<b>Secondary</b>	<b>Target</b>
One to Three	All children aged 12 to 15, <i>excluding</i> those attending English Schools Foundation schools and other international schools.
Four and Five	About 95% of all Secondary Three students to be offered subsidised Secondary Four and Five school places.
Six and Seven	About one-third of the number of Secondary Four students two years previously.

*Source: EMB's records*

### **Role of Education and Manpower Bureau**

1.8 The Secretary for Education and Manpower formulates and implements educational policies at kindergarten, primary and secondary levels. The EMB's main responsibilities include implementation of the provisions of the Education Ordinance (Cap. 279); the planning, provision and allocation of school places; the provision of education opportunities for children with special educational needs; the development of school curricula; the registration and inspection of schools to provide assurance of the quality of school education; the monitoring of teaching standards; and the provision of support to schools with public funding and of other facilities.

### **Audit review**

1.9 Audit has recently conducted a review of the planning and provision of public secondary school places. The objectives of the audit are to examine the EMB's system of planning and providing public secondary school places and to ascertain whether there are areas for improvement. The audit findings are reported as follows:

- (a) classroom utilisation (PART 2);
- (b) unfilled places in public secondary schools (PART 3);
- (c) government secondary schools (PART 4); and
- (d) model for projecting future supply and demand for public secondary school places (PART 5).

### **General response from the Secretary for Education and Manpower**

1.10 **The Secretary for Education and Manpower has said that he welcomes this audit study on the planning and provision of public secondary school places. He appreciates the efforts of the audit team.** He has also said that the EMB should ensure the effective use of resources, and that:

- (a) the Administration is committed to providing free and compulsory nine-year education to all eligible children, as well as subsidised Secondary Four and training places to all Secondary Three students in public sector schools who have the ability and wish to continue with their studies. Given the importance of human capital to Hong Kong's future development, the education system will *not* be performing its expected function if it does *not* strive to upgrade the quality of education. In other words, quality is very important;
- (b) while appreciating that a snapshot approach is necessary for any audit study, it is also pertinent to note that the EMB does not have the privilege of working on a clean slate in planning for the provision of school places. Planning is incremental and based on many assumptions and projections adopted in the past. The school infrastructure in place today is the product of many years' evolution. A school's physical structure, once constructed and completed, will be expected to last for many decades and the scope for alteration is *not* unlimited;



- (c) demand for school places, on the other hand, is always in a state of flux. Hong Kong's population, its demographic composition and distribution between districts are ever changing. The irregular inflows of immigrants from Mainland China, the decreasing birth rate of the local population and the rapid development of new towns are a few recent-year examples. Also evolving are the education system and policies, which must keep pace with Hong Kong's development and community expectations. The Education Reform launched in 2000 and the adoption of Year 2000 design for school buildings are but two of the more prominent illustrations;
  
- (d) therefore, the provision of school education constitutes a "*formidable art*" – how to provide education opportunities to all eligible children while at the same time leveraging on the provision of school places to encourage quality enhancement, amidst a state of volatile demand and continuous policy development, and against the backdrop of a sector marked by numerous stakeholders and established traditions and practices. Confounding all these is, as aforementioned, the rigidity of the hard infrastructure;
  
- (e) overall, the EMB needs to strike a sensible balance between "running a ship as tight as possible" to achieve economy and managing the planning process in an effective yet simple manner to implement our various policy initiatives. In other words, the focus of the planning process should not only be a mere matching of supply and demand – to ensure provision of sufficient public sector secondary school places for all eligible students, including a buffer capacity to readily respond to unforeseen changes, as well as efficient use of resources – but also the quality of education;
  
- (f) with a view to enhancing quality and choice in the education system, the Administration has in recent years sought to introduce diversity and market mechanism which can help encourage schools' self-reflection and self-improvement. Diversity and choices are empty promises without a reasonable degree of surplus supply of school places to facilitate student movement and to identify the less popular or relatively weak schools;
  
- (g) Audit has suggested that vacant classrooms and unfilled school places represent under-utilisation of resources. As explained in detail in the relevant parts to follow, there are many reasons for this. For example,

some schools built years ago but still meeting an extant demand may see a declining population in its catchment area as time goes by. The operation of parental choice may also leave some school places vacant which should have been filled in the macro planning process. It is quite *impossible* for the EMB's planning process to factor in such "volatile considerations" perfectly. There are thus bound to be differences between what is planned prospectively as a whole, and what actually happens on the ground on an individual school basis. Many a time, it may be neither practicable nor possible to operate classes in every available classroom in a given school, or to "pack" students to fill every available place in a given class;

- (h) the EMB's School Building Programme is in place not only to ensure the provision of a sufficient supply of school places but also to support the implementation of other initiatives to improve the quality of education. Given the demographic changes and population movements in Hong Kong, there is a need to build new schools at suitable locations to meet new demands identified. Even in the absence of new demands, new schools may need to be built to re-provision the premises of well-performing schools which may have become old and are poorly equipped; and
- (i) the School Building Programme is subject to regular review and adjustment taking into account such factors as the latest population projection, updated forecast of the demand and supply situation, progress in closing sub-standard schools, parental choice, etc.

## **PART 2: CLASSROOM UTILISATION**

2.1 This PART reports that some public secondary schools have significant numbers of vacant classrooms.

### **Vacant classroom situation**

2.2 According to the projection of the supply and demand for public secondary school places made by the EMB in 2002 and covering the period between 2003 and 2012, the supply of public secondary school places is *insufficient* to meet demand up to 2009. The shortfall will range from 0.8% in 2003 to 1.4% in 2008. To meet the expected shortfall, the EMB is planning to build 34 new secondary schools by 2008 (see PART 5). Audit noted that as at the beginning of the 2002-03 school year, the 402 public secondary schools provided 10,424 classrooms in total. *However, 50 of these schools had between them a total of 145 vacant classrooms.*

2.3 The 145 vacant classrooms in these 50 schools are a matter of concern because they represent under-utilisation of educational resources. If they can be utilised, some of the 34 new schools being planned may not be needed. Table 3 shows the distribution of the 145 vacant classrooms.

Table 3

**Distribution of 145 vacant classrooms in 50 public schools  
(September 2002)**

No. of vacant classrooms in each school	Government school	Aided school	----- Total ----- ®	
			schools	vacant classrooms
(a)	(b)	(c)	(d) = (b) + (c)	(e) = (d) - (a)
1	-	13	13	13
2	-	13	13	26
3	-	10	10	30
4	-	8	8	32
5	-	<u>3</u>	3	15
6	-	-	-	-
7	-	<u>1</u>	1	7
8	-	-	-	-
9	-	-	-	-
10	<u>1</u>	-	1	10
11	-	-	-	-
12	<u>1</u>	-	1	12
			<b>50</b>	<b>145</b>

{ 24 (48%)  
 { 106 (73%)

Source: EMB's records

### ***Schools with a serious vacant classroom problem***

2.4 Table 3 shows that of the 50 public secondary schools with vacant classrooms, about 48% (24 schools) had three or more vacant classrooms as at September 2002. The problem was more serious in six (see the items underlined in Table 3) of these 24 schools, each of which had five or more vacant classrooms as at September 2002. Of these six schools, two were government schools with ten and twelve vacant classrooms respectively. (Further audit findings regarding these two government schools are in PART 4.) Audit examined the vacant classroom situation of the four aided schools (hereinafter referred to as Schools A, B, C and D) with five or more vacant classrooms each. Details of the audit findings are in paragraphs 2.5 to 2.16.

#### ***School A***

2.5 School A is a well-established school with a satisfactory enrolment record and few unfilled places. In 1999, it was allocated *a new school building with 30 classrooms* in Shatin. Audit examined the class structure and the enrolment situation of this school as at September 2002, and noted that there were five vacant classrooms. The school only operated three classes at each of the Secondary Four and Five levels, whereas it operated five classes at each of the Secondary One to Three levels. Details are shown in Table 4.

**Table 4**

**Number of operating classes and enrolment situation of School A  
(September 2002)**

<b>Secondary</b>	<b>No. of operating classes</b>	<b>No. of students enrolled</b>
One	5	206
Two	5	207
Three	5	193
Four	3	117
Five	3	103
Six	2	60
Seven	2	57
	<b>25</b>	<b>943</b>

Source: EMB's records

Note: School A had 30 available classrooms, of which five were vacant.

2.6 Audit reviewed the number of Secondary One applications received by School A in 2002 during the Secondary School Places Allocation (SSPA) process for the 2003-04 school year. School A received 170 applications for admission to Secondary One – a number around 24% higher than the territory-wide average of 137. This suggested that there was generally a high demand for admission to this school. If School A had operated more classes after moving to the new school building in 1999, its number of vacant classrooms could have been lower.

### ***Schools B and C***

2.7 Schools B and C, which had five vacant classrooms each, are in Islands District. School B is a 16-classroom school and School C a 22-classroom school. Audit analysed the utilisation of these two schools as at September 2002 and noted that, apart from having vacant classrooms, both schools had considerable numbers of unfilled places in their *operating* classes. Table 5 shows the number of unfilled places at these two schools as at September 2002.

**Table 5**  
**Number of unfilled places**  
**in the operating classes at Schools B and C**  
**(September 2002)**

<b>Secondary</b>	<b>School B</b>	<b>School C</b>	<b>Total</b>
One	41	14	55
Two	45	9	54
Three	31	32	63
Four	34	–	34
Five	–	–	–
Six	2	7	9
Seven	–	7	7
	<b>153</b>	<b>69</b>	<b>222</b>

*Source:* EMB's records

*Note:* School B has 16 classrooms. School C has 22.

2.8 Details of applications for admission to Secondary One received by Schools B and C in 2002 during the SSPA process are as follows:

- (a) School B did *not* receive any applications; and
- (b) School C received only 59 applications.

The numbers of applications the two schools received were considerably *lower* than the territory-wide average of 137. These two schools had difficulties in finding students to fill their available school places.

2.9 In response to the above audit findings, the EMB explained that Schools B and C were in Islands District, and were built for students in the vicinity. Vacant classrooms and unfilled places had arisen partly because many students in the vicinity of these two schools had chosen to spend hours of travelling time to attend schools in *other* districts.

2.10 Audit also reviewed the value-added scores (Note 1) in the three core subjects (i.e. Chinese, English and Mathematics) obtained by Schools B and C in 2000, 2001 and 2002. These two schools had consistently been awarded positive scores (see Table 6).

**Table 6**

**EMB's value-added scores for Schools B and C  
in the three core subjects in 2000, 2001 and 2002**

<b>School</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
B	+6.73	+3.40	+4.50
C	+4.76	+5.19	+1.91

*Source: EMB's records*

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**Note 1:** *The value-added score is one of many school performance assessment tools used by the EMB. It is an indicator which shows the contribution made by a school to the progress of its students in the subject concerned over a period of time. The value-added scores awarded by the EMB range from “-10” to “+10”. A school achieving a high positive score can be considered as one that has made a significant contribution to its students' progress.*

2.11 It is evident that these two schools have consistently contributed to the progress of their students in the three core subjects. Yet there are students in the vicinity of these two schools who have opted to spend long periods almost daily in commuting to schools in other districts. Audit considers that the EMB should take action to help Schools B and C enrol more students, especially from among those who live reasonably close to the schools.

### ***School D***

2.12 School D is a 42-classroom school in Central and Western District, and, as at September 2002, *it had seven vacant classrooms*. Audit analysed the enrolment situation of School D as at September 2002, and found that it also had a significant number of unfilled places in its operating classes (see Table 7).

**Table 7**

**Number of available and unfilled school places at School D  
(September 2002)**

<b>Secondary</b>	<b>No. of available places</b>	<b>No. of unfilled places</b>
One	280	134
Two	240	78
Three	240	58
Four	200	16
Five	200	37
Six	90	–
Seven	90	3
	<b><u>1,340</u></b>	<b><u>326</u></b>

Source: EMB's records



2.13 The 326 unfilled places were equivalent to some eight operating classes of 40 students each. *During the 2002 SSPA process, School D received only 14 applications for admission to Secondary One, a very low figure compared to the territory-wide average of 137. School D had difficulties in enrolling and retaining students.*

2.14 The EMB's value-added scores for School D were relatively low in 2000, 2001 and 2002 (see Table 8).

**Table 8**

**EMB's value-added scores for School D  
in the three core subjects in 2000, 2001 and 2002**

<b>2000</b>	<b>2001</b>	<b>2002</b>
-0.91	+0.77	+2.07

*Source: EMB's records*

2.15 The value-added scores earned by School D do not suggest that it had made notable contributions to the progress of its students (see Note 1 in para. 2.10). This may partly explain why School D was not able to attract students. Audit considers that the EMB should conduct an inspection of School D to identify the problems which may exist there.

2.16 Vacant classrooms represent under-utilisation of educational resources. The 145 vacant classrooms identified in Table 3 of paragraph 2.3, equivalent to five schools of 30 classrooms each, should be utilised as far as practicable. The EMB needs to reduce the number of vacant classrooms.

**Audit recommendations**

2.17 **Audit has recommended that the Secretary for Education and Manpower should:**

- (a) **take action to ensure schools operate enough classes to make full use of the available classrooms;**
- (b) **periodically review the enrolment situation and assess the performance of those schools with significant numbers of vacant classrooms;**
- (c) **encourage those schools which are properly managed and providing added value to the educational process to operate classes in all their available classrooms; and**
- (d) **require those schools which have not made significant contributions to the progress of their students to make improvements within a reasonable period of time.**

### **Response from the Administration**

2.18 **The Secretary for Education and Manpower agrees that persistent under-utilisation of classrooms needs to be tackled.** He has said that the EMB always aims at optimising the use of classrooms. Factors, such as school's tradition and management, availability of sufficient supporting facilities, etc. have to be considered before deciding the class structures of a school. He has also said that:

#### ***Schools A to D***

- (a) the EMB has looked into these four schools to see if there is any cause for concern;
- (b) School A is a special case and the situation of vacant classrooms in this school is only temporary and transitional. It is a well established girls' school with SSPA feeder linkage. It was reprovisioned to the new premises in the 1999-2000 school year. The planned ultimate class structure from Secondary One to Secondary Seven is 5-5-5-5-5-2-2. The reprovisioning of the secondary school would vacate its old premises for its feeder primary school to turn into whole-day mode. The whole-day conversion of the primary school could be speeded up if School A moved to the new premises in one go instead of by phases. Prior to its move, due to classroom

limitation, the school operated only three classes per level for Secondary One to Five. After consultation with the school and parents and taking into account school's history and tradition, the then Education Department (ED) agreed to move School A to the new premises in one go with a progressive expansion in classes. Five classes of Secondary One have been allocated from 2000-01 (i.e. a 5-3-3-3-2-2 class structure). The class structure has progressed to "5-5-5-5-3-2-2" in the 2003-04 school year, and will become "5-5-5-5-2-2" in the 2004-05 school year;

- (c) the locations of Schools B and C have limited the source of students. While some students in the vicinity may choose to study in schools in other districts, such as some elite schools on Hong Kong Island, very few students from other districts would choose to study in these schools. As Schools B and C mainly serve a relatively small community, fluctuations in the local population would affect significantly their enrolment figures. For instance, the number of Secondary Three students in School B was as high as 83 in the 1997-98 school year, i.e. over-enrolled by three. As for School C, it had about 700 students with a class structure 4-4-4-4-4-2-2 (24 classes) in the 1998-99 school year;
  
- (d) as elaborated in sub-paragraph (l) below, School D is not particularly problematic. **The EMB will nevertheless conduct scheduled inspections on School D.** With the implementation of the School Development and Accountability Framework, schools will be covered in a 4-year cycle of external review;

***Vacant classrooms***

- (e) according to the latest statistics, the numbers of registered classrooms in secondary schools range from 9 to 46, with the majority falling anywhere between 24 and 30 inclusive. Against this background, there is naturally and inevitably no perfect match in the numbers of operating classes and registered classrooms in some schools. Such numerical differences do not necessarily represent under-utilisation of education resources. In implementing various new teaching strategies (e.g. split-class teaching to cater for student learning diversity), schools may require additional classrooms. Therefore in many instances, especially in schools of old design which suffer from a lack of space, vacant classrooms have been put to good

use for remedial teaching, student activities, group projects, split-class teaching, etc;

- (f) many secondary schools in Hong Kong were built years ago over different periods of time. Their original school designs reflect the then prevailing policy. For example, when the Government introduced nine-year compulsory education in 1978, the priority was on quantity and the aim was to provide subsidised places in Secondary Four for 85% of Secondary Three leavers. The number of classrooms was limited as a result, so were the number of special-purpose rooms and space provision per student. Floating classes were also a common feature. The education landscape in the 21st century is entirely different. The Year 2000 design includes not only an adequate number of classrooms, but also a generous provision of special rooms to enable IT, life-wide and project learning. While new schools may be built to such a standard, some schools of the old design may require upgrading through, for example, outright reprovisioning, school improvement programme and the conversion of registered classrooms to other uses;
- (g) from a pragmatic perspective, it may not always be possible to use the small number (say, less than five) of vacant classrooms in a school for operating additional classes. If a school uses up *all* of its vacant classrooms for operating a few more junior secondary classes, there will be insufficient classrooms to accommodate all the students when they proceed to higher levels – unless the school is willing to curtail its Secondary One intakes in future years, only to enlarge the number of intakes again when the smaller cohort of junior secondary students proceed to senior levels. The resultant perennial and year-on-year fluctuation of class structure will detract the school from deploying its staff and planning its curriculum effectively;
- (h) the 145 vacant classrooms in Table 3, taken together, amount to only 1.4% of all classrooms available territory-wide in the public schools and provide for only about 5,800 school places. They can be used to provide a very small buffer for operating *additional* classes to meet sudden, transient changes in demand due to various reasons, for example, an isolated upsurge in birth rate in a Year of Dragon. For example, the number of students that participated in the year 2000 SSPA System was 82,419 and the number for the year before was 75,375. The said buffer (5,800) is even smaller than the fluctuation in the demand for places in one single level (7,000);

***Evaluation of school performance***

- (i) the EMB will take into account a whole host of indicators to evaluate the performance of schools. The EMB's value-added score is only one of the many indicators;
  
- (j) a mechanism is in place to periodically review the enrolment situation and assess the performance of schools. Some schools may have good reasons for not operating to the maximum capacity, e.g. to convert some classrooms into special rooms to offer more curricula choice to students;
  
- (k) the EMB is grateful to Audit for highlighting those schools which had five or more vacant classrooms (out of some 400 public sector secondary schools in the territory). Audit uses some qualitative indicators to justify follow-up action recommended for these schools. It is however important to note that the assessment of schools' performance or appeal to parents is "*not a simple matter*". Since schools are unique in their tradition, intakes, education goals and curriculum focus, the EMB's general approach is to assess a school's development against its stated goals and past performance. Indicators must be multi-faceted to reflect adequately, from different perspectives, the complex education process. Using the EMB's academic value-added indicators as an example, they measure just the academic facet but not other affective and social domains. Moreover, value-added scores reflect, from the exit point, a school's teaching and learning against that of schools with similar intakes. Value-added indicators are, by nature and necessity, zero-sum. They are also silent on the absolute academic performance of students. Hence, it is entirely possible that, between a school with a higher value-added score but lower absolute public examination performance and a school with a lower value-added score but more impressive public examination results, parents may well opt for the latter;
  
- (l) when interpreting the value-added scores, possible methodological limitations of statistical analysis must be taken into account. When these are taken into account, School D is considered to have average value-added performance. Moreover, for a fair evaluation of the academic performance of schools, value-added performance in the three core subjects as well as the best six subjects should both be considered;

***Applications for discretionary places***

- (m) it is not correct to conclude that the schools had difficulty attracting and retaining students solely on the basis of the number of applications for Discretionary Places (DP) they had received. The number of DP applications depends on a number of factors such as the school's location, popularity of neighbouring schools, etc. Usually, the majority of DP applications would go to a few very popular schools;
- (n) Audit uses the number of applications for DP received by a school as a key indicator. While the number of DP applicants and number of unfilled places can to a certain extent reflect the popularity of a school, there are other contextual factors which may affect the number of applications received by a school. These factors include parents' perception of its quality, its location, its appeal relative to other schools within the same school net and the available number of DP. All these will affect a parent's school choice strategy. It should be noted that since students are allowed to apply for only one school in the DP application stage, the applicants would naturally flock to a small number of well-known/popular schools, leaving many other schools with relatively fewer applicants. The EMB does not consider the territory-wide average DP application of 137 a meaningful benchmark given the wide range of the number of DP offered and applications received by individual schools. For instance, in Shatin, the highest and lowest numbers of DP applications are respectively 384 and 1 in the 2003 SSPA exercise; and
- (o) to ensure a fair assessment of a school, a myriad of performance data (e.g. students' effective and social outcomes, students' participation in community services, student attendance, stakeholder satisfaction, etc.) should also be considered. The EMB is indeed pursuing a School Development and Accountability Framework in which a balanced set of indicators and data will be used to evaluate the performance of schools *in all key aspects*.

## **PART 3: UNFILLED PLACES IN PUBLIC SECONDARY SCHOOLS**

3.1 This PART reports the under-enrolment problem in some public secondary schools.

### **Background**

3.2 According to the Education Commission Report No. 5 of 1992, research suggests that “small changes in class size have little measurable effect on student performance; marked improvements arise only with a substantial reduction”. Nonetheless, it is commonly accepted that class size is a factor in teacher workload and can affect the quality of education. The EMB’s operating class size standards are **40 students per class** for all classes at Secondary One to Five, and **30 students per class** for classes at Secondary Six and Seven.

### **Audit analysis**

3.3 In September 2002, there were 10,940 operating classes (Note 2) in the 402 public secondary schools. Audit noted that there was under-enrolment in 4,597 classes in which the number of students enrolled was *below* the EMB’s operating class size standards. The total number of unfilled places in these classes was about 20,300. An audit analysis of the 4,597 under-enrolled classes is shown in Table 9.

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**Note 2:** *The number of operating classes was higher than the number of 10,424 available classrooms reported in para. 2.2 because some schools operated floating classes.*

Table 9

**Analysis of 4,597 under-enrolled classes in public secondary schools  
(September 2002)**

No. of unfilled places in each class	No. of classes	
1 – 5	3,247	(71%)
6 – 10	781	(17%)
11 – 15	305	} 569 (12%)
16 or more	264	
	<u><u>4,597</u></u>	

Source: Audit analysis of the EMB's records

3.4 Table 9 shows that the problem was more serious in 569 classes, each of which had eleven or more unfilled places. The EMB allocates resources to public schools mainly based on the number of operating classes, and very often, regardless of the number of students actually enrolled. Under-enrolment implies that the resources allocated are not being utilised in an optimal manner. Audit appreciates that achieving 100% enrolment in all operating classes is not always possible, and that a few unfilled places may be needed to cater for unexpected events. In view of the large number of unfilled places, however, Audit considers that prompt action is required to ensure that the number of unfilled places is kept to an absolute minimum. The 20,300 unfilled places in the 4,597 classes are equivalent to the student capacity of 18 standard secondary schools of 30 classrooms each (Note 3). If the unfilled places are utilised, some of the new schools being planned for completion/commencement of operations in the next five years (see para. 2.2) may not be needed.

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**Note 3:** Based on the EMB's standard class structure, the total number of places provided by a standard secondary school is 1,120. 20,300 unfilled places are thus equivalent to 18 schools ( $20,300 \div 1,120$ ).



3.5 Audit also noted that the under-enrolment situation could be improved by combining classes of the same level in the same school (Note 4). For illustration, a case study is provided in paragraphs 3.6 and 3.7.

**Case study: School E**

3.6 School E is a standard 25-classroom aided school in Kwun Tong District. In September 2002, it operated 15 classes at Secondary One to Three (see Table 10).

**Table 10**  
**Enrolment details for School E**  
**(September 2002)**

Secondary	Operating classes	School places available (Note)	Students enrolled	Unfilled places	Classes that could be reduced
	<b>(a)</b>	<b>(b)</b>	<b>(c)</b>	<b>(d) = (b) - (c)</b>	<b>(e) = (d) ÷ 40</b>
One	5	200	141	59	<b>1</b>
Two	5	200	113	87	<b>2</b>
Three	5	200	157	43	<b>1</b>
				<b>Total</b>	<b><u>4</u></b>

Source: EMB's records

Note: The EMB's operating class standard is 40 students per class.

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**Note 4:** In paragraph 3.17(b) of Chapter 9 of the Director of Audit's Report No. 39, the then Director of Education said that, in respect of under-enrolled classes in primary schools, it was the ED's existing practice to combine as far as practicable under-enrolled classes of the same level for the sake of cost-effectiveness. In some cases, it was operationally necessary to maintain a "buffer" to allow for the admission of a large number of entrants, e.g. newly arrived children from Mainland China, after the school year had commenced.

3.7 Since the EMB's current operating class size standard for Secondary One to Three is 40 students per class, it should be possible for School E to reduce one operating class each at Secondary One and Three, and two at Secondary Two, making a total of four. The resources used to operate these four classes can be put towards other activities that will improve the quality of education.

3.8 Unfilled places indicate that there is under-utilisation of educational resources. Audit considers that the 20,300 unfilled places could be reduced by combining under-enrolled classes of the same level in the same school, as suggested for School E. Audit estimates that, by combining some of the 4,597 under-enrolled classes, it is possible to reduce up to 147 classes – see Appendix A. (This includes 48 classes which could be reduced in 37 ex-prevocational/technical schools mentioned in paragraph 3.18.)

### **Audit recommendations**

3.9 **Audit has recommended that the Secretary for Education and Manpower should keep the enrolment situations of all schools under review, and where feasible direct schools to combine under-enrolled classes of the same level in the same school, to ensure a better utilisation of educational resources.**

### **Response from the Administration**

3.10 **The Secretary for Education and Manpower agrees with Audit's recommendations to keep the enrolment situation of all schools under review and, where feasible, will ask schools to combine classes so as to reduce the number of unfilled places.** Any vacant classrooms arising from combining classes will be dealt with separately. He has also said that:

- (a) the main student allocation mechanism in secondary schools is the SSPA. At the time of allocation, the number of Secondary One students allocated to a school should roughly match with the number of Secondary One places. Thus, the allocation mechanism seeks, among other purposes, to minimise the number of unfilled places. For one reason or another, some students may not choose to enrol in the school allocated. They may apply for another school, thus resulting in unfilled places. These unfilled places may be taken up by other students (a move-over scenario) or left vacant. As a result, while some schools may have under-enrolled classes with less than 40 students each, others may have over-enrolled classes with up to 45 students each. Such movement of students may continue as the same

cohort is promoted to upper forms. There would also be students going abroad, thus possibly leaving more school places unfilled;

- (b) he agrees with Audit that the number of unfilled school places can be reduced by combining the under-enrolled classes of the same level in the same school as far as possible, including School E. Indeed the EMB conducts regular exercises for such a purpose. The EMB's latest class packing exercise has reduced the number of Secondary Two and Three classes in the 2003-04 school year by 50 (or some 2,000 unfilled places). The number of Secondary Three classes in School E has been reduced to four in the current school year;
- (c) it should however be noted that in combining classes, other educational and administrative factors must also be considered. For example, it is most disruptive to the school management to combine classes right at the beginning of a school year immediately after the student headcount. A more practicable way is to combine classes at the promotional level having regard to the under-enrolment situation in the immediately preceding academic year. Consequently not all 147 classes in Appendix A can be reduced;
- (d) from a macro planning point of view, one may look at, in perspective, the 20,300 unfilled school places in 4,597 under-enrolled classes together with the 9,400 additional places accommodated in 4,332 *over-enrolled* classes. Taking these additional places into account, among 10,940 operating classes, the number of "net" unfilled places is about 10,900, or about one unfilled place per class; and
- (e) the unfilled places in many under-enrolled classes scattered in different schools might be difficult to fill, as the EMB could not force students to move from one school to another only to fill up the vacant places there. The unfilled places were a natural fact. This *might not* necessarily represent a system flaw from which one can deduce an under-utilisation or wasteful use of educational resources.

### **Supply of places at Secondary Six and Seven**

3.11 The EMB's operating class size standard for Secondary Six and Seven is 30 students per class. As at September 2002, there were 293 unfilled places in all the

799 Secondary Six classes in public secondary schools, i.e. the average number of unfilled places was less than one per class.

3.12 Audit noted that there was a great demand for Secondary Six places. In 2002, 49,500 of the 122,100 candidates who sat for the Hong Kong Certificate of Education Examination (HKCEE), attained the minimum entry requirements for continuing study in Secondary Six. However, only 29,000 Secondary Six places were available, including places provided by non-public schools. Hence, almost all Secondary Six classes operate at full capacity.

3.13 *However, the number of unfilled places was significantly higher at Secondary Seven.* In September 2002, there were 965 unfilled places at Secondary Seven, compared with only 293 unfilled places at Secondary Six. Of the 369 public schools operating Secondary Six and Seven classes in the school year 2002-03, *198 schools (or 54%) had unfilled places at Secondary Seven.* This indicates that some students no longer study at these schools, perhaps due to factors such as:

- (i) ***Furthering studies abroad.*** According to the EMB, in recent years the number of Hong Kong students going abroad to continue their studies has increased by 55%, from about 9,700 in 1998 to some 15,000 in 2001; and
- (ii) ***Early admission to local universities.*** Since 2002, Hong Kong universities have made offers of admission to *students in Secondary Six* with good HKCEE results. In 2002, 240 students were directly admitted to local universities after completing Secondary Six education.

3.14 Audit considers that the increased number of unfilled places at the Secondary Seven is a matter of concern. Many students could not be admitted to Secondary Six due to the limited number of places, yet many of those admitted choose not to study in Secondary Seven. To deal with this situation, one possible option is to increase the class size of *Secondary Six* classes slightly.

### **Audit recommendations**

3.15 **Audit has recommended that the Secretary for Education and Manpower should:**

- (a) **continue to monitor the growing number of unfilled places at Secondary Seven and ascertain the reasons for it; and**
- (b) **consider increasing slightly the class size standard of 30 students per class for Secondary Six classes so as to admit more Secondary Five school leavers.**

### **Response from the Administration**

3.16 The **Secretary for Education and Manpower** has said that:

- (a) there are various known reasons for the dropout of Secondary Six students, e.g. the Early Admissions Scheme and the decision by some to study abroad. The EMB has no objection to slight over-enrolment at Secondary Six level but considers it educationally undesirable to mandate all schools to do so. Instead, the decision should be best left to the professional judgment of individual schools taking into account such factors as their own enrolment trends in the past, availability of facilities (such as laboratories) and merits of individual applicants;
- (b) for Secondary Six level, all places were filled through the Secondary Six Admission Procedure. In practice, although the Secondary Six standard class size was 30, some schools have already **voluntarily** enrolled more than 30 students in their Secondary Six classes. The average class size in Secondary Seven was less than that in Secondary Six by about one student only, and was considered insignificant from a systemic perspective. In September 2002, against the 293 unfilled places at Secondary Six level, there were 874 additional students accommodated in over-enrolled classes, and against the 965 unfilled places at Secondary Seven level, there were 508 additional students accommodated in over-enrolled classes;
- (c) Secondary Six and Seven curricula are very much academically oriented and aimed at preparing students for admission into tertiary academic institutions. An increase in class size at this level in anticipation of possible dropout due to early admission to local universities or overseas studies would adversely affect the quality of education at Secondary Six and Secondary Seven. Therefore, the educational justification of expanding Secondary Six enrolment as opposed to developing other diversified and career-/interest-related learning opportunities for the less academically inclined merits serious reflection; and

- (d) the quoted numbers of students furthering their studies abroad are in fact the numbers of students visas issued by consulate/commissions of selected countries. They do not provide an actual and complete picture of the overall situation. Besides, the numbers cover students in many grade levels. Without the breakdown by grade level, there is “no evidence” that students dropped out after Secondary Six and furthering their studies abroad are on the rise.

### Utilisation situation in ex-prevocational/technical schools

3.17 As at September 2002, there were 37 ex-prevocational/technical schools operating 924 classes. These schools offer five-year secondary level courses in a wide range of subjects leading to the HKCEE. They place emphasis on technical and commercial subjects and have a strong practical leaning. Audit noted that in these 37 ex-prevocational/technical schools, there were 671 under-enrolled classes (Note 5). In 14 (38%) of them, the situation was more serious (see Table 11).

**Table 11**

#### Utilisation situation in 37 ex-prevocational/technical schools (September 2002)

Utilisation rate	No. of schools
100% or more	2 (5%)
85% to 99%	21 (57%)
70% to 84%	11
Less than 70%	3
	14 (38%)
	37

Source: Audit analysis based on EMB's records

Note: The utilisation rate is assessed by comparing the number of students enrolled with the number of available places (i.e. for Secondary One to Five, 40 students per class × available classrooms; and for Secondary Six and Seven, 30 students per class × available classrooms).

**Note 5:** These 671 classes were included in the 4,597 under-enrolled classes mentioned in paragraph 3.3 above.

3.18 The widespread under-utilisation situation in ex-prevocational/technical schools is a matter of concern. The EMB needs to take urgent action to ascertain the causes of this problem. Audit has estimated that by combining some of the 671 under-enrolled classes in the same schools, it would be possible to reduce the number of operating classes by 48 (see para. 3.8).

### **Audit recommendations**

3.19 **Audit has recommended that the Secretary for Education and Manpower should:**

- (a) **ascertain the reasons behind the serious under-utilisation situation in so many ex-prevocational/technical schools and take appropriate remedial measures; and**
- (b) **where appropriate, reduce the number of operating classes in ex-prevocational/technical schools by combining under-enrolled classes of the same level in the same school.**

### **Response from the Administration**

3.20 **The Secretary for Education and Manpower agrees with Audit's recommendations.** He has also said that:

- (a) the EMB will look into the under-utilisation problem in ex-prevocational/technical schools and the feasibility of combining their classes;
- (b) the EMB will continue to review the curriculum design of ex-prevocational/technical schools;
- (c) ex-prevocational/technical schools have low Secondary One turn-up rates in general. However, the EMB also notes that the school places in some of these schools are in fact fully utilised. The EMB has held active discussions with those aided secondary ex-prevocational/technical schools with low

Secondary One turn-up rate, with a view to restructuring their curriculum to meet the diverse interests and needs of students. Special programmes will be operated in some schools on a pilot basis by making use of the existing resources to provide vocational training for secondary school leavers and non-engaged youths; and

- (d) in general, the under-utilisation reflects parental/student choice in the school allocation mechanism. However, it does not necessarily equate to low educational value of a school, which is a far more complicated matter involving an evaluation of the learning and teaching, school ethos, management and leadership.

### **Caput schools**

3.21 In 1971, when the post-primary education policy was formulated, the supply of public secondary school places was inadequate. The Government considered that it needed to buy secondary school places from private schools, and decided that a grant should be given to non-profit-making private schools for each secondary school place bought. As the amount of grant was offered on a per pupil basis, the grant was named the Per Caput Grant. Since then, the term “caput schools” has been used to describe those non-profit-making private schools in receipt of the Per Caput Grant.

3.22 The Government buys places from the caput schools by paying them a fee supplement based on their actual enrolment. The Government pays the full amount for each bought place in Secondary One to Three classes, and a fee supplement for places in Secondary Four to Seven classes. The fee supplement is the difference between the fees charged by the caput schools and the standard fees charged for the same level in public secondary schools. Caput schools are required to report to the EMB the number of students enrolled *monthly* so that the EMB can determine the amount of financial assistance due. Apart from the Per Caput Grant, the caput schools also receive other forms of government assistance, as follows:

- (a) a separate salaries grant to meet the approved salaries of the teaching staff and laboratory technicians based on the approved establishment;
- (b) payment of employer’s contribution to an approved provident fund scheme;



- (c) insurance coverage through the Block Insurance Policy (Note 6);
- (d) subject grants – same as aided schools; and
- (e) reimbursement of rents and rates – same as other non-profit-making schools.

3.23 In the period from the introduction of the Per Caput Grant in 1971 until the early 1980s, a total of 56 caput schools became aided schools. At present, nine caput schools remain.

3.24 In the 2002-03 school year, the Government bought a total of 7,300 school places from the nine caput schools. Total payments amounted to \$246 million. The average cost of buying a caput school place was about \$34,000 a year (\$246 million ÷ 7,300 places).

#### ***Size and facilities of some caput schools***

3.25 Audit noted that of the nine caput schools, the school premises of six are very small. The site areas range from 1,300 m<sup>2</sup> to 3,000 m<sup>2</sup>, which means that even the largest is 57% smaller than that of a standard school. (The site area of a standard secondary school using the Year 2000 school design is 6,950 m<sup>2</sup>.) Some of these six caput schools were built in the 1950s. Their design may not meet present-day educational requirements (Note 7).

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**Note 6:** *The Block Insurance Policy is an insurance policy arranged by the EMB for aided and caput schools. It provides three elements of coverage:*

- (a) *public liability;*
- (b) *employees' compensation; and*
- (c) *group personal accident.*

**Note 7:** *It is worth noting that, in a letter from the Chairman of the Caput Schools Council to the then Director of Education in December 1999, the Chairman pointed out that, "... .. many of our member schools are really substandard in terms of size and facilities .....*".

***Some caput schools had problems in attracting students***

3.26 Audit analysed the enrolment situations of the nine caput schools as at September 2002 and the number of applications for admission to Secondary One they received in 2002 during the SSPA process (see Tables 12 and 13). Audit noted that some of these schools had difficulties in attracting students.

**Table 12**

**Overall enrolment situation of the nine caput schools  
(September 2002)**

<b>Caput school</b>	<b>No. of students enrolled</b>	<b>No. of unfilled places</b>
F	1,088	46
G	1,181	11
H	734	49
I	319	9
J	932	5
K	568	101
L	1,292	46
M	546	9
N	644	121

*Source: EMB's records*

**Table 13****Number of Secondary One applications  
the nine caput schools received in 2002 during the SSPA process**

<b>Caput school</b>	<b>No. of applications received</b>
F	138
G	64
H	39
I	30
J	20
K	3
L	6
M	0
N	0

Source: *EMB's records*

***EMB's value-added scores for caput schools***

3.27 Audit examined the value-added scores in three core subjects (see Note 1 in para. 2.10) for the nine caput schools and found that their scores varied significantly. Of the nine caput schools, School F was the only one that consistently achieved a positive score over the last three years. *Schools I, K and M, on the other hand, were awarded negative scores for each of the last three years (see Table 14).*

Table 14

**EMB's value-added scores for the nine caput schools  
(2000 to 2002)**

Caput school	2000	2001	2002
F	+3.56	+2.33	+2.60
G	+2.88	-0.42	+6.33
H	-0.64	+2.38	+0.34
I	<b>- 0.48</b>	<b>- 1.57</b>	<b>- 1.49</b>
J	-2.59	+5.64	-5.71
K	<b>- 0.46</b>	<b>- 1.45</b>	<b>- 2.03</b>
L	+2.30	-1.47	-2.12
M	<b>- 3.67</b>	<b>- 3.90</b>	<b>- 0.73</b>
N	-2.05	+4.66	-4.13

Source: EMB's records

***Unfilled places in public secondary schools  
should be used instead of caput school places***

3.28 In September 2002, there were 20,300 unfilled places in public secondary schools (see para. 3.3). This was three times the number (7,300) of school places bought from the nine caput schools in 2002-03. Table 15 shows a comparison, by different levels of secondary education, of the school places provided by the nine caput schools, and the 20,300 unfilled public school places, as at September 2002.

**Table 15**  
**Comparison of school places bought from**  
**caput schools and unfilled places in public secondary schools**  
**(September 2002)**

	<b>No. of places</b>	
<b>Secondary</b>	<b>Unfilled in public secondary schools</b>	<b>Bought from caput schools</b>
One	3,800	1,300
Two	4,600	1,300
Three	5,400	1,400
Four	1,800	1,200
Five	3,400	1,300
Six	300	400
Seven	1,000	400
	<b><u>20,300</u></b>	<b><u>7,300</u></b>

Source: EMB's records

3.29 From Table 15, it is evident that the public secondary schools had more than sufficient unfilled places to absorb the places provided by the caput schools.

**Audit recommendations**

3.30 **Audit has recommended that the Secretary for Education and Manpower should:**

- (a) **consider reducing the number of school places bought from caput schools, having regard to the large number of unfilled places in public secondary schools; and**

- (b) **carry out inspections of caput schools to ensure that school places are only bought from those schools which are properly managed and providing quality education.**

### **Response from the Administration**

3.31 The **Secretary for Education and Manpower** agrees with Audit's recommendations. He has also said that:

- (a) the EMB will critically review the demand for caput schools in different districts and consider reducing the number of places bought from the caput schools with a substantial number of unfilled places;
- (b) the EMB will also carry out inspections on those caput schools which have not been inspected recently;
- (c) allocation of students to caput schools currently takes place at Secondary One as their places are still required to meet the total demand for junior secondary school places. However, as and when surplus Secondary One places occur, some substandard and poor-performing schools, including caput schools, can be phased out gradually;
- (d) the number of DP applicants and number of unfilled places can to a certain extent reflect the popularity of a school. However, deducing therefrom any conclusion on the performance of caput schools as a group is not valid; and
- (e) the value-added scores of the caput schools in Table 14 do not indicate a significant gain or loss on the whole. When limitations of statistical analysis are taken into account, the value-added performance of Schools I and K are considered average in years 2000, 2001 and 2002. Taking into consideration their value-added data on the best six subjects, the academic performance of some caput schools are in fact above average.

## **PART 4: GOVERNMENT SECONDARY SCHOOLS**

4.1 This PART reports on the provision of government secondary schools.

### **Background**

4.2 Secondary education is provided by three types of schools, namely government, aided and non-public schools. Government secondary schools have had a long history in Hong Kong. Nowadays, aided schools are the major providers of secondary education. The providers of secondary education are shown in Table 16.

**Table 16**

**Secondary education by type of provider  
(September 2002)**

	<b>No. of schools</b>		<b>No. of students</b>	
Aided schools	366	74%	371,900	81%
Government schools	36	7%	36,800	8%
Non-public schools	94	19%	52,600	11%
	<u>496</u>	<u>100%</u>	<u>461,300</u>	<u>100%</u>

*Source: EMB's records*

### **Report of the Director of Audit of March 1990 on provision of government schools**

4.3 In Chapter 7 of Report No. 15 of the Director of Audit of March 1990, Audit reviewed the provision of government schools. The major audit observations relating to government secondary schools were as follows:

- (a) a standard government secondary school cost \$3.6 million a year (or 28%) more to operate than an aided school;
- (b) the spirit of the 1965 White Paper on Education Policy was to reduce wherever possible the number of government secondary schools, thereby releasing the resources to be used more economically in the aided sector and permitting a faster rate of expansion of education facilities at a time of increasing demand;
- (c) guidelines or criteria for determining the number and location of government schools did not exist; and
- (d) a decision should be made on whether new schools should be built or whether existing government schools should be converted to aided schools.

4.4 In June 1990, in its Report No. 15, the Public Accounts Committee (PAC) concluded that the intention underlying the policy was to phase out existing government schools where appropriate, since this would result in a more economical use of the scarce resources available and lead to faster future expansion of educational facilities. The PAC recommended, among other things, that the conversion of existing government schools to aided schools should be explored once the optimum number of government schools had been established, and that a conversion plan should be drawn up taking into account any administrative problems that might arise.



## Objectives of government schools

4.5 In response to the PAC's recommendations, in 1993 the Administration stated in the Government Minute (Note 8) that the then Director of Education had reviewed the policy on the provision of government schools. The purpose of government schools was to meet objectives which could **not** be met by aided schools, namely:

- (a) the then ED must have first-hand experience of running schools if it was to have sufficient expertise and authority to administer the school system as a whole;
- (b) government schools acted as a safety net for children who might find it difficult to obtain a place in an aided school, e.g. over-aged children, new immigrants and slow learners;
- (c) government schools provided education for minority groups (e.g. Vietnamese children) which aided schools might be reluctant to provide;
- (d) government schools met demand in emergency situations, such as the phasing out or sudden closure of schools; and
- (e) government schools provided a testing ground for experimental teaching methods and practices.

4.6 In June 1993, the then Secretary for Education and Manpower and the then Secretary for the Treasury accepted the recommendation of the then ED on the provision of government schools. The guidelines for the provision of government schools were:

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**Note 8:** *Tabled in the Legislative Council in May 1993.*

- (a) the number of places in government schools should be frozen at the present level, except for the phasing out of a few small substandard schools; and
- (b) as a broad guideline, each district should have one government school at each level in order to achieve an even geographical distribution.

### **Audit review**

4.7 Audit recently conducted a follow-up review on the provision of government secondary schools. Audit found that the following issues need to be addressed:

- (a) ***Distribution of government secondary schools.*** Government secondary schools were not evenly distributed across the 18 districts. Twelve districts had more than one government secondary school; five districts had one; and one district had none (see paras. 4.8 and 4.9);
- (b) ***Objectives of government secondary schools.*** It may be possible to meet the objectives of government secondary schools by other means (see paras. 4.10 and 4.11);
- (c) ***Utilisation of government secondary schools.*** Some government secondary schools are under-utilised (see paras. 4.12 to 4.15); and
- (d) ***Cost of government secondary schools.*** See paragraphs 4.16 and 4.17.

### **Distribution of government secondary schools**

4.8 The number of government secondary schools decreased from 40 in 1989 to 36 as at September 2002. However, the 36 schools are not evenly distributed across the 18 districts (see Table 17). The broad guideline that each district should have one government secondary school has not been followed (see para. 4.6(b)).

**Table 17****Distribution of 36 government secondary schools by district  
(September 2002)**

<b>District</b>	<b>No. of schools</b>
Central and Western	1
Wan Chai	3
Eastern	4
Southern	0
Sham Shui Po	1
Kowloon City	2
Wong Tai Sin	1
Kwun Tong	2
Yau Tsim Mong	2
Kwai Tsing	2
Tsuen Wan	1
Tuen Mun	2
Yuen Long	4
North	3
Tai Po	2
Shatin	3
Sai Kung	1
Islands	2
	<hr/> <b>36</b> <hr/>

Source: EMB's records

4.9 Of the 18 districts, five (namely, Central and Western, Sham Shui Po, Wong Tai Sin, Tsuen Wan and Sai Kung) have one government secondary school each. Twelve districts have more than one school. The Eastern and Yuen Long districts each have four schools, while the Southern district has none.

### **Objectives of government secondary schools could be met by other means**

4.10 One of the objectives of providing government schools was to gain first-hand experience of running schools and to provide a testing ground for experimental teaching methods and practices (see para. 4.5). This objective could also be met, however, by means such as seconding EMB staff to aided schools to gain such experience. Experimental teaching methods and practices could also be explored in collaboration and partnership with aided schools.

4.11 The EMB needs to revisit the objectives of providing government secondary schools to see whether they are still valid given present-day circumstances.

### **Utilisation of government secondary schools**

4.12 Audit reviewed the utilisation situation of the 36 government secondary schools as at September 2002. Some schools had serious under-utilisation problems (see Table 18).

Table 18

**The utilisation situation of government secondary schools  
(September 2002)**

Utilisation rate	No. of schools	
Less than 70%	2	} 5 (14%)
70% to 84%	3	
85% to 99%	16	(44%)
100% or more	15	(42%)
	<b>36</b>	

Source: Audit analysis based on EMB's records

Note: Utilisation rate is calculated by comparing the number of students enrolled with the number of available places (i.e. for Secondary One to Five, 40 students per class × available classrooms; and for Secondary Six and Seven, 30 students per class × available classrooms).

4.13 Table 18 shows that the utilisation rates of five government schools were less than 85% as at September 2002. In two of these schools (i.e. Schools O and P), the utilisation rates were particularly low, standing at only 30% and 46% respectively. These two schools had difficulties in attracting students. In 2002, School P received 40 Secondary One applications, while School O received no applications. More information about these two schools is in paragraphs 4.14 and 4.15.

### **School O**

4.14 School O is a 23-classroom government school in Islands District. It is the only secondary school in the area. As at September 2002, it operated only 11 classes (and had 12 vacant classrooms). There were 142 unfilled places in its 11 operating classes. However, Audit noted that there was little scope for combining the operating classes. This was because School O only operated one class each at Secondary One to Three, and two classes each at Secondary Four to Seven (i.e. one class each for the arts and science streams). Of the 258 students enrolled as at September 2002, 68 lived near the school.

**School P**

4.15 School P is a new 30-classroom government school in Kowloon. It began operation in 2000-01. As at September 2002, it operated 20 classes and had 258 unfilled places. It had 10 vacant classrooms. Audit noted that School P's unfilled places situation could be improved by combining under-enrolled classes of the same level. According to Audit's assessment, it would be possible to reduce the number of operating classes at School P by three (see Table 19).

**Table 19**

**Enrolment situation at School P  
(September 2002)**

Secondary	← ----- Number of ----- →				
	Operating classes	School places available	Students enrolled	Unfilled places	Classes that could be reduced
	(a)	(b)	(c)	(d) = (b) - (c)	(e) = (d) , 40
One	4	160	108	52	<b>1</b>
Two	4	160	129	31	-
Three	5	200	138	62	<b>1</b>
Four (Science)	1	40	26	14	-
Four (Arts/Business)	3	120	72	48	<b>1</b>
Five (Science)	1	40	30	10	-
Five (Arts)	1	40	18	22	-
Five (Arts/Science)	1	40	21	19	-
	<u><b>20</b></u>				<u><b>3</b></u>

Source: EMB's records

## Cost of government secondary schools

4.16 Government secondary schools and aided secondary schools use a similar manning scale. However, government secondary schools cost more to operate than aided secondary schools. In 2002-03, the average operating cost of government secondary schools was \$44,353 per student, while that of aided secondary schools was \$34,340. The cost differential was \$10,013 per student (or 29%). The annual operating cost of a standard government secondary school would be \$11.2 million lower if it were operated by the aided sector (Note 9).

4.17 Audit noted that the major factor in the cost difference between operating a government school and an aided school is that staff in government schools are employed on civil service terms. They enjoy better fringe benefits than their counterparts in aided secondary schools. The fringe benefits include a non-contributory pension, housing allowance and medical benefits (Note 10).

4.18 The audit findings in paragraphs 4.8 to 4.17 suggest that the EMB needs to examine the justification for continuing to run 36 government secondary schools, especially given the existence of vacant classrooms and unfilled places in some of these schools.

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**Note 9:** *The \$11.2 million is calculated by multiplying the cost differential of \$10,013 by 1,120, which is the average number of school places provided in a standard government secondary school.*

**Note 10:** *In this regard, the EMB has informed Audit that:*

- (a) *new government school teachers will be hired either on non-civil service contract terms or on the new civil service “three plus three” terms; and*
- (b) *compared to the old civil service terms, fewer fringe benefits are being offered to new teachers. However, compared to the contract terms used for hiring aided school teachers, the new terms offered to new government school teachers still provide better fringe benefits.*

*Civil servants employed on the new “three plus three” terms must complete a three-year probation period followed by a three-year contract period before being appointed on a permanent basis.*

## **Audit recommendations**

4.19 **Audit has recommended that the Secretary for Education and Manpower should:**

- (a) **critically examine the objectives of providing government secondary schools to see whether they are still valid, having regard to present-day circumstances;**
- (b) **closely monitor the utilisation situation in some government secondary schools (e.g. School O) and implement necessary improvement measures; and**
- (c) **where practicable, take action to reduce the number of, and combine the operating classes in government secondary schools (e.g. School P).**

## **Response from the Administration**

4.20 The **Secretary for Education and Manpower** has said that the EMB set up a Working Group to review the future roles and development of government schools taking into account the changing societal needs and trends in student population. The EMB will take into account Audit's recommendations in the review. He has also said that:

- (a) the EMB would take a pragmatic and flexible approach to reduce vacant classrooms and unfilled places in government schools. Just as in the case of aided schools, there may be valid educational reasons for not using every spare classroom for operation of additional classes;
- (b) School O is the only secondary school in Mui Wo, Lantau. Even though there are other schools in Lantau, students living in Mui Wo may find it inconvenient to go to these schools. That said, the EMB would explore possible ways to optimise the available resources in School O in view of the decline in enrolment;



- (c) School P in Yau Tsim Mong is the only government secondary school providing educational services for the non-Chinese speaking ethnic minority students. In addition, the EMB considers it prudent to allow some buffer for fluctuations in the number of students during the school term. That said, the EMB will review the future of School P in the light of the progress in the implementation of the integration policy;
- (d) the high operating cost of government schools is mainly due to the high staff cost which includes fringe benefits for civil servants. Starting from the 2003-04 school year, there has been a recruitment freeze for all government school teaching posts. Temporary teachers will be employed to fill the teaching vacancies. For more cost-effective use of resources, government schools would continue to contract out janitor and clerical services;
- (e) government schools have been playing a leading role in implementing many education initiatives, such as opening up School Management Committees to parents and community members, enrolling “over-aged” students and those who have learning or emotional problems. Some of them also assist substantially in addressing the educational needs of particular groups of students (e.g. School O for students living in Mui Wo, Lantau and School P for non-Chinese speaking ethnic minority children); and
- (f) relocation of existing government secondary schools to other districts (to ensure a more even district distribution of these schools) would have to take into consideration site availability and demand for secondary school places.

## **PART 5: MODEL FOR PROJECTING FUTURE SUPPLY AND DEMAND FOR PUBLIC SECONDARY SCHOOL PLACES**

5.1 This PART reviews the EMB's model for projecting the future supply and demand for public secondary school places.

### **EMB's current provision targets for secondary school places**

5.2 The EMB's current provision targets for secondary school places are as follows:

- (a) ***For Secondary One to Three:*** 100% of children in the 12 to 15 age group (but excluding those attending English Schools Foundation schools and other international schools);
- (b) ***For Secondary Four and Five:*** about 95% of all Secondary Three students to be offered subsidised Secondary Four and Five school places; and
- (c) ***For Secondary Six and Seven:*** in any year, about one-third of the number of Secondary Four students two years before.

5.3 Under the current provision policy, the provision of public secondary school places is planned on a territory-wide basis. If a shortfall is identified, new schools are planned and built. To help decide where new schools should be built, assessments of the supply and demand situation at the District level are made. To ensure that the provision targets are met, the EMB uses a model to regularly project the future supply and demand for public secondary school places.

## EMB's methodology for projecting supply and demand for secondary school places

5.4 **Demand projection.** The projected demand for secondary school places to be provided by the public sector is assessed according to the following parameters:

- (a) **Secondary One to Three.** The projected demand for Secondary One school places is based on the number of primary six students. The same number of Secondary Two and Three school places is then provided for the same student population in subsequent years;
- (b) **Secondary Four and Five.** The projected demand for Secondary Four places is derived by applying a five-percent reduction factor on the projected Secondary Three enrolment one year earlier. The demand for Secondary Five places is expected to be the same as the demand for Secondary Four places a year earlier (Note 11); and
- (c) **Secondary Six and Seven.** The projected demand for Secondary Six places in any given future year is derived by taking one-third of the number of subsidised Secondary Four places two years earlier. The number of Secondary Seven places is assumed to be the same as that of Secondary Six a year earlier.

5.5 **Supply projection.** The EMB's projections of the future supply of public secondary school places are generally based upon data on the planned class structure of existing secondary schools, which is updated annually by the District School Development Section of the EMB. The planned class structure of a secondary school refers to the planned number of its operating classes at each level over the next ten years. The total estimated supply of secondary school places from *existing* secondary schools at each level from 2003 to 2012 is derived by **(a)** minus **(b)** plus **(c)**, where:

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**Note 11:** *Although the EMB is aware of the fact that the repetition rate in Secondary Five is higher than that in lower levels, it considers that the additional demand so generated should be absorbed by schools in the private sector.*

- (a)** is the total number of school places (derived from the total number of operating classes and the class size standards) in:
- (i) all secondary schools in the public sector;
  - (ii) the caput schools; and
  - (iii) 100% of senior secondary schools under DSS, and 60% of the classes in other DSS schools;
- (b)** is the number of school places in secondary schools which are scheduled for *closure* in coming years, in accordance with the schools' planned phasing-out class structure; and
- (c)** is the number of school places that will be provided by *new secondary schools which have been included in the EMB's School Building Programme* (but excluding new schools that are still under review). For a new school with 30 classrooms, the class structure is five classes each in Secondary One to Five, and two classes each in Secondary Six and Seven.

### **Supply and demand for public secondary school places between 2003 and 2012**

5.6 The latest projection of the supply and demand for public secondary school places made by the EMB in 2002 covers the period between 2003 and 2012 (see Table 20).

**Table 20**

**EMB's projection of overall supply and demand  
for public secondary school places between 2003 and 2012**

<b>Year</b>	<b>Supply (Note)</b>	<b>Demand</b>	<b>Shortfall</b>	<b>Surplus</b>
	<b>(a)</b>	<b>(b)</b>	<b>(c) = (a) - (b)</b>	<b>(d) = (a) - (b)</b>
2003	457,000	462,100	(5,100)	
2004	468,200	472,800	(4,600)	
2005	476,200	480,500	(4,300)	
2006	481,300	488,100	(6,800)	
2007	483,800	492,500	(8,700)	
2008	484,600	493,100	(8,500)	
2009	484,600	486,700	(2,100)	
2010	484,600	474,700		9,900
2011	484,600	458,600		26,000
2012	484,600	442,900		41,700

Source: EMB's records

Note: In making the projection for the overall supply of public secondary school places, the EMB has taken into account the number of school places provided by the DSS and caput schools.

5.7 As can be seen from Table 20, the supply of public secondary school places is insufficient to meet demand between 2003 and 2009. However, supply will exceed demand from 2010. Details of the expected surplus/shortfall of school places at different secondary levels between 2003 and 2012 are shown in Appendix B.

5.8 Audit analysed the projected shortfall into different levels of secondary education between 2003 and 2009. Between 2003 and 2007, the shortfall would mainly pertain to Secondary One to Three. In 2008, the shortfall would be evenly distributed between Secondary One to Three and Secondary Four to Five. In 2009, the shortfall would mainly pertain to Secondary Four and Five – see Table 21.

**Table 21**

**Breakdown of shortfall in public secondary school places  
between 2003 and 2009 as projected by the EMB**

Year	Total shortfall	Breakdown	
		Secondary One to Three	Secondary Four and Five
2003	8,800	5,600 (64%)	3,200 (36%)
2004	8,600	6,600 (77%)	2,000 (23%)
2005	7,300	7,100 (97%)	200 (3%)
2006	9,700	8,300 (86%)	1,400 (14%)
2007	12,500	8,400 (67%)	4,100 (33%)
2008	12,300	6,100 (50%)	6,200 (50%)
2009	10,400	3,000 (29%)	7,400 (71%)

Source: EMB's records

**EMB might not have fully taken into account all available secondary school places**

5.9 Audit noted that, in making the projections, the EMB might not have fully taken into account all available school places because:

- (a) some of the 145 existing vacant classrooms could be utilised to provide additional school places – see PART 2;
- (b) the number of school places reserved for repeaters at Secondary One to Three could be reduced – see paragraphs 5.10 and 5.11;
- (c) more places provided by DSS schools (see para. 1.5) could be taken into account – see paragraphs 5.12 and 5.13; and
- (d) not all new schools under planning for completion between now and 2008 were included in the projections – see paragraphs 5.14 and 5.15.

***Provision of school places for repeaters at Secondary One to Three***

5.10 Audit noted that the class size used by the EMB in calculating the supply of secondary school places at Secondary One to Five was 38, rather than the standard size of 40. The difference of two school places was to accommodate repeaters. However, Audit noted that the average number of repeaters at Secondary One to Three was one (only 0.83 in numerical terms) per class during the period 1999 to 2001 (see Table 22). It seems that the projection includes over-provision of one place per class in all schools at Secondary One to Three, to accommodate repeaters.

**Table 22**

**Average number of repeaters at Secondary One to Three  
between 1999 and 2001**

Year	No. of operating classes	No. of repeaters	No. of repeaters per class
	(a)	(b)	(c) = (b) ÷ (a)
1999	6,105	5,311	0.87
2000	6,195	5,093	0.82
2001	6,311	5,040	0.80
		<b>Average</b>	<b>0.83</b>

Source: EMB's records

5.11 Audit has estimated that if the number of school places reserved for repeaters is reduced to only one for each class at Secondary One to Three, some 5,900 additional school places could be made available a year (Note 12). These school places could help alleviate the shortfall situation at Secondary One to Three between 2003 and 2009 – see Table 21.

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**Note 12:** *The number of operating classes at public Secondary One to Three in 2003 is 5,911. If only one school place is provided in each class for repeaters, some 5,900 extra school places would become available.*



***Provision of places by DSS schools***

5.12 Audit noted that as at September 2002, there were 31 DSS secondary schools providing 29,900 DSS school places (Note 13). 22,900 DSS students were enrolled in these DSS schools, representing an average utilisation rate of 77%. Some DSS schools were popular and enjoyed a high utilisation rate. The utilisation rates of the 31 DSS schools ranged from 56% to 107% (see Table 23).

**Table 23**

**Utilisation rates of DSS schools**

<b>Utilisation rate</b>	<b>No. of schools</b>
0% – 50%	0 –
51% – 60%	3 (9%)
61% – 70%	3 (9%)
71% – 80%	5 (16%)
81% – 90%	7 (23%)
91% – 100%	7 (23%)
Above 100%	6 (20%) (Note)
	<hr/> <b>31</b> <hr/>

*Source: Audit analysis based on EMB's records*

*Note: The utilisation rates of these six schools ranged from 101% to 107%.*

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**Note 13:** *The available DSS school places are calculated by multiplying the EMB's class size standards (i.e. for Secondary One to Five, 40 students per class; and for Secondary Six and Seven, 30 students per class) by the number of DSS operating classes and vacant classrooms.*

5.13 Audit noted that the EMB had not taken into full account the school places provided by DSS schools in making the projections for supply of public secondary school places. For example, in making the projection for the 2002-03 school year, the EMB had only taken into account 14,900 DSS school places. Compared to the actual number of DSS students of 22,900 as at September 2002, the number of DSS school places that the EMB took into account was on the low side.

***New schools under planning not included in the projection***

5.14 According to the ED's School Building Programme of March 2003, a total of 34 new secondary schools will be *completed* by 2008. However of these 34 new schools, only the places to be provided by 24 schools (to be completed by 2006) were included in the EMB's 2002 projection. 11,200 school places (i.e. 10 schools × 1,120 places) had *not* been taken into account. This was because the projects for building these ten schools were only finalised *after* the 2002 supply and demand projection had been made.

5.15 In Audit's view, these 11,200 school places should also be taken into account. This would reduce the projected shortfall of places between 2003 and 2009.

**Audit recommendations**

5.16 **Audit has recommended that the Secretary for Education and Manpower should:**

- (a) **re-examine the projection of supply and demand for public secondary school places;**
- (b) **in making the projection, consider reducing the number of school places reserved for repeaters;**
- (c) **periodically review the number of DSS school places to be taken into account in making the projection; and**

- (d) **in future, in making a projection for school places where the planning horizon is up to a certain year (say 2009), take into account all the schools that will be built by that year according to the EMB's School Building Programme.**

### **Response from the Administration**

5.17 The **Secretary for Education and Manpower** has said that:

***Supply and demand for public secondary school places between 2003-12***

- (a) he agrees with the audit recommendation that the EMB should regularly re-examine the projection of supply and demand for public secondary school places;
- (b) the EMB's projection model is a tool for planning. Like any forecasts, it is, by necessity, based on a number of assumptions about relevant future developments, and rarely are all the assumptions borne out by subsequent development. The EMB will continue to try its best to make the forecast as reliable as possible. The data in EMB's forecast are officially updated annually in the last quarter of the year. Each update hence provides a snapshot;
- (c) the projection cited in Table 20 is based on the forecast updated in the last quarter of 2002. It showed that in the coming decade, the demand for secondary school places would peak in 2008 when there would be a shortfall of some 8,500 places. Work was therefore in hand to close this shortfall, principally through the planning of new schools. New places added to the overall supply which would lead to a smaller or nil shortfall in 2008, would be formally reflected in the next projection update due in the last quarter of 2003;
- (d) the 2002 projection shows a surplus of school places starting from 2010, principally due to a decline in overall demand. In anticipation of this, action is in hand to make the best use of the opportunity to upgrade the quality of

education. For example, measures are in place so that ineffective or unpopular schools can be identified early for appropriate follow-up. In addition, consideration will be given to reprovisioning well-performing schools which are currently accommodated in substandard facilities. The EMB's overall aim is to ensure effective use of resources;

***Possible inclusion of vacant classrooms in the projected supply***

- (e) the projection of supply and demand is updated annually, including the projection of supply of classes in individual schools. The number of classes that a school may operate depends on a number of factors, including the overall demand and supply of school places, parental choice, the number of classrooms available, the desirable class structure for the long-term developments of the school and other special circumstances, if any. As an annual exercise, the EMB will take into consideration the above factors and agrees with schools their class structures to achieve, among other objectives, the optimal use of the available classrooms;
  
- (f) the provision of classrooms (i.e. physical accommodation) and planning the provision of school places (i.e. in terms of classes and recurrent costs) are two different issues. Supply is affected more by the class structure of schools. The feature of floating classes helps illustrate this. Due to the existence of floating classes, the total number of operating classes was in fact larger than the total number of classrooms in all public secondary schools (see Note 2 in para. 3.3). Since it is highly undesirable from an education point of view to regard floating classes as a permanent feature, the EMB should work towards their elimination progressively. However, the EMB's forecast model has included floating classes in the supply of school places and in effect has suppressed the shortfall in school places. Addition of "vacant" classrooms to the supply side would only aggravate the suppression and this would not be conducive to the progressive elimination of floating classes through measures including the School Building Programme;

***Provision of school places for repeaters***

- (g) allowing two repeater places is only one of the many planning parameters being adopted in assessing the "supply". Some schools may not have any repeaters and other schools may need more repeater places. Reducing the

repeater quota across the board in all schools may inadvertently hinder school-based efforts to enhance learning effectiveness;

- (h) from a macro planning point of view, the building of new schools is a function of the **aggregate** supply and demand situation. The current provision (i.e. two places per class or 5%) for repeaters was appropriate as it was close to the overall repetition rate in Secondary One to Five. The use of two repeaters per class therefore would not lead to over-provision of places overall;

### ***Supply of places provided by DSS schools***

- (i) DSS schools receive public subvention on a per capita rather than class basis. In return for this greater exposure to market mechanism, DSS schools also enjoy greater autonomy when compared to aided and government schools. DSS schools are fee-charging though the fee level differs greatly among them. Given the policy of providing nine-year free and compulsory education to all eligible children, the allocation of Secondary One places in DSS schools is subject to the “non-allocation without choice” principle. In other words, not all DSS places are usable for the provision of junior secondary school places. The EMB has, after much deliberation and partly with a view to promoting effective use of resources, adopted a forecast model that takes into account 100% of classes in DSS Senior Secondary schools and 60% of classes in other local DSS secondary schools. According to the 2002 forecast, as more senior secondary DSS schools are coming on stream in the next few years, the EMB has in fact as a whole factored in some 72% provision of DSS places in the projected supply from 2005 onwards;
- (j) the DSS policy was revamped substantially in 2000-01. It is pertinent to note that, due to historical reasons, DSS schools constitute a category with great internal diversity. Some were originally bought-place private schools, while some were originally aided or ordinary private schools. Given their different backgrounds, they may adopt quite different modes of operations within the DSS framework. For instance, some DSS schools, particularly those formed after 2001 and which were once popular aided schools with good academic track record, may adopt a smaller class size. The proportion of DSS classes with size at or above 40 was about the same in 2001 and 2002 (51%) but it was smaller than that in 2000 (58%);

- (k) the growth of DSS under the revamped policy is still at a nascent stage and it is thus prudent to observe for a few more years before deciding if the EMB's planning parameters should be further revised. The EMB will continue to monitor the development of DSS schools closely, with particular attention on the possible emergence of any settled enrolment patterns. Where appropriate, the EMB will consider adjusting the assumptions used in the supply forecast;

***Inclusion of all new schools  
being planned in making the projection***

- (l) he agrees with the audit recommendation, and that all new schools are included and will continue to be included automatically in the annual update;
- (m) the EMB's projection which Audit referred to in paragraph 5.14 is an annual one completed in the last quarter of 2002. Naturally, it could not have taken into account the ten new projects added to the School Building Programme only in March 2003. The addition of the ten school projects in March 2003 to the Programme is meant to close the projected shortfall in the provision of school places as identified in 2002. The next formal update due in the last quarter of 2003 will reflect such addition (and indeed all further changes, if any) to the School Building Programme; and
- (n) the updating of the projection and of the School Building Programme is therefore an interactive process. There is no question of under-estimating the supply of school places because of non-inclusion of projects before formal updating.

**Audit methodology for assessing  
the number of classes that could be reduced**

1. The methodology for estimating the number of classes that could be reduced by combining classes with a large number of unfilled places of the same level and in the same school is as follows:

**Secondary One to Five classes.** Audit first reviewed the enrolment records of all schools by each level. Schools with 40 (i.e. the class size standard for Secondary One to Five classes) or more unfilled places, at any of their Secondary One to Five were identified. Audit then divided by 40 the number of unfilled places at each level of each school identified and added the results; and

**Secondary Six and Seven classes.** The same approach was used, except that a different class size standard (i.e. 30 students a class) was used.

2. The following table is an analysis of the 147 classes that could be reduced in all public secondary schools, including the 37 ex-prevocational/technical schools:

No. of classes that could be reduced in each school	No. of classes that could be reduced in				
	No. of ex-prevocational/ technical schools	No. of other public schools	Ex-prevocational/ technical schools	Other public schools	All schools
(a)	(b)	(c)	(d) = (a) × (b)	(e) = (a) × (c)	(f) = (d) + (e)
1	6	24	6	24	30
2	2	8	4	16	20
3	1	8	3	24	27
4	6	5	24	20	44
5	1	3	5	15	20
6	1	–	6	–	6
			<u>48</u>	<u>99</u>	<u>147</u>

Source: EMB's records

**Overall surplus/(shortfall) of public secondary school places  
between 2003 and 2012 according to the EMB's projection**

<b>Year</b>	<b>Surplus / (shortfall) places in Secondary</b>							<b>Net surplus/ (shortfall)</b>
	<b>One</b>	<b>Two</b>	<b>Three</b>	<b>Four</b>	<b>Five</b>	<b>Six</b>	<b>Seven</b>	
2003	(1,900)	(1,800)	(1,900)	(2,000)	(1,200)	2,100	1,600	<b>(5,100)</b>
2004	(2,900)	(1,900)	(1,800)	0	(2,000)	1,900	2,100	<b>(4,600)</b>
2005	(2,300)	(2,900)	(1,900)	(200)	0	1,100	1,900	<b>(4,300)</b>
2006	(3,100)	(2,200)	(3,000)	(1,200)	(200)	1,800	1,100	<b>(6,800)</b>
2007	(3,000)	(3,100)	(2,300)	(2,800)	(1,200)	1,900	1,800	<b>(8,700)</b>
2008	300	(3,000)	(3,100)	(3,300)	(2,900)	1,600	1,900	<b>(8,500)</b>
2009	5,400	300	(3,000)	(4,100)	(3,300)	1,000	1,600	<b>(2,100)</b>
2010	10,600	5,400	300	(4,200)	(4,100)	900	1,000	<b>9,900</b>
2011	13,900	10,600	5,400	(1,200)	(4,200)	600	900	<b>26,000</b>
2012	13,900	13,800	10,600	3,400	(1,200)	600	600	<b>41,700</b>

Source: EMB's records



**Acronyms and abbreviations**

DP	Discretionary Places
DSS	Direct Subsidy Scheme
ED	Education Department
EMB	Education and Manpower Bureau
HKCEE	Hong Kong Certificate of Education Examination
PAC	Public Accounts Committee
SSPA	Secondary School Places Allocation