

PUBLIC POLICY SOURCES

Number 22

The 1999 Report Card on British Columbia's Secondary Schools

Peter Cowley, Stephen Easton, and Michael Walker

Contents

<i>Introduction</i>	3
<i>A Measure of Performance for Secondary Schools</i>	8
<i>Ranking British Columbia's Secondary Schools</i>	10
<i>Reading the Tables</i>	18
<i>Detailed Tables</i>	21
<i>A Final Word</i>	74
<i>Appendix 1: Rationale for Inclusion of Indicators</i>	75
<i>Appendix 2: Parent's Average Education</i>	79
<i>Appendix 3: Decile Range Tables</i>	81
<i>About the Authors & Acknowledgments</i>	82

Public Policy Sources are published periodically throughout the year by The Fraser Institute, Vancouver, British Columbia, Canada.

The **Fraser Institute** is an independent Canadian economic and social research and educational organization. It has as its objective the redirection of public attention to the role of competitive markets in providing for the well-being of Canadians. Where markets work, the Institute's interest lies in trying to discover prospects for improvement. Where markets do not work, its interest lies in finding the reasons. Where competitive markets have been replaced by government control, the interest of the Institute lies in documenting objectively the nature of the improvement or deterioration resulting from government intervention. The work of the Institute is assisted by an Editorial Advisory Board of internationally renowned economists. The Fraser Institute is a national, federally chartered non-profit organization financed by the sale of its publications and the tax-deductible contributions of its members, foundations, and other supporters; it receives no government funding.

For information about membership in The Fraser Institute, please contact the Development Department via mail to: The Fraser Institute, 4th Floor, 1770 Burrard Street, Vancouver, BC, V6J 3G7; via telephone: 604.688.0221 ext. 586; via fax: 604.688.8539; via e-mail: membership@fraserinstitute.ca.

In Calgary, please contact us via telephone: 403.216.7175; via fax: 403.234.9010; via e-mail: paulineh@fraserinstitute.ca.

In Toronto, please contact us via telephone: 416.363.6575; via fax: 416.601.7322.

To order additional copies of Public Policy Sources, any of our other publications, or a catalogue of the Institute's publications, please contact the **book sales coordinator** via our **toll-free order line: 1.800.665.3558, ext. 580**; via telephone: 604.688.0221, ext. 580; via fax: 604.688.8539; via e-mail: sales@fraserinstitute.ca.

For media enquiries, please contact **Suzanne Walters**, Director of Communications via telephone: 604.714.4582 or, from Toronto, 416.363.6575, ext. 582; via e-mail: suzannew@fraserinstitute.ca

To learn more about the Institute, please visit our web site at www.fraserinstitute.ca.

Copyright© 1999 The Fraser Institute. All rights reserved. No part of this book may be reproduced in any manner whatsoever without written permission except in the case of brief quotations embodied in critical articles and reviews.

The authors of this study have worked independently and opinions expressed by them are, therefore, their own, and do not necessarily reflect the opinions of the members or trustees of The Fraser Institute.

Editing and design: Kristin McCahon and Lindsey Thomas Martin

Printed and bound in Canada.

ISSN 1206-6257.

Introduction

In March 1998, the Fraser Institute published *A Secondary Schools Report Card for British Columbia* (hereafter, *Report Card 1998*). For the first time, a variety of relevant, publicly available data were combined to produce an academic rating of the province's public and independent secondary schools. The rating was based on student results data provided by the BC Ministry of Education. For each school, there were five indicators of school performance: (1) the average provincial examination mark; (2) the percentage of provincial examinations failed; (3) the difference between the average examination mark and the average school mark; (4) the graduation rate; and (5) the number of provincial examinable courses taken per student. From these statistics, a rating for each of the five school years 1992/1993 through 1996/1997 was calculated.

In *The 1999 Report Card on British Columbia's Secondary Schools*, we include explicit indicators of the trends in each indicator of school performance during the past six years. These trends should be of particular interest to parents about to decide which high school their child is to attend as well as to taxpayers interested in how their money is being invested.

Report Card 1998 generated considerable discussion. Some felt that the measurement of something so complex as school performance was virtually impossible and would only lead to frustration, confusion, and antagonism among parents, teachers, and administrators. Others accepted the *Report Card 1998's* overall ratings as the only evidence they needed that public schools in the province were failing miserably. Many more felt—as we do—that a report card for British Columbia's secondary schools is both a

much needed tool in the effort to improve our schools and a useful input for parents interested in selecting the education provider best suited to their children's needs.

We are aware that *Report Card 1998* has already stimulated action at schools where previously no action was taking place. Meetings to discuss issues arising from the data in *Report Card 1998* have involved parents, teachers, counsellors, and school officials. To the extent that these meetings result in improvements, we are much encouraged.

It is in this spirit that we are pleased to present *The 1999 Report Card on British Columbia's Secondary Schools*. We hope that all readers will use it, not as a battleground, but as the basis for constructive discussion and action leading to real improvement. We have closely considered the comments received from educators, parents, government officials, and other interested citizens. Some of their suggestions have been incorporated into this edition. Other improvements and additions are in development and will be incorporated into future editions. However, it is important as we move forward with changes and improvements that we do not lose sight of the purpose of *Report Card 1998*, which is as valid today as it was when the project began.

Why Should We Measure the Performance of Schools?

Reason 1: improving performance

Remarkably, although it is responsible for the \$4 billion spent each year educating students from kindergarten to grade 12, the British Columbia

Ministry of Education makes no systematic effort to determine whether each school is effective in the discharge of its duties. Until the *Report Card 1998* was published, there was no easily accessible database allowing school administrators, parents, or other stakeholders to compare one school's performance with that of others—public or independent—in the school district or in the province as a whole. Nor was there a convenient means by which to compare a school's present and past performance.

What good will such measurement do? It will determine whether our schools are doing their job satisfactorily. School communities can then use these measurements as a baseline to develop an annual plan for improving the school where it is shown to be weak.

Reason 2: consumer awareness

Parents and students in many parts of the province have some ability to choose among education providers. They may choose among public schools in the neighbourhood, "magnet" schools (*i.e.*, schools, such as the Langley Fine Arts School, that have a specific focus), private schools, and home schooling. In order to make an informed choice, parents and students need indicators of school performance. As American President Clinton stated recently, "In too many communities, it's easier to get information on the quality of the local restaurants than on the quality of the local schools."¹ Until *Report Card 1998* was published, that was the case here in British Columbia as well.

How Can We Improve the Report Card?

We have received comments on *Report Card 1998* from a variety of sources. We have carefully con-

sidered them and, where appropriate, we have made improvements in this edition. Other comments have encouraged us to begin development of new indicators to be included in future editions. We thank all those who communicated with us for their valuable contribution to this work.

Criticism 1: the report card covers only academic results

One thread running through the critical comment was that a great deal of value produced by schools went unmeasured by *Report Card 1998*. Some argued that the report card should be expanded to include other aspects of school performance. We accept this criticism but, unfortunately, data on schools' performance in many of the suggested non-academic areas—sport and recreation, the fine arts, applied skills and career preparation, citizenship and leadership training—are not captured in a way that produces consistent, centrally available data. Indeed, the *Report Card 1998* was conceived, in part, in reaction to the paucity of systematic measures of school performance available to parents. We, as all parents, are to a great extent captives of the data made available by the Ministry of Education.

During 1999, we shall investigate the possibility of adding to our database school performance measures that are only available at the district and school level. It may be possible to collect such information using surveys of school administrators and parents.

Some correspondents felt that by focusing only on academic courses we had in some way invalidated the resulting comparison of schools' performance. We categorically reject this criticism. A primary function of the school is to enable its students to acquire the skills and knowledge embodied in the academic curriculum. The importance

1 President William Jefferson Clinton, *State of the Union Address*, United States Capitol, Washington, DC, January 19, 1999.

of measuring performance against this primary objective is in no way diminished by our temporary inability to measure other objectives.

Criticism 2: the report card only deals with Grade-12 university preparation subjects

We see value in the report card well beyond a simple rating of each school's grade-12 academic program. Students do not begin their senior studies from ground zero. They are methodically prepared for more advanced studies throughout their elementary and junior-secondary years. The quality of this preparation will obviously have an impact on results in their senior year. When we measure school performance in terms of results in senior-level courses to some extent we are assessing the effectiveness of the secondary school's feeder system in adequately preparing its students.

In next year's report card we will measure each school's success in developing its students over the secondary school years with more accuracy. We will incorporate into the report card newly available school-performance data derived from certain Grade-10 results. By doing so, we hope to provide a measure of the value added by the school over time.

What of the criticism that the ratings are based on university preparation courses and that they ignore achievement by students and underrate effectiveness of schools in a wide range of academic and applied courses not included in the production of the ratings? A review of the courses concerned should put this issue to rest. The courses that form the basis for four of the five performance indicators require the student to write a uniform provincial examination as a condition of successful completion. While it is true that results from these provincially examinable courses are used by many post-secondary institutions in the evaluation of applicants, it is not true

that they are of value only to students bound for university. Of the 19 such courses offered, seven are courses in a second language, three are English courses each designed with a different student objective in mind, two are similarly specific courses in Mathematics, three are basic science courses, one is an applied science course, and the remaining three are survey courses in the humanities. It is clear that the curriculum that includes these courses provides value to students regardless of their post-secondary ambitions.

Criticism 3: private school results should be segregated from those of the public schools

Is it right, fair, and productive to include public schools and independent schools in the same report? Would it not be better to have two leagues, one for the public schools, which, it is maintained, do not select their students in any way and another—a sort of Premier league—for the independent schools that are selective in their admission policies and therefore can create a student body of excellent, motivated, and supported students. Our answer to this suggestion is a simple “no.” Regardless of the method by which scarce seats are assigned to numerous applicants, independent schools are a choice that will be considered by many parents. This fact alone warrants their inclusion in the general ratings and rankings lists. More importantly, an awareness of the success (or failure) of alternative education delivery systems provides useful information for the effort to improve all schools, public and private. There is simply no good reason—given the purpose of the report card—to hide such potentially valuable data.

Criticism 4: results in Communications 12 should be excluded

Communications 12 is a provincially examinable course designed for students who need further work on the development of their communications skills. Since it is deemed not to be as

challenging as English 12 or Technical and Professional Communications 12, some of our correspondents felt that it should not be included in the four course-based indicators. They suggested that by encouraging more capable students to take Communications 12, schools could improve their rating. We would be surprised and dismayed if, simply in order to improve a school's ratings, counselling staff directed students into courses that were inappropriate to their education goals. All courses for which there is a provincial final examination require that students master a curriculum. Evidence that the school has enabled students to do this is evidence that the school is performing effectively. That is precisely what the report card is intended to measure. We have decided to continue our policy of including all the provincially examinable courses in the calculation of the indicators.

Criticism 5: school-based assessments should not be compared with examination marks

One indicator given in the report card compares the average mark achieved by students on the school-based assessments to the corresponding average examination mark. Inclusion of this indicator generated considerable controversy. It was suggested that since school marks in these subjects measure aspects of student learning that cannot be measured effectively on the final examination, there need not be any correlation between the average school mark and the average examination mark. If this were the case, we would expect a fairly normal distribution of the difference between the two assessments. Some schools would prepare the student for the examination better than others, while other schools would be more effective in teaching those components of the curriculum understanding of which was tested at the school level. Why then are average school marks consistently higher than average examination marks? In 1997/98, for instance, almost 78 percent of reported average school

marks were higher than the corresponding average examination marks. We intend to devote considerable effort to the question of the relationship between examination marks and school marks but this indicator will remain in the report card.

Criticism 6: schools cannot be compared without understanding the home situation of their students

It has been suggested that the report card should take into account the effect of certain socio-economic characteristics of the student body at each school. For example, when *The Province* newspaper published the results of our first report card, it reported the average income of those living in each school's postal code area. If children from different home backgrounds are often not equally well prepared or equipped to succeed in school, it may be that the school performance rating does not tell the whole story about school effectiveness. Advantaged students at one school may have an easy time learning, not because they have better teachers and counsellors, but simply because they have enough to eat and a supportive home environment.

We have considered the suggestion carefully and have decided to add an indicator of the socio-economic characteristics of students' families at each school. We believe that educators can and should take into account the abilities, interests, and backgrounds of their students when they design their lesson plans and deliver the curriculum. By doing so, they may be able to overcome any disadvantages that their students have. Such an indicator enables us to identify schools that are successful in spite of adverse conditions faced by their students at home. Similarly, it also identifies schools where students with a relatively more positive home situation appear not to be reaching their presumed potential. Thus, by comparing school performance to the characteristics of students' families we may be able to

develop another measure of the added value being delivered by the school.

Using enrollment data sorted by postal code provided by the Ministry of Education and census data provided by Statistics Canada, we established a profile of the student body's home characteristics for each of the schools. We then used multiple regression analysis to determine which, if any, of the home characteristics were associated with variations in average school performance on the average mark indicator. We identified one characteristic for which there was a strong association: if the average number of years of education obtained by the female parent or by the lone parent in a single-parent family was greater, the average mark was likely to be higher. We have decided to include this statistic, "Average Education of the Female/Lone Parent," for each school in *The 1999 Report Card on British Columbia's Secondary Schools*. It is the first step in the development of a new indicator of school performance. At present, this statistic is only available for the province's public schools.

A full explanation of the procedure by which the contextual measure is derived can be found in Appendix 2.

Criticism 7: statistically significant change over time should be indicated

It was suggested that, in addition to providing the raw data for a period of several years, it would be helpful to identify any important school-level changes over the study period. We think this is an excellent idea and have therefore included an indication of the direction of any statistically significant change in each school's performance on each of the indicators.

Where the indicator is positive, credit is due the school. Where the indicator is negative, the school activity measured by the indicator should be closely scrutinized to determine the cause of the decline, its importance, and any remedial action that may be undertaken to reverse the trend.

One important initial finding brought to our attention by this change indicator is that the number of improvements (265) and declines (84) in school performance is dwarfed by the number of instances (961) in which no statistically significant change has been made. It is our hope that by recognizing change, we will encourage improvement.

A Measure of Performance for Secondary Schools

The Keys to Success

Three essential ingredients for effective schools are a well-designed curriculum, practical, well-informed counselling, and effective teaching.

Curriculum

A well-designed curriculum will provide the students with a selection of courses that is relevant to their educational needs.

Counselling

Without advice and encouragement, few students are able to take full advantage of the learning opportunities provided by a school. While parents have a significant role to play, school counsellors also play an important part in encouraging and assisting students in making informed and reasoned decisions about education.

Teaching

It is the teacher's role to develop the learning plan, select resources, and present the material in a way that will enable each student to master the skills and assimilate the knowledge to be derived from a course.

The Available Data

Although British Columbia's Ministry of Education, Skills, and Training is timid about measuring school performance and publishing the results, each year it generates a substantial database that can provide clues about what is being

achieved in our schools. Ideally, a measure of school performance would assess the quality of all three components of a successful school. As a first step toward a comprehensive measure of school performance for the province's schools, we have combed the limited data that the Ministry collects for useful and relevant indicators of secondary school performance. Unfortunately, the statistics available from the Ministry allow us to assess only teaching and counselling and *The 1999 Report Card on British Columbia's Secondary Schools* attempts to measure only the extent to which each school offers effective teaching and practical, well-informed counselling.

The Five Indicators of School Performance

- (1) Average provincial examination mark
- (2) Percentage of provincial examinations failed
- (3) Difference between examination mark and school mark
- (4) Graduation rate
- (5) Provincial examinable courses taken per student

We have selected this set of indicators because they provide systematic insight into a school's performance. Only indicators that are generated annually were used so that we can assess not only each school's performance in a year but also its improvement or deterioration from year to year. We have looked only at indicators available to the public—to parents and taxpayers. These indicators are contained in publicly accessible databases maintained by the Ministry. Because these databases were not created by the Ministry of Education for the evaluation of the perform-

ance of schools, they are not entirely suited to the purpose and the indicators derived from them are far from perfect. Nevertheless, the databases include valuable information from which we have been able to extract five statistics for *The 1999 Report Card on British Columbia's Secondary Schools*. These indicators provide the best available picture of the performance of British Columbia's secondary schools.²

Selection of the Indicators

We have a limited selection of indicators of school performance available from the Ministry. To make the indicators as transparent as possible we have kept manipulation of the Ministry's data to the very minimum required. The process by which the five indicators are developed involves no significant editing of the Ministry's raw data. Thus, parents, administrators, teachers, or other interested parties can replicate our measures with a minimum of effort.

In the construction of the indicators (1) average provincial examination mark, (2) percentage of provincial examinations failed, and (3) difference

between examination mark and school mark, course-by-course outcomes are aggregated into an overall average that is weighted by the number of examinations written in the course divided by the total number of examinations written in the school. In the case of indicator (3), the difference between examination mark and school mark, the average mark in the examinations for each course and the relevant average school mark are compared and the absolute value of the difference is determined. It is this value that is weighted and summed over all courses.

The other two indicators, (4) graduation rate and (5) provincial examinable courses taken per student, are essentially unaltered Ministry data.

As noted above, it is our intention that subsequent editions of the *Report Card on British Columbia's Secondary Schools* will include more indicators from a greater variety of sources. We invite comment and suggestions from interested readers. Please contact us via mail to the Secondary Schools Report Card Project, Social Affairs Centre, The Fraser Institute, 4th floor, 1770 Burrard Street, Vancouver, BC, V6J 3G7, or via electronic mail to info@fraserinstitute.ca.

2 The data from which these indicators are derived is contained in publicly accessible databases maintained by the Ministry for two purposes. School-level statistics describing student enrollment, programs offered, and certain characteristics of the school district provide the basis for determining the annual per-student operating grant each district will receive. Analysis of this same material aids Ministry staff in the assessment and planning of proposed capital projects as well as general policy planning. This data is collected by the School Finance and Data Management Branch and much of it is available to the public on the Branch's web site (<http://www.bced.gov.bc.ca/k12datareports/standardreports/frames/>). The nature and extent of the data is indicated by the School Level Data Collection Manuals also available on site. Statistics on individual student performance are captured in order that the Ministry is able to produce a transcript of marks for each student upon graduation from grade 12. This transcript lists all the grade-11 and grade-12 courses that the student attempted and the result achieved. These results include the school mark for all such courses as well as the provincial examination mark for any provincially examinable grade-12 courses. This data is collected by the Evaluation and Accountability Branch and summary data files (at the school, district, and province levels) are available for public perusal on the Branch's web site (<http://www.bced.gov.bc.ca/exams/standrep.htm>). Values for the relevant statistics, for all public and independent secondary schools, for each of the six school years between September 1992 to August 1998 are provided by the Ministry.

Ranking British Columbia's Secondary Schools

Rank	District Name	School Name	1998 Overall Rating
1	Vancouver	Prince of Wales Secondary	10.0
1	North Vancouver	St. Thomas Aquinas	10.0
3	Vancouver	Little Flower Academy	9.8
3	North Vancouver	Argyle Secondary	9.8
3	Greater Victoria	St. Michaels University/Senior Campus	9.8
3	Cowichan Valley	Shawnigan Lake	9.8
7	Surrey	Pacific Academy	9.6
7	Vancouver	Magee Secondary	9.6
7	Vancouver	Point Grey Secondary	9.6
7	Vancouver	University Hill Secondary	9.6
7	Vancouver	St. George's School	9.6
7	Kamloops/Thompson	Kamloops Senior Secondary	9.6
13	Vancouver	Kitsilano Secondary	9.4
13	Vancouver	Crofton House	9.4
13	Greater Victoria	St. Margaret's	9.4
13	Cowichan Valley	Brentwood College	9.4
17	Vancouver	Eric Hamber Secondary	9.2
18	Abbotsford	W.J. Mouat Secondary	9.0
18	North Vancouver	Handsworth Secondary	9.0
18	West Vancouver	Collingwood School	9.0
18	Greater Victoria	Glenlyon-Norfolk Senior School	9.0
22	Southeast Kootenay	Sparwood Secondary	8.8
22	Surrey	Semiahmoo Secondary	8.8
24	Surrey	Elgin Park Secondary	8.6
24	Surrey	White Rock Christian Academy	8.6
24	Vancouver	David Thompson Secondary	8.6
24	Vancouver	York House School	8.6
24	Coquitlam	Centennial Senior Secondary	8.6
24	West Vancouver	Sentinel Elementary/Secondary	8.6
24	Sunshine Coast	Chatelech Secondary	8.6

PUBLIC POLICY SOURCES, NUMBER 22

Rank	District Name	School Name	1998 Overall Rating
24	Greater Victoria	Mount Douglas Senior Secondary	8.6
32	Kootenay Lake	L.V. Rogers Secondary	8.4
32	Central Okanagan	Kelowna Secondary	8.4
32	Richmond	Steveston Senior Secondary	8.4
32	Richmond	Hugh McRoberts Secondary	8.4
32	Vancouver	Sir Winston Churchill Secondary	8.4
32	Vancouver	Killarney Secondary	8.4
32	Vancouver	St. Patrick's Regional Secondary	8.4
32	Courtenay	Highland Secondary	8.4
32	Cowichan Valley	Maxwell International Baha'i School	8.4
41	Kootenay/Columbia	Rossland Secondary	8.2
41	Abbotsford	Abbotsford Christian School	8.2
41	Abbotsford	St. John Brebeuf Regional Secondary	8.2
41	Langley	Walnut Grove Secondary	8.2
41	Surrey	Earl Marriott Secondary	8.2
41	Surrey	Tamanawis Secondary School	8.2
41	Richmond	Charles E. London Secondary	8.2
41	Richmond	Cambie Secondary	8.2
41	Richmond	Richmond Christian School	8.2
41	Vancouver	Vancouver College	8.2
41	Burnaby	Burnaby North Secondary	8.2
41	Coquitlam	Riverside Secondary	8.2
41	North Vancouver	Seycove Community Secondary	8.2
41	Sunshine Coast	Elphinstone Secondary	8.2
41	Okanagan Similkameen	Similkameen Secondary	8.2
41	Okanagan Skaha	Summerland Secondary	8.2
41	Kamloops/Thompson	Kamloops Christian School	8.2
41	Cowichan Valley	Queen Margaret's	8.2
59	Central Okanagan	Mount Boucherie Secondary	8.0
59	Abbotsford	Yale Secondary School	8.0
59	New Westminster	New Westminster Secondary	8.0
59	West Vancouver	West Vancouver Secondary	8.0
59	Prince George	Duchess Park Secondary	8.0
59	Saanich	Stelly's Secondary	8.0

Rank	District Name	School Name	1998 Overall Rating
59	Nanaimo	Dover Bay Secondary	8.0
66	Rocky Mountain	David Thompson Secondary	7.8
66	Surrey	Fraser Valley Christian High	7.8
66	Surrey	Holy Cross Regional High	7.8
66	Burnaby	Burnaby Central Secondary	7.8
66	Burnaby	Cariboo Hill Secondary	7.8
66	North Vancouver	Carson Graham Secondary	7.8
66	Boundary	Grand Forks Secondary	7.8
66	Greater Victoria	Reynolds Secondary	7.8
66	Saanich	Claremont Secondary	7.8
66	Alberni	Ucluelet Secondary	7.8
66	Kamloops/Thompson	Brocklehurst Secondary	7.8
66	Fraser/Cascade	Agassiz Elementary/Secondary	7.8
78	Kootenay/Columbia	J. Lloyd Crowe Secondary	7.6
78	Langley	Credo Christian High School	7.6
78	Surrey	Johnston Heights Secondary	7.6
78	Vancouver	Lord Byng Secondary	7.6
78	Prince George	McBride Secondary	7.6
78	Greater Victoria	Lambrick Park Secondary	7.6
78	Okanagan Skaha	Penticton Secondary	7.6
85	Central Okanagan	K.L.O. Secondary School	7.4
85	Central Okanagan	Okanagan Adventist Academy	7.4
85	Langley	Brookswood Secondary	7.4
85	Surrey	Fleetwood Park Secondary	7.4
85	Delta	Delta Secondary	7.4
85	Richmond	Richmond Senior Secondary	7.4
85	Richmond	J.N. Burnett Secondary	7.4
85	Powell River	Max Cameron Senior Secondary	7.4
85	Okanagan Similkameen	Southern Okanagan Secondary	7.4
85	Bulkley Valley	Smithers Secondary	7.4
85	Greater Victoria	Oak Bay Secondary	7.4
85	Cowichan Valley	Frances Kelsey Secondary	7.4
97	Kootenay Lake	Mount Sentinel Elementary/Secondary	7.2
97	Vernon	Kalamalka Secondary	7.2

PUBLIC POLICY SOURCES, NUMBER 22

Rank	District Name	School Name	1998 Overall Rating
97	Delta	Seaquam Secondary School	7.2
97	Richmond	Hugh Boyd Secondary	7.2
97	Vancouver	King George Secondary	7.2
97	North Vancouver	Sutherland Secondary	7.2
97	Sunshine Coast	Pender Harbour Secondary	7.2
97	Greater Victoria	Pacific Christian School	7.2
97	Nanaimo	Wellington Secondary	7.2
97	Qualicum	Ballenas Secondary	7.2
97	Alberni	Alberni District Secondary	7.2
97	Courtenay	Georges P. Vanier Secondary	7.2
109	Kootenay/Columbia	Stanley Humphries Secondary	7.0
109	Cariboo/Chilcotin	Peter Skene Ogden Secondary	7.0
109	Abbotsford	Abbotsford Senior Secondary	7.0
109	Burnaby	Burnaby South Secondary	7.0
109	Campbell River	Carihi Secondary	7.0
109	Coast Mountains	Caledonia Senior Secondary	7.0
115	Arrow Lakes	Nakusp Secondary School	6.8
115	Arrow Lakes	Lucerne Elementary/Secondary	6.8
115	Abbotsford	Mennonite Educational Institute	6.8
115	Langley	Langley Fine Arts School	6.8
115	Maple Ridge	Maple Ridge Secondary	6.8
115	Maple Ridge	Garibaldi Secondary	6.8
115	Maple Ridge	Pitt Meadows Secondary	6.8
115	Coquitlam	Port Moody Senior Secondary	6.8
115	Campbell River	Timberline Secondary School	6.8
115	Fort Nelson	Fort Nelson Secondary	6.8
125	Vernon	Charles Bloom Secondary	6.6
125	Chilliwack	Timothy Christian School	6.6
125	Langley	Langley Secondary School	6.6
125	Langley	Aldergrove Secondary	6.6
125	Vancouver	Notre Dame Regional Secondary	6.6
125	North Vancouver	Windsor Secondary	6.6
125	Boundary	Boundary Central Secondary	6.6
125	Prince Rupert	Charles Hays Secondary	6.6

Rank	District Name	School Name	1998 Overall Rating
125	Greater Victoria	Victoria Secondary	6.6
125	Greater Victoria	Spectrum Community	6.6
125	Saanich	Parkland Secondary	6.6
125	Qualicum	Kwalikum Secondary	6.6
137	Southeast Kootenay	Mount Baker Secondary	6.4
137	Quesnel	Correliou Secondary	6.4
137	Surrey	Lord Tweedsmuir Secondary	6.4
137	Vancouver	Templeton Secondary	6.4
137	Vancouver	Windermere Secondary	6.4
137	Kamloops/Thompson	St. Ann's Academy	6.4
137	Vancouver Island North	Port Hardy Secondary	6.4
144	Rocky Mountain	Selkirk Secondary	6.2
144	Central Okanagan	George Elliot Secondary	6.2
144	Central Okanagan	Springvalley Secondary	6.2
144	Surrey	North Surrey Secondary	6.2
144	Vancouver	Vancouver Technical Secondary	6.2
144	Maple Ridge	Thomas Haney Secondary	6.2
144	Howe Sound	Whistler Secondary Community	6.2
144	Peace River South	Tumbler Ridge Secondary	6.2
144	Sooke	Belmont Secondary	6.2
144	Cowichan Valley	Duncan Christian School	6.2
154	Kootenay Lake	J.V. Humphries School	6.0
154	Surrey	Princess Margaret Secondary	6.0
154	Delta	North Delta Senior Secondary	6.0
154	Burnaby	St. Thomas More Collegiate	6.0
154	Howe Sound	Howe Sound Secondary	6.0
154	Prince George	Kelly Road Secondary	6.0
154	Nicola/Similkameen	Merritt Secondary	6.0
154	Peace River South	South Peace Secondary	6.0
154	Gulf Islands	Gulf Islands Secondary	6.0
154	Gold Trail	Lillooet Secondary	6.0
154	North Okanagan/Shuswap	Salmon Arm Senior Secondary	6.0
165	Vernon	W.L. Seaton Secondary	5.8
165	Vernon	Clarence Fulton Secondary	5.8

Rank	District Name	School Name	1998 Overall Rating
165	Surrey	Guildford Park Secondary	5.8
165	Delta	South Delta Secondary	5.8
165	Coquitlam	Terry Fox Senior Secondary	5.8
165	Prince George	Cedars Christian School	5.8
165	Kamloops/Thompson	Sa-Hali Secondary	5.8
172	Revelstoke	Revelstoke Secondary	5.6
172	Cariboo-Chilcotin	Columneetza Senior Secondary	5.6
172	Richmond	R.C. Palmer Secondary	5.6
172	Prince Rupert	Prince Rupert Secondary	5.6
172	Prince George	D.P. Todd Secondary	5.6
172	Prince George	College Heights Secondary	5.6
172	Cowichan Valley	Chemainus Secondary	5.6
172	North Okanagan/Shuswap	A.L. Fortune Secondary	5.6
172	North Okanagan/Shuswap	Eagle River Secondary	5.6
172	Nechako Lakes	Lakes District Secondary	5.6
182	Southeast Kootenay	Fernie Secondary	5.4
182	Vernon	Vernon Secondary	5.4
182	Chilliwack	Chilliwack Secondary	5.4
182	Langley	D.W. Poppy Secondary	5.4
182	Langley	Mountain Secondary	5.4
182	Surrey	Queen Elizabeth Senior Secondary	5.4
182	Vancouver	Britannia Secondary	5.4
182	Nanaimo	Ladysmith Secondary	5.4
182	Nanaimo	Woodlands Secondary	5.4
191	Southeast Kootenay	Elkford Secondary School	5.2
191	Quesnel	Quesnel Secondary School	5.2
191	Vancouver	Gladstone Secondary	5.2
191	Burnaby	Alpha Secondary	5.2
191	Central Coast	Sir Alexander Mackenzie Secondary	5.2
191	Prince George	Valemount Secondary	5.2
191	Nanaimo	Nanaimo District Secondary	5.2
191	Mission	Mission Secondary	5.2
191	Cowichan Valley	Cowichan Secondary	5.2
191	Vancouver Island West	Gold River Secondary	5.2

Rank	District Name	School Name	1998 Overall Rating
191	Vancouver Island North	North Island Secondary	5.2
202	Central Okanagan	Okanagan Mission Secondary	5.0
202	Central Okanagan	Kelowna Christian School	5.0
202	Abbotsford	Rick Hansen Secondary	5.0
202	Abbotsford	Robert Bateman Secondary	5.0
202	Greater Victoria	Esquimalt Secondary	5.0
202	Kamloops/Thompson	Logan Lake Elementary/Secondary	5.0
208	Central Okanagan	Rutland Secondary	4.8
208	Chilliwack	Sardis Secondary School	4.8
208	Surrey	Frank Hurt Secondary	4.8
208	Bulkley Valley	Bulkley Valley Christian School	4.8
208	Gold Trail	Kumsheen Secondary	4.8
208	Mission	Hatzic Secondary	4.8
208	Coast Mountains	Mount Elizabeth Secondary	4.8
215	Rocky Mountain	Golden Secondary School	4.6
215	Langley	Fraser Valley Adventist Academy	4.6
215	North Okanagan/Shuswap	Pleasant Valley Secondary	4.6
215	Nechako Lakes	Nechako Valley Secondary	4.6
215	Francophone Education Authority	L'école Victor Brodeur	4.6
220	Central Okanagan	Immaculata Regional High School	4.4
220	Bulkley Valley	Houston Secondary	4.4
220	Sooke	Edward Milne Community School	4.4
220	Kamloops/Thompson	Norkam Secondary	4.4
224	Langley	H.D. Stafford Secondary	4.2
224	Surrey	Relevant High School	4.2
224	Prince George	Prince George Secondary	4.2
227	Kootenay Lake	Prince Charles Secondary	4.0
227	Vancouver	John Oliver Secondary	4.0
227	Haida Gwaii/Queen Charlotte	Queen Charlotte Elementary/Secondary	4.0
227	Okanagan/Similkameen	Osoyoos Secondary School	4.0
227	Mission	Heritage Park Secondary	4.0
227	Fraser/Cascade	Hope Secondary	4.0
233	Kamloops/Thompson	Valleyview Secondary	3.8
233	Kamloops/Thompson	Barriere Secondary	3.8

Rank	District Name	School Name	1998 Overall Rating
235	Central Okanagan	George Pringle Secondary	3.6
235	Langley	Delphi Academy	3.6
235	Howe Sound	Pemberton Secondary	3.6
235	Greater Victoria	St. Andrew's Regional High School	3.6
235	Kamloops/Thompson	Westsyde Secondary	3.6
240	Richmond	Matthew McNair Senior Secondary	3.4
240	Vancouver	Sir Charles Tupper Secondary	3.4
240	Maple Ridge	Westview Secondary	3.4
240	Powell River	Brooks Secondary	3.4
240	Peace River South	Chetwynd Secondary	3.4
240	Peace River North	North Peace Secondary	3.4
246	Prince George	Mackenzie Secondary	3.2
246	Nicola/Similkameen	Princeton Secondary	3.2
246	Kamloops/Thompson	Clearwater Secondary	3.2
246	Cowichan Valley	Lake Cowichan Secondary	3.2
250	Kamloops/Thompson	Chase Secondary	3.0
250	Gold Trail	Ashcroft Secondary	3.0
250	Coast Mountains	Stewart Secondary	3.0
250	Vancouver Island North	Captain Meares Elementary/Secondary	3.0
250	Nechako Lakes	Fraser Lake Elementary/Secondary	3.0
255	Surrey	L.A. Matheson Secondary	2.8
255	Prince George	O'Grady Catholic High School	2.8
255	Coast Mountains	Hazelton Secondary	2.8
258	Nanaimo	John Barsby Secondary	2.6
259	Haida Gwaii/Queen Charlotte	George M. Dawson Secondary	2.2
260	Nechako Lakes	Fort St. James Secondary	1.8
260	Nisga'a	Nisga'a Elementary/Secondary	1.8
262	Kootenay Lake	Salmo Secondary	1.2

Reading the Tables

A full description and discussion of the method used in constructing *The 1999 Report Card on British Columbia's Secondary Schools* is provided in Appendix 1. Below is a brief explanation of the indicators and the overall rating.

The Teaching Indicators

Average provincial examination mark

Good teachers get the best out of each of their students. They can help all students—from the bottom of the class to the top—to reach their potential. In order to see how all the students of a particular school are doing, we can look at the average mark that students at that school receive on their provincial examinations.

These uniform provincial examinations are especially good for comparison purposes because, no matter what school the student attends anywhere in the province, the content of the examination is the same. Also, as most of these grade 12 courses require students to have successfully completed courses in the early grades, they not only indicate the teaching quality at the grade 12 level, but also that at the earlier grade levels.

Percentage of provincial examinations failed

A very important responsibility of teachers is to ensure that all their students are able to pass the course. For this indicator, we ignored the actual examination marks and simply determined two numbers—the number of provincial examinations written which received a failing grade; and, the total number of these examinations written. We divided the first sum (all failing examina-

tions) by the second sum (all examinations written) to get the percentage of all examinations that were judged a fail.

Difference between examination mark and school mark

An important part of good teaching is accurate feedback. A student whose level of achievement has remained consistent at, say, 75 percent throughout the year should reasonably be able to expect that—by investing roughly the same effort—she will receive roughly the same mark on the examination.

To assess the accuracy of feedback at each school, we compared the average examination mark (see above) with the average school mark—the total of all the results from tests, essays, quizzes, and so on given in class—for all the provincially examinable courses offered at the school. This indicator, the difference between exam mark and school mark, records the average size of the *absolute* difference between the two average marks for all the provincially examinable courses completed at the school.

The Counselling Indicators

Graduation rate

This indicator compares the number of “potential” graduates enrolled in the school on September 30 with the number of students who actually graduate by the end of the same school year. Only those enrollees who are capable of graduating with their class within the current school year are included in the count of potential graduates.

Provincial examinable courses taken per student

The provincial examinable courses are of value to every student, regardless of post-secondary plans. They develop or enhance skills that are useful in a wide range of future activities. These are also the courses most likely to be accepted as prerequisites to further training at colleges, technical institutes, and universities. A high rate of participation in provincially examinable courses indicates a school's success in helping students get the most out of high school while, at the same time, keeping their post-secondary options open.

The participation rate is the average number of provincial examinations written by each student in the school. First, the number of students who wrote a provincial examination in each of the courses is determined and the total for all the courses is calculated. This total is then divided by the grade 12 enrollment.

The overall school rating

While each of the indicators is important, it is very often the case that a particular school does better on some indicators than on others. So, just as a teacher must make a decision about a student's overall performance, we need an overall indicator of school performance. Just as teachers combine test scores, homework, and class participation to rate a student, we have combined all the indicators to produce an overall rating out of ten for each school.

We arrived at the overall rating as follows. For each school, we calculated a decile value for each indicator from the raw score. To do this, we compared each raw score to corresponding results in the base year (1992/93). The raw scores in the base year for each indicator were sorted from highest to lowest and then divided into 10 equal groups. The range of scores in the group that contained

the highest scores was assigned a decile value of 10; the next range of scores was assigned a decile value of 9, and so on until the lowest range of scores was assigned a decile value of one. For each indicator, we looked at the range into which the indicator value fell and assigned the appropriate decile value. Finally, to derive the overall rating, we averaged the five decile scores.

Parent's average education

For each school, the average number of years of education of female parents or lone parents in single-parent families is reported in the first line of each school's results table. Higher values of this statistic are associated with higher average marks and lower average fail rates. When schools with similar values for parent's average education record different results on either of these two indicators, it suggests that one school is more successful in taking the student's home life into account in the teaching and counselling practices that it employs. More information on the measure of parent's average education is contained in Appendix 2.

Grade 12 Enrollment

The size of the grade-12 class at the school is also indicated in the first line of each school's results table. It should be remembered that indicator results for schools with fewer students tend to be more variable than do those for larger schools. This is because the school's overall results can be affected by the results of a few individual students. The smaller the school, the more caution should be used in interpreting these results.

The Progress indicator

In the last column of each of the indicator rows, improvement, if any, in the school's performance for that indicator is shown. An upward pointing arrow (↑) indicates that the school's

pattern of improvement is statistically significant. In this context, the term “statistically significant” means that, nine times out of ten, the change reported is significantly different from zero.¹ A downward pointing arrow (↓) indicates that the school is very likely experiencing a statistically significant deterioration in performance as reflected by the indicator. A double arrow (↔) indicates that no significant change has occurred over the study period. Trends were calculated only in those circumstances where at least four years of data were available.

Important note on interpreting the Progress indicator

For three of the indicators—Average provincial examination mark, Graduation Rate, and Provincial examinable courses taken per student—an upward pointing arrow (↑) will accompany increasing values in the statistics. For example, increasing average mark values indicate improvement. For the other two indicators—Percentage of provincial examinations failed, and Difference between examination mark and school mark—an

upward pointing arrow will accompany decreasing values in the statistics. For example, a decreasing rate of failure also indicates improvement.

Other notes

(1) Where no values appear in a school year column, it indicates that the school either was not in operation during that year or that it did not meet the several criteria for inclusion (numbers enrolled, provincial examination results reported, and so on).

(2) In the interests of fairness and reliability, not all of the province’s secondary schools could be included in the survey. Excluded are schools at which the grade 12 enrollment is fewer than fifteen students; centres for adult education and continuing education; schools that cater solely or largely to non-resident foreign students; and certain alternative schools not offering a full program of courses. All other secondary schools are included.

1 We have used the 90 percent confidence level in this case in order to bring attention to developing trends.