

Endnotes for Results Analysis

Endnote A: Notes on Surveys

Public/Client Surveys

Alberta Learning regularly commissions telephone surveys of random samples of the Alberta public and key client groups. The purpose of these surveys is to obtain perceptions of how the learning system is performing in meeting learners' and society's needs and expectations. Professional survey research firms are contracted to conduct the surveys for Alberta Learning, using trained interviewers and the Computer-Assisted Telephone Interviewing (CATI) system. Survey results are compiled by the survey research firms and provided to Alberta Learning.

The following table provides sampling information about the surveys of Albertans conducted for Alberta Learning in recent years that are reported in this 2003/04 Annual Report. The information includes the respondent groups surveyed, corresponding sample sizes and the confidence intervals for results from each survey. Results are considered accurate within the confidence interval 19 times out of 20 (i.e., at a confidence level of 95%). Sampling variation can account for observed differences in results from year to year.

Alberta Learning Public/Client Surveys: Sample Sizes and Confidence Intervals

Survey		1999/00	2000/01	2001/02	2002/03	2003/04
Public (re ECS – 12 system) ¹	Sample	2,008	2,154	1,171	2,012	2,003
	Confidence interval	±2.2%	±2.2%	±2.9%	±2.2%	±2.2%
Public (re the adult learning system) ¹	Sample	3,000	3,001	1,171	3,109	3,000
	Confidence interval	±1.8%	±1.8%	±2.9%	±1.8%	±1.8%
- Adult Learners ²	Sample	992	998	420	1,103	1,000
	Confidence interval	±3.2%	±3.1%	±4.8%	±2.9%	±3.1%
- Adults not participating in learning ²	Sample	2,008	2,003	751	2,006	2,000
	Confidence interval	±2.2%	±2.2%	±3.6%	±2.2%	±2.2%
Graduates of Apprenticeship Programs ³	Sample	--	2,948	--	3,221	--
	Confidence interval	--	±1.8%	--	±1.7 %	--
Employers	Sample		--	2,003	--	2,000
	Confidence interval	N/A ⁴	--	±2.2%	--	±2.2%

Notes:

1. In 1999/2000 and subsequent years Alberta Learning commissioned a survey of the public that captured opinions on both the ECS – 12 and adult learning systems. The general public was over sampled in all years except 2001/02, increasing the number of respondents providing opinions to obtain the desired sample quotas of adult learners (1,000) and adults who had not taken any education or training (2,000). The sample size was smaller in 2001/02 because of the teachers' labour action.
2. Adult learners are a subset of the public. Adult learners are defined as adult Albertans who have participated in a credit or non-credit course in Alberta in the last 12 months prior to the survey. Adults not participating in learning are those adult Albertans who have not participated in a credit or non-credit course in the past 12 months. Measures of public satisfaction with the adult learning system in this report (pages 21, 34 and 36) are the weighted average satisfaction levels of adult learners and adults not participating in learning.
3. The confidence intervals for the apprenticeship graduate surveys are small compared to those for the survey of the public re the adult learning system as they are drawn from relatively small populations (i.e., the pool of apprenticeship graduates – just over 4,000 each year) while the public survey re the adult learning system is drawn from a large population (i.e., adult Albertans – more than 2 million people).
4. Although the employer survey was conducted in 1999/2000, the sample size and confidence interval are not applicable, as the question reported was added to the survey starting in 2001/02. In 2001/02, 797 of the 2,003 employers responding had hired recent graduates, and in 2003/04, 760 of the 2,000 employers responding had hired recent graduates.

The survey instruments for these surveys use four-point response scales (“Very satisfied/Satisfied/ Dissatisfied/Very dissatisfied” or “Strongly Agree/ Agree/ Disagree/ Strongly Disagree”), depending on the question. Although not asked, “Don’t Know” responses and refusals are recorded as well. Results presented are the combined percentages of respondents who were “very satisfied/satisfied” or who “strongly agreed/agreed”.

The public/adult learner survey is conducted every year. The surveys of employers and of apprenticeship graduates are conducted every other year. The survey results are available online at www.learning.gov.ab.ca/departement/satisfaction/EmployerSurveyReport.pdf. Apprenticeship graduates are surveyed between six and eighteen months after completing their program. For information on the results of the apprenticeship graduates survey, contact the Apprenticeship and Industry Training Division at 427-8768.

Alberta Learning Surveys of Partners and Stakeholders

Each year, Alberta Learning commissions telephone surveys of partners and stakeholders. For the purpose of these surveys, partners are representatives of other Alberta government ministries that have worked with Alberta Learning on specific projects during the last 12 months, and stakeholders are representatives of learning system organizations. Some of these organizations are specifically established by legislation, and all have as their mandate a broad and dedicated interest in the learning system.

These surveys use a judgment sampling (a type of non-probability sampling method, for which confidence intervals are not applicable) and are conducted with partner and stakeholder representatives to obtain perceptions about their working relationships with Alberta Learning staff. The partner and stakeholder surveys capture all major projects in which partners in other ministries worked with Alberta Learning staff and all major stakeholder organizations that have an on-going relationship with the Ministry. Respondents are selected with broad input from senior Ministry staff. Stakeholder selection identifies individuals in senior positions in their organizations who have a broad understanding of the learning system and are in the best position to provide meaningful responses. Samples include representatives of the largest post-secondary institutions and school jurisdictions in the province because of their impact on significant numbers of learners. The table below indicates the number of partner and stakeholder representatives surveyed each year.

Partner and Stakeholder Surveys: Sample Sizes

Year	Partners	Stakeholders	Total
1999/00	38	14	52
2000/01	33	28	61
2001/02	35	28	63
2002/03	43	29	72
2003/04	42	40	82

From 1999/2000 to 2001/02, the survey instrument used five-point response scales with a neutral midpoint (e.g., Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree). Starting in 2002/03, four-point scales with no neutral midpoint were used, to be consistent with other Ministry surveys (e.g., Strongly Agree, Agree, Disagree, Strongly Disagree). The change from a five-point scale with a neutral midpoint to a four-point scale may have affected the results for 2002/03 and 2003/04 slightly. Results shown are the percentages of all respondents who “strongly agreed/agreed” to the survey question (i.e., the weighted average).

The small samples for these surveys may contribute to variation in survey results from year to year. To illustrate the effect of sample size, each respondent in a survey sample of 100 accounts for one percent (1.0%) of the overall result, whereas each respondent in a survey of 1,000 respondents accounts for only one-tenth of one percent (0.1%) of the overall result.

Post-secondary Graduates Survey

Surveys are conducted every other year of graduates of publicly funded post-secondary institutions two years after graduation. For the 2003/04 survey, 15,622 interviews were conducted with 2001/02 graduates from 25 Alberta post-secondary institutions. For smaller institutions, a census survey method, which attempts to obtain responses from all graduating students, was used. The larger institutions used a sampling method which was designed to achieve a confidence level of 95%. Response rates by sector for the 2003/04 survey are presented in the table below.

Response Rates for the 2003/04 Graduate Outcomes Survey

Survey	Universities	Colleges	Technical Institutes	Private University Colleges	System Total
2001/02 Graduates	53%	56%	54%	70%	55%

Note: The targeted number of responses was set to achieve a 95% confidence level, by institution, with a $\pm 5\%$ confidence interval (or better). The targeted number of responses, by field of study, were set to achieve a 95% confidence level, with a $\pm 5\%$ confidence interval (or better), for each field of study across each of the following types of institutions: all universities combined, all university colleges combined, all colleges combined, all technical institutes combined.

The 2003/04 survey used a five-point scale (fully satisfied, somewhat satisfied, neutral, somewhat dissatisfied, and very dissatisfied categories). Satisfaction levels reported are the combined percentages of respondents who were “fully satisfied” or “somewhat satisfied.” “No Responses” were excluded. The survey instrument is from the Graduate Outcomes Survey, conducted between January and April of 2004 by an independent third-party contractor, on 2001/02 graduates of publicly funded post-secondary institutions. The question set used is in the *Key Performance Indicators Reporting Manual for Alberta’s Post-Secondary Institutions*, available online at www.aecd.gov.ab.ca/software/.

In 2003/04, only graduates of parchment programs (i.e., certificate, diploma and degree programs) were surveyed on the new combined satisfaction and employment survey, and the survey was administered two years after the graduation year (2001/02). Previous graduate satisfaction surveys (on 1998/99 and 2000/01 graduates) were exit surveys, conducted at the time of graduation, and included graduates of preparatory and basic upgrading programs as well as graduates of parchment programs. These were excluded as the new survey focuses on outcomes of graduates of post-secondary-level programs. Another significant difference was that the 2003/04 survey was coordinated by Alberta Learning to ensure consistent implementation of the survey among all participating post-secondary institutions, using a common survey method and timeframe. In previous graduate survey administrations, the colleges and technical institutes conducted their own surveys and reported the results to Alberta Learning through the Key Performance Indicator Reporting System (KPIRS), while the surveys of university graduates were centrally coordinated. The results of the previous surveys were reported in Alberta Learning’s Annual Report (see Alberta Learning’s 2002/03 Annual Report) a year after the survey was conducted,

while the results of the 2003/04 survey were available to Alberta Learning to report in the year in which it was conducted. As a consequence of these major changes in survey methodology, results of the 2003/04 survey are not comparable to results of previous surveys.

Use of Confidence Intervals for Results of Surveys in Alberta Learning's Annual Report

When a result is obtained by surveying a random sample of the target population (e.g., the public, adult learners, apprenticeship graduates, employees), there is a confidence interval associated with the result, which is expressed as a percentage above and below the obtained result. A confidence interval indicates how much variation one might expect from the obtained survey result, as a consequence of sampling and diversity among respondents. Difference in survey results over time or among respondent groups on the same survey question are reported at the “.05 level of confidence” (i.e., the same results would be obtained in repeated surveys 19 times out of 20). Alberta Learning uses confidence intervals to determine:

- whether differences in survey results over time are likely the result of sampling variations, or represent actual change; and
- whether differences among respondent groups to the same question are likely the result of sampling variations or represent actual differences.

When comparing results of survey questions over time or among respondent groups, there is an actual difference between two survey results, 19 times out of 20, if there is no overlap between the confidence intervals of the two observed values. When this is the case, it is acknowledged in the related text that there is an increase, change, or significant difference in survey results over time or among groups. When the confidence intervals of the two observed values do overlap, the observed difference will be due to sampling variation 19 times out of 20, and we cannot conclude that the difference is real (i.e., “significant”). In such cases, the related text indicates that results are similar or stable over time or among groups.

The following hypothetical examples illustrate:

- a) two survey results where the confidence intervals overlap and, consequently, it is concluded that there is no real difference between the two survey results, and
- b) two survey results where the confidence intervals do not overlap and, consequently, it is concluded that there is a real difference between the two survey results.
 - a) Where two survey results are 76% and 80%, both with a confidence interval of 2.5%, then the upper limit of the confidence interval for the “76%” result is 78.5%, and the lower limit of the confidence interval of the “80%” result is 77.5%. Since the confidence intervals “overlap”, it cannot be concluded that there is a real difference between the two survey results, as the observed difference could be due to sampling variation.
 - b) If the two survey results are 74% (with a confidence interval of 2.5%) and 80% (also with a confidence interval of 2.5%), the upper limit of the confidence interval for the “74%” result is 76.5%, and the lower

limit of the confidence interval of the “80%” result is 77.5%. Since the confidence intervals “do not overlap,” it can be concluded that there is a real difference between the two survey results, as sampling variation alone does not account for the observed difference. In such cases, the related text indicates that there is a significant difference over time (i.e., an increase or decrease) or between groups.

Endnote B: Technical Note on Assessing Results and Targets and on Use of Trend Lines

Assessing Results Over Time

Changes in results are assessed over time in the discussion of each measure. A change (increase or decrease) is considered slight if it differs 1-2 percentage points from results of the comparison year(s). As the confidence interval is taken into account in assessing results on survey measures that use a probability sampling method (see Endnote A), the change is considered slight for those measures when the result is 1-2 percentage points different from the comparison year(s) above or below the confidence interval.

Assessing Targets

Performance targets set expectations for results and are the basis for planning improvements and assessing results. They are an important way to gauge whether the organization is improving or falling behind in obtaining desired results in key areas. Targets clearly establish desired levels of performance to be attained by a certain time. Targets are quantifiable and expressed in numerical terms, such as percentages or ratios. They are used as a key tool to drive, measure, improve and control performance.

Performance on a measure is considered to have met the target if the result is at or above 95% of the target value. For example, if the result is 77% on a measure with a target of 80%, then the target has been met since the performance (77%) represents 96.3% of the target. As another example, if the result on the same measure is 75%, then the target has not been met since 75% represents only 93.8% of the target.

This method of assessing performance represents a high level of achievement in relation to the target, i.e., clearing a hurdle. The 95% rule acknowledges the variability in data as well as the complexities of the learning system. In such an environment, targets are general objectives rather than specific values, and achieving 95% of the target value indicates results are “in the ball park.”

The 95% rule is not used to assess achievement of targets for provincial achievement tests, which are administered to students in Grades 3, 6 and 9. It does not apply to the results for students who wrote as that set of results represents the achievement of the students who took the test and there is negligible variability. The rule also does not apply to the results for all students in grade as those results are the minimum possible and under-represent the true results for the population had all students in the grade taken the test. Instead, as a difference of four-tenths of a percentage point (0.4%) is considered significant for these results, targets are considered met if the result is within four-tenths of a percentage point (0.4%) of the target.

Trend Lines

Trend lines are an aid to interpreting the results for measures reported in the Annual Report. Trend lines augment data interpretation techniques already in use such as the calculation of confidence intervals, which is used to determine the significance of a change between two survey results (either over time, or among groups). Trend lines provide a useful method of understanding the year-to-year fluctuations over the longer term, since most measures have data spanning three or more years. Trend lines shift the focus from smaller year-to-year changes

to providing information about the longer-term direction of the data and whether or not it is tracking towards the performance target for the measures with targets.

Comments in the text on results with at least three data points are supported by trend lines. The type of trend line used is selected based on an informed interpretation of the data series underlying the trend line.

Logarithmic trend lines are appropriate for proportional data (i.e., data expressed as percentages of a whole, and therefore ranging between 0% and 100%), such as the performance measures in this report. A logarithmic trend line is a best-fit straight line that is most useful when the rate of change in the data increases or decreases quickly, then levels out. The leveling out can be seen in the results for some measures in the report, along with examples of year-to-year increases or decreases on other measures.

A logarithmic trend line is calculated using the following formula:

$$Y = c \ln x + b \text{ where } c \text{ and } b \text{ are constants, and } n \text{ is the natural logarithm function.}$$

Endnote C: Methodology for Performance Measures

Provincial Achievement Tests

Students in Grades 3, 6 and 9 write provincial achievement tests annually in language arts and mathematics while Grade 6 and 9 students also write tests in science and social studies. The achievement test results for Grades 3, 6 and 9 provide information on how well students are meeting provincial standards in the core academic subjects. Tests are developed and administered by educators and are based on expectations in the provincial curriculum. Results are reported in relation to the acceptable standard and the standard of excellence. A student achieving the acceptable standard in a specific grade shows an adequate understanding of the core knowledge and adequate basic skills essential to that course. A student achieving the standard of excellence consistently shows a deeper understanding of the concepts of the course – an ability to integrate information and evaluate it from various points of view. For each achievement test, the cut scores for the acceptable standard and the standard of excellence are set initially by a standard-setting committee of about 20 teachers using the Modified Angoff Standard Setting Procedure. This procedure uses teachers' judgment to determine how many items a student must answer correctly to achieve each standard. In subsequent years, the cut scores for each test are adjusted through test equating. This ensures that the standards remain constant even if test difficulty varies slightly from year to year. Whenever curriculum is revised, the standard-setting process is done again.

Given the large number of students in each grade, approximately 40,000, differences in results from year to year of more than 0.4 percentage points on each test are considered significant. Results on provincial achievement tests are calculated and presented in two ways:

- on the basis of student writing the achievement tests in Grades 3, 6 and 9 who achieved the standards; and
- on the basis of total enrolment in each grade who demonstrated the standards.

Not all students write the provincial achievement tests. Achievement test results are not available for students who were absent, who were excused from writing by the superintendent (because participation would be harmful to the student, or the student could not respond to the test instrument), who wrote but whose results were withheld, or who wrote only one part of a language arts test. It is possible that some of these students, under different circumstances, could have demonstrated achievement of standards on the test. Participation rates are calculated by dividing the number of students who wrote the test by the sum of total enrolment in grade plus the ungraded students who are in the corresponding year of schooling.

Provincial combined results present the unweighted averages based on percentages achieving standards as the populations are relatively stable from year to year and grade to grade. Test results and participation are recorded and aggregated in Ministry systems. Provincial, school authority and school results (*Achievement Test Multi-Year Reports 2000-2004*), are available on Alberta Learning's website at:

www.learning.gov.ab.ca/k_12/testing/default.asp.

Diploma Examinations

Examinations are administered in all diploma examination courses in January, June and August each year. Examinations are administered in three courses in both November and April, for a total of six courses. Results on diploma examinations show how well students are meeting provincial expectations as outlined in the Programs of Study. Examination items are developed and cut scores established by committees of teachers. The examination design is vetted through committees of stakeholders, and by a standard-setting committee of teachers.

In order to maintain consistent examination standards over time, a test equating initiative is being phased in for the Diploma Examination Program. Starting in the 2003/04 school year with Social Studies 30 and 33, the multiple-choice portion of the examinations contains a set of items common to administrations in subsequent years. By comparing the achievement of students writing in January 2004 with those writing in any subsequent administration on the common items, Alberta Learning is able to determine whether or not the examinations were of equal difficulty. Student scores on the subsequent examinations can then be equated back to the January 2004 baseline examinations to remove any influence that differences in examination difficulty may have on student scores. Through equating, all students, regardless of which examination they have written, receive multiple-choice test scores that are based on an identical standard and, consequently, the test results can be directly compared over time.

Diploma examination results are reported in relation to the acceptable standard and the standard of excellence. A student achieving the acceptable standard demonstrates that s/he has met the basic requirements of the course. A mark of 50 per cent on the examination represents the acceptable standard in a diploma examination course. A mark of 80 per cent on the examination represents the standard of excellence and indicates that the student has demonstrated performance significantly beyond the minimum requirements of the course.

For student marks in diploma examination courses, the diploma examination mark is worth 50 per cent of the final mark in a course and the school-awarded mark contributes the other 50 per cent.

The table “Percentages of Grade 12 Students Completing Diploma Examination Courses in their Third Year of High School” reports the percentage of Grade 12 students who received a final mark in each diploma examination course for the last five years. This information is an indicator of participation, as the course enrolment is representative of the group of students who typically take the course. The proportion of Grade 12 students completing diploma examination courses varies from year to year and from school to school depending on course enrolments and student success in achieving course requirements.

Diploma examination results and participation in diploma examination courses are recorded and aggregated in Ministry systems. The provincial reports (*The Diploma Examination Multiyear Reports 2000-2004*) are available online at: www.learning.gov.ab.ca/k_12/testing/multi-public/dip/. These multi-year reports contain five years’ of data extracted each year from live systems, which are updated regularly. As a result of the updating on line, the prior years’ results in the multi-year reports may differ from prior years’ results in the Annual Report.

High School Completion Rate

The high school completion rate reports the percentages of Alberta students who, within three, four, and five years of entering Grade 10:

- received a high school diploma, equivalency diploma (GED) or Integrated Occupational Program (IOP) certificate; or
- entered an Alberta post-secondary institution or an apprenticeship program; or
- earned credits in five Grade 12 courses, including one language arts diploma examination course and three other diploma examination courses.

The tracking of Grade 10 students excludes some groups of students, such as a few categories of severe special needs and students whose education is not the responsibility of the provincial government. Data for this measure

are from Alberta Learning systems, adjusted for attrition using estimates from Statistics Canada's *Annual Demographic Statistics, 2003* (CD-ROM). A detailed description of the methodology and high school completion rates for Alberta school jurisdictions are available online at www.learning.gov.ab.ca/k_12/completion/.

Apprenticeship Completion Rate

The methodology used for arriving at the apprenticeship completion rate is based on tracking apprentices who have successfully completed all the work experience and formal training requirements for their first period of apprenticeship or who have received credit for prior learning or work experience for that year. These apprentices are tracked from the beginning of their second year, when significant public funds begin to be expended on their formal instruction, and are tracked for two years beyond the expected length of their trade program to determine completion. Only trade programs of at least two years in length are included since tracking begins in an apprentice's second year. Most trade programs are four years in length.

The *Apprenticeship and Industry Training Act* stipulates that no one can be employed in certain occupations without either being a journeyman or an apprentice. Since apprenticeship registration is often a condition of employment, individuals may register as apprentices even though they may not intend to complete their program. Tracking apprentices starts in their second year, which reduces the cohort in recognition of those who register as a condition of employment but do not intend to complete. Other factors may affect program completion times, such as apprentices being laid off work, choosing to delay their technical training at the request of employers or for personal reasons. Given these employment conditions and factors affecting completion, two additional years is considered to be a reasonable length of time for apprentices to complete their programs. For example, the majority of apprentices in four-year programs would be expected to complete their programs within six years.

Data are from the Skilled Trades Information System (STIS) maintained by the Apprenticeship and Industry Training Division of Alberta Learning.

Interim Post-secondary Completion Rate

The interim post-secondary completion rate is based on tracking first-year, full-time career and undergraduate students in parchment programs (i.e., certificate, diploma and bachelor degree programs) at public post-secondary institutions. Students are tracked for the program length (typically one year for certificate, two years for diploma and four years for degree programs) plus three years in the institution where they entered as a first-time, full-time student. Three additional years are provided to account for a variety of circumstances, such as change in program, discontinuous enrolment, cooperative programs (alternate periods of work and study) and reduced course loads. Data for these calculations are extracted from the Learner Enrolment Registration system when data for the previous academic year are complete. Students in graduate programs, university transfer programs and applied degree programs are excluded.

Interim post-secondary completion rates for institutions have been aggregated into two categories: university completion which tracks students in four-year undergraduate degree programs and college/technical institution completion which tracks students in certificate and diploma programs (usually up to two years of study). The university category includes Alberta College of Art & Design's programs, all of which are four-year undergraduate degree programs. Athabasca University is not included in the completion rate due to the lack of

comparability between a distance-delivery institution and traditional campus-based universities. Also excluded from this interim completion rate are the private university colleges, as there is not yet sufficient information to generate a completion rate for these institutions.

This interim completion rate methodology is unable to track students who start at one institution but transfer to another institution. As a result, transfer students (both those who complete and those who do not) are counted as non-completers. Alberta Learning is currently implementing an Alberta Student Number (ASN) for post-secondary students that would allow for a more accurate calculation of completion rates within the post-secondary system, including tracking of transfer students.

Educational Attainment

The Labour Force Survey is a monthly Canada-wide survey of a representative sample of households. Data are collected about all members of the household who are 15 years of age or older. The high school and post-secondary completion rates for 25-34 year-olds are presented as they represent recent outputs of Alberta's learning system.

The Canadian sample size for the monthly Labour Force Survey has been approximately 54,000 households over the reporting period. Alberta's sample size corresponds to its share of the population. In 2003, between 5,375 and 5,507 Alberta households were surveyed each month (an average of 5,425 per month), with information provided on between 10,493 and 10,807 individuals per month (an average of 10,634 per month). Excluded from the Labour Force Survey are persons living on Indian reserves, inmates of prisons, and members of the military. As these groups (which represent about 2% of the population age 15+) typically have lower education levels than the total population, educational attainment rates based on Labour Force Survey data may be slightly higher than the rate would be for the total population age 15+.

The educational attainment rates presented are annual aggregates for the calendar year. The coefficient of variation, or CV, (the standard error as a percentage of the reported result) for the Labour Force Survey is 1.0% for both the Alberta and the Canadian data. Additional information on the Labour Force Survey methodology and interpreting CVs is available on pages 16-23 of *Guide to the Labour Force Survey*, Catalogue no. 71-543-GIE (Revised, February 2004), available on-line from Statistics Canada: www.statcan.ca.

Participation in Early Childhood Services (ECS) Programs

The participation rate in ECS programs is the percentage of all Alberta Grade 1 students in the current school year who had an Alberta ECS registration in any prior school year. The calculation is adjusted to account for Grade 1 students who entered Alberta from another province or country in the previous year, and thus would not have attended ECS in Alberta. In-migration data include the estimated number of immigrants and of interprovincial in-migrants aged five as of July 1st of the calendar year. The Grade 1 and ECS registration data are from the Corporate Data Warehouse maintained by Information Services, Alberta Learning and extracted in April each year. The in-migration data are from Statistics Canada, *Annual Demographic Statistics, 2003* (CD-ROM).

High School to Post-secondary Transition Rate

The High School to Post-secondary Transition Rate reports the percentages of Alberta students who, within four and six years of starting Grade 10:

- attended a credit program, part-time or full-time, in an Alberta post-secondary institution; or
- registered in an apprenticeship program other than the Registered Apprenticeship Program, which is a program for high school students.

The High School to Post-secondary Transition Rate includes adjustments for attrition and for attending post-secondary institutions out of province, based on estimates.

Students whose education is not the responsibility of the provincial government, as well as students who are identified as having cognitive disabilities or a severe multiple disability are not included in the High School to Post-secondary Transition Rate.

The sources of student data are Alberta Learning's Student Information System (SIS), Student Records System (SRS), Skilled Trades Information System (STIS), and the Alberta Council on Admissions and Transfer's Duplicate Application Detection System (DAD). The estimate of attrition uses data from Statistics Canada, *Annual Demographic Statistics*. The estimate of Alberta students attending post secondary institutions out-of-province uses aggregate student counts from Alberta Learning's Learner Enrolment Reporting System (LERS) and Students Finance System (SFS).

Employment Rates of Albertans 25-34 by Educational Attainment

Statistics Canada's Labour Force Survey is a monthly Canada-wide survey of a representative sample of households. Data are collected about all members of the household who are 15 years of age or older. Excluded from the Labour Force Survey are persons living on Indian reserves and inmates of prisons. As these groups, which represent less than 2% of the population age 15+, typically have lower employment levels than the total population, employment rates for 25-34 year-olds based on Labour Force Survey data may be slightly higher than the rate would be for the total population of Albertans aged 25-34.

The employment rates for 25-34 year-olds are presented as they represent recent outputs of Alberta's learning system. The employment rates are annual aggregates for the calendar year. The Canadian sample size for the monthly Labour Force Survey has been approximately 54,000 households over the reporting period. Alberta's sample size corresponds to its share of the population. In 2003, between 5,375 and 5,507 Alberta households were surveyed each month (an average of 5,425 per month), with information provided on between 10,493 and 10,807 individuals per month. Of these, about 1,550 – 1,600 individuals each month are age 25-34, or about 19,000 on an annual basis. The coefficient of variation (the standard error as a percentage of the reported result) is 1.0%. Additional information on the Labour Force Survey Methodology and interpreting CV's is available on pages 16-23 of the *Guide to Labour Force Survey*. Catalogue no. 71-543-GIE (Revised, February 2004), available online from Statistics Canada: www.statcan.ca.