

2011 Facts and Figures pamphlet Background and Methodology Information

INVESTMENT IN RESEARCH AND INNOVATION	2
RESEARCH REVENUE ATTRACTED BY ALBERTA INSTITUTIONS.....	2
GRADUATE STUDENTS.....	3
INTERNATIONAL VISA GRADUATE STUDENTS.....	3
GOVERNMENT OF ALBERTA EXPENDITURES ON SCIENTIFIC ACTIVITIES.....	3
ALBERTA BUSINESS EXPENDITURES ON RESEARCH AND DEVELOPMENT.....	4
TECHNOLOGY COMMERCIALIZATION	4
CANADIAN VENTURE CAPITAL INVESTED IN ALBERTA.....	4
KNOWLEDGE-INTENSIVE COMPANIES IN ALBERTA.....	4
ALBERTANS EMPLOYED IN KNOWLEDGE-INTENSIVE COMPANIES.....	5
AFFORDABILITY OF THE LEARNING SYSTEM	5
AVERAGE UNDERGRADUATE TUITION FEES FOR FULL-TIME CANADIAN LEARNERS.....	5
AVERAGE EDUCATION-RELATED DEBT REPORTED BY GRADUATES.....	6
FULL-TIME LEARNERS RECEIVING FINANCIAL ASSISTANCE.....	6
SCHOLARSHIP RECIPIENTS.....	6
SCHOLARSHIP DOLLARS PER FULL-TIME LEARNER.....	6
RATIO OF TOTAL DEBT AT GRADUATION TO INCOME TWO YEARS AFTER GRADUATION.....	6
GRADUATES WHO AGREE THEIR PROGRAM WAS WORTH THE FINANCIAL COST.....	7
ACCESS AND PARTICIPATION IN LEARNING OPPORTUNITIES	7
TOTAL LEARNERS IN PUBLICLY FUNDED POST-SECONDARY PROGRAMS.....	7
ABORIGINAL LEARNERS IN PUBLICLY FUNDED POST-SECONDARY PROGRAMS.....	7
APPRENTICESHIP REGISTRATIONS.....	7
ABORIGINAL LEARNERS PARTICIPATING IN APPRENTICESHIP.....	7
INTERNATIONAL VISA LEARNERS STUDYING IN ALBERTA.....	8
HIGH SCHOOL TO POST-SECONDARY TRANSITION RATE OF LEARNERS WITHIN 10 YEARS OF ENTERING GRADE 10.....	8
PERCENTAGE OF ALBERTANS 18-34 PARTICIPATING IN POST-SECONDARY EDUCATION.....	8
PERCENTAGE OF TRANSFERS WHERE POST-SECONDARY GRADUATES WITH PRIOR LEARNING RECEIVED THE TRANSFER CREDIT THEY EXPECTED.....	8
LEARNER MOBILITY RATE BETWEEN PUBLIC POST-SECONDARY INSTITUTIONS IN ALBERTA.....	9
PUBLIC SATISFACTION THAT ALBERTANS CAN ACCESS EDUCATION OR TRAINING.....	9
ADULT ENGLISH AS A SECOND LANGUAGE PROGRAM PARTICIPANTS.....	9
ADULT LITERACY PROGRAM PARTICIPANTS.....	9
FAMILY LITERACY PROGRAM PARTICIPANTS.....	10
QUALITY AND LEARNING OUTCOMES	10
PARCHMENTS AWARDED BY PUBLICLY FUNDED POST-SECONDARY INSTITUTIONS IN ALBERTA.....	10
PERCENTAGE OF ALBERTANS 25-64 WHO COMPLETED A POST-SECONDARY CREDENTIAL.....	10
PERCENTAGE OF LEARNERS WHO COMPLETED THEIR POST-SECONDARY PROGRAMS WITHIN THE CREDENTIAL LENGTH PLUS 3 YEARS.....	10
PERCENTAGE OF FIRST PERIOD APPRENTICESHIP COMPLETERS WHO WERE CERTIFIED IN THEIR TRADE WITHIN TWO YEARS OF THE PROGRAM LENGTH.....	11
GRADUATES' SATISFACTION WITH THE OVERALL QUALITY OF THEIR EDUCATIONAL EXPERIENCE.....	11
APPRENTICESHIP GRADUATES' SATISFACTION WITH ON-THE-JOB TRAINING AND TECHNICAL TRAINING.....	11
EMPLOYMENT RATE OF ALBERTANS AGED 25-34 BY HIGHEST LEVEL OF EDUCATION.....	11
MEDIAN ANNUAL SALARY OF GRADUATES.....	12
DATABASES	12
FINANCIAL INFORMATION REPORTING SYSTEM (FIRS).....	12
LEARNER ENROLMENT REPORTING SYSTEM (LERS).....	12
APPRENTICESHIP, TRADE AND OCCUPATION MANAGEMENT SYSTEM (ATOMS).....	12
STUDENTS FINANCE SYSTEM (SFS).....	12
SURVEYS	12
LABOUR FORCE SURVEY.....	12
POST-SECONDARY GRADUATE OUTCOMES SURVEY.....	13
SURVEY OF GRADUATES OF THE APPRENTICESHIP AND INDUSTRY TRAINING SYSTEM.....	13
PUBLIC SATISFACTION SURVEY.....	14
“DID YOU KNOW” DATA SOURCES	14

INVESTMENT IN RESEARCH AND INNOVATION

Research Revenue Attracted by Alberta Institutions

Universities

Research revenue attracted by universities gives an indication of the research capability, capacity, and competitiveness of Alberta's comprehensive academic and research institutions.

Sponsored research revenues are those received outside of the university base operating grants and include both research grants and research contracts. Funding sources include the provincial government, industry and non-profit organizations, and the federal government.

Alberta's post-secondary system is composed of six sectors. In this model, universities with strength in research are identified as Comprehensive Academic and Research Institutions, and include the following institutions:

- University of Alberta
- University of Calgary
- University of Lethbridge
- Athabasca University

These institutions submit data based on audited financial statements and supplementary schedules to the ministry of Advanced Education and Technology using a template and guidelines that ensure data are comparable across institutions. Since data take substantial time to compile and confirm, data for 2009-10 are reported in 2010-11.

Technical Institutes and Colleges

Total sponsored applied research revenue attracted by Alberta technical institutes and colleges indicates the research capacity and capability of these institutions. Applied research revenues are those received outside of an institution's base operating grant and include both research grants and contracts.

Alberta's post-secondary system is composed of six sectors. In this model, technical institutes and colleges are divided into four sectors, and include the following institutions:

1. Baccalaureate and Applied Studies Institutions
 - Grant MacEwan University
 - Mount Royal University
2. Polytechnical Institutions
 - Northern Alberta Institute of Technology
 - Southern Alberta Institute of Technology
3. Comprehensive Community Institutions
 - Bow Valley College
 - Grande Prairie Regional College
 - Keyano College
 - Lakeland College
 - Lethbridge College
 - Medicine Hat College
 - NorQuest College
 - Northern Lakes College
 - Olds College
 - Portage College
 - Red Deer College
4. Specialized Arts and Culture Institutions
 - Alberta College of Art & Design
 - The Banff Centre

2011 Facts and Figures pamphlet Background and Methodology Information

These institutions submit data based on audited financial statements and supplementary schedules to the ministry of Advanced Education and Technology using a template and guidelines that ensure data are comparable across institutions. Since data take substantial time to compile and confirm, data for 2009-10 are reported in 2010-11.

Graduate Students

Graduate student research contributes to Alberta's research and innovation capacity, and ultimately to its skilled workforce and diversification of the province's economy.

Graduate level programs include masters or doctoral degree programs, post-degree certificate or diploma programs containing courses that are equivalent to those offered in masters or doctoral programs, or medical residencies. Part-time and full-time learners are not differentiated.

Graduate level programs in the priority areas of life sciences, energy, nanotechnology, and information and communication technologies (ICT) include the following:

- Biology
- Agriculture
- Computer and Information Science
- Engineering
- Health Research
- Mathematics
- Natural Resources and Conservation
- Physical Sciences
- Multi/Interdisciplinary Studies
- Science Technologies/Technicians

This selection of programs was made by a ministry working group of experts in the classification of programs.

Data come from Advanced Education and Technology's Learner Enrolment Reporting System (LERS) (For more information on LERS, see the Databases section below.)

International Visa Graduate Students

International graduate student participation is an indicator of the quality and global reputation of Alberta's advanced learning system.

This indicator presents an unduplicated headcount of international graduate students studying in Alberta. Graduate level programs include masters or doctoral degree programs, post-degree certificate or diploma programs containing courses that are equivalent to those offered in masters or doctoral programs, or medical residencies. Part-time and full-time learners are not differentiated.

Data from Athabasca University are not included in this measure because all programs are non-resident, online programs.

Data come from Advanced Education and Technology's Learner Enrolment Reporting System (LERS). Enrolments for the Banff Centre are not reported through LERS, and so are not reflected in this indicator. (For more information on LERS, see the Databases section below.)

Government of Alberta Expenditures on Scientific Activities

This indicator shows the Government of Alberta's financial support for scientific activities that contribute to Albertan's social, economic, and environmental well-being. "Scientific activities" includes both research and development (R&D) and activities closely related to R&D, or "related scientific activities" (RSA).

Statistics Canada, under contract with the Ministry of Advanced Education and Technology, collects data annually from Government of Alberta departments and related entities using internationally accepted guidelines and definitions. These definitions are documented in the Organization for Economic Co-operation and Development's

2011 Facts and Figures pamphlet Background and Methodology Information

Frascati manual. The most recent survey results have been captured in the AET report: *Scientific Activities of the Government of Alberta 2009-10 and 2010-11 Preliminary Survey Results*, May 2011. For more details visit <http://www.advancededandtech.gov.ab.ca/research/reports/sasurveys.aspx>.

Alberta Business Expenditures on Research and Development

This indicator identifies expenditures devoted annually to research and development (R&D) from all business sectors of Alberta's economy. It describes the business climate for industrial research, which has the potential to produce innovative products and processes that can yield significant economic and social benefits for the province.

Alberta Advanced Education and Technology obtains this publicly available data from the "[Domestic spending on research and development \(GERD\), funding sector, by province \(Alberta\)](#)" CANSIM table showing results from Statistics Canada's annual survey of all Canadian industries known to be performing or funding more than \$1.5 million in research and development. The survey is mailed to respondents in September each year.

While national level data is finalized within one year of the survey, data at the provincial/regional level is finalized two years after the survey is conducted.

Additional information on this survey can be found at <http://www.statcan.ca/cgi-bin/imdb/p2SV.pl?Function=getSurvey&SDDS=4201&lang=en&db=IMDB&dbg=f&adm=8&dis=2>.

TECHNOLOGY COMMERCIALIZATION

Canadian Venture Capital Invested in Alberta

Venture capital (VC) is one indicator of the province's capacity to support an innovative and globally competitive economy.

Data on Canadian venture capital comes from VCReporterTM, a service provided by Thompson Financial, available at www.canadavc.com. Data is pulled from VCReporterTM using the following parameters:

- Included:
 - Quarters 1, 2, 3 and 4 of year being reported on
 - New funding and follow-on funding
 - Life sciences, information and communications, and other technology (energy and environmental)
 - Early stage deals (seed and start-up) and expansion stage deals
 - All size deals (i.e. less than \$500,000 through greater than \$5 million)
- Excluded:
 - Traditional industries (i.e. retail and manufacturing)
 - Later stage deals (mezzanine, turnaround, etc.)

VCReporterTM is a dynamic database, allowing stored data to be continually supplemented as more information becomes available: data from earlier periods can be added later, providing more accurate depictions of those periods.

Knowledge-Intensive Companies in Alberta

The number and proportion of knowledge-intensive companies in Alberta is one indicator of the scope of the province's knowledge-intensive sector. Knowledge-intensive companies develop products or services from advanced technological research or base their activities on the application of advanced knowledge.

Data on knowledge-intensive companies comes from Statistics Canada's *Canadian Business Patterns*, and knowledge-intensive sectors are defined using the North American Industry Classification System (NAICS) codes:

- 3254 - Pharmaceutical and Medicine Manufacturing
- 334 - Computer and Electronic Manufacturing
- 3353 - Electrical Equipment Manufacturing
- 3359 - Other Electrical Equipment and Component Manufacturing
- 3364 - Aerospace Product and Parts Manufacturing

2011 Facts and Figures pamphlet Background and Methodology Information

- 5112 - Software Publishers
- 5152 - Pay and Specialty Television
- 516 - Internet Publishing and Broadcasting
- 517 - Telecommunications
- 5182 - Data Processing, Hosting, and Related Services
- 5191 - Other Information Services
- 5413 - Architectural, Engineering and Related Services
- 5415 - Computer Systems Design and Related Services
- 5416 - Management, Scientific and Technical Consulting Services
- 5417 - Scientific Research and Development Services
- 6215 - Medical and Diagnostic Laboratories
- 8112 - Electronic and Precision Equipment Repair & Maintenance

Only active companies are used in the analysis. Businesses are assigned an inactive status when neither a GST or payroll remittance has been made for 12 consecutive months (24 months for GST quarterly and annual remitters).

For more information on Statistics Canada's *Canadian Business Patterns*, visit <http://www.statcan.gc.ca/ads-annonces/61f0040x/index-eng.htm>.

Albertans Employed in Knowledge-Intensive Companies

The number and percentage of employees in knowledge-intensive companies is one indicator of Alberta's research and innovation capability.

As with the number of knowledge-intensive companies, knowledge-intensive sectors are defined using the North American Industry Classification System (NAICS) codes:

- 3254 - Pharmaceutical and Medicine Manufacturing
- 334 - Computer and Electronic Manufacturing
- 3353 - Electrical Equipment Manufacturing
- 3359 - Other Electrical Equipment and Component Manufacturing
- 3364 - Aerospace Product and Parts Manufacturing
- 5112 - Software Publishers
- 5152 - Pay and Specialty Television
- 516 - Internet Publishing and Broadcasting
- 517 - Telecommunications
- 5182 - Data Processing, Hosting, and Related Services
- 5191 - Other Information Services
- 5413 - Architectural, Engineering and Related Services
- 5415 - Computer Systems Design and Related Services
- 5416 - Management, Scientific and Technical Consulting Services
- 5417 - Scientific Research and Development Services
- 6215 - Medical and Diagnostic Laboratories
- 8112 - Electronic and Precision Equipment Repair & Maintenance

Employment information for this indicator comes from Statistics Canada's Labour Force Survey. (For more information on the Labour Force Survey, see the Surveys section below.)

AFFORDABILITY OF THE LEARNING SYSTEM

Average Undergraduate Tuition Fees for Full-Time Canadian Learners

Tuition fees are one indicator of the affordability of the post-secondary system, but only a portion of all costs incurred by learners: for example, the data does not account for student financial assistance. Fees reported represent the average undergraduate tuition fees for full-time students in current Canadian dollars for the 2010-11 academic year.

2011 Facts and Figures pamphlet Background and Methodology Information

Data comes from Statistics Canada's *Survey of Tuition and Living Accommodation Costs for Full-time Students at Canadian Degree-granting Institutions Survey*. For more information, see <http://www.statcan.gc.ca/cgi-bin/imdb/p2SV.pl?Function=getSurvey&SDDS=3123&lang=en&db=imdb&adm=8&dis=2>

Average Education-Related Debt Reported by Graduates

The average debt at the time of graduation is one indicator of the overall affordability of the advanced learning system. Graduates surveyed two years after graduation were asked to provide their education-related debt at the time of graduation.

Data comes from the *Alberta Post-Secondary Graduate Outcomes Survey, Class of 2007-08*. (For more information, see the Surveys section below.)

Full-Time Learners Receiving Financial Assistance

This indicator describes the number of full-time Alberta learners receiving provincial and/or federal student loans, grants, and bursary awards. This data does not include learners receiving scholarships. This is a unique student count; a learner may receive multiple awards but he or she is only counted once.

Data comes from Advanced Education and Technology administrative records and Advanced Education and Technology's Students Finance System (SFS). (For more information on SFS, see the Databases section below.)

Scholarship Recipients

Scholarships are awarded to students for academic excellence or in recognition of other achievements, such as leadership or athletic ability. This indicator reports the number of Alberta learners receiving Alberta Heritage Scholarship Fund scholarships, and Achievement scholarships in the fiscal year (April 1, 2010 to March 31, 2011). Scholarship recipients and dollars awarded do not include French Fellowship awards, which are federal scholarship dollars administered by Advanced Education and Technology.

Alberta Scholarship Programs currently administers over 50 different scholarships funded through the Alberta Heritage Scholarship Fund and the Achievement Scholarship Program. All awards are merit based, including academic, artistic, athletic and community service scholarships.

Data comes from Advanced Education and Technology administrative records and Students Finance System (SFS). (For more information on SFS, see the Databases section below.)

Scholarship Dollars per Full-Time Learner

Scholarship investment reflects the advanced learning system's ability to recognize achievement and excellence that occurs throughout the learning process.

Scholarship dollars per full-time student is determined by the total scholarship expenditures divided by the total number of full-time students in Alberta's post-secondary institutions.

Scholarship expenditure data comes from Alberta Advanced Education and Technology's administrative records and enrolment data comes from Advanced Education and Technology's Learner Enrolment Reporting System (LERS). (For more information on LERS, see the Databases section below.) Note, enrolments for the Banff Centre are not reported through LERS, and so are not reflected in this indicator.

Ratio of Total Debt at Graduation to Income Two Years After Graduation

The ratio of debt at graduation to income two years after graduation compares the effect of a post-secondary credential on earning power to debt load. A lower ratio of debt to income is indicative of lower debt levels of students and/or higher incomes after graduation.

Data comes from the *Alberta Post-Secondary Graduate Outcomes Survey, Class of 2007-08*. Graduates were asked to provide their estimated gross annual salaries two years after graduation, and what their school-related debt was at the time of graduation from both government and private loan sources. (For more information, see the Surveys section below.)

2011 Facts and Figures pamphlet Background and Methodology Information

Graduates Who Agree their Program was Worth the Financial Cost

This indicator helps describe whether graduates have achieved their desired outcomes from post-secondary learning.

Data comes from the *Alberta Post-Secondary Graduate Outcomes Survey, Class of 2007-08*. Graduates surveyed two years after graduation were asked if they considered the program they graduated from to be worth the financial cost to themselves and/or their family. Responses for those who agree or strongly agree were combined to obtain the result. (For more information, see the Surveys section below.)

ACCESS AND PARTICIPATION IN LEARNING OPPORTUNITIES

Total Learners in Publicly Funded Post-Secondary Programs

Total learners (or “total unduplicated headcount”) include part-time and full-time learners, system-wide. Learners participating at more than one institution are only counted once; therefore, the system total may not equal the sum of institutional totals.

Data come from Advanced Education and Technology’s Learner Enrolment Reporting System (LERS). Enrolments for the Banff Centre are not reported through LERS, and so are not reflected in this indicator; but for this indicator, a paper report is submitted to Advanced Education and Technology to include the Banff Centre. (For more information on LERS, see the Databases section below.)

Aboriginal Learners in Publicly Funded Post-Secondary Programs

This indicator includes learners who have identified themselves as Status Indian/First Nations, Non-Status Indian/First Nations, Métis, or Inuit with the publicly-funded post-secondary institution they are attending. Since Aboriginal status is self-disclosed, the result may be under-reported.

Data come from Advanced Education and Technology’s Learner Enrolment Reporting System (LERS). Enrolments for the Banff Centre are not reported through LERS, and so are not reflected in this indicator. (For more information on LERS, see the Databases section below.)

Apprenticeship Registrations

Apprenticeship registrations are a key factor in generating a supply of skilled tradespersons to meet the needs of the Alberta economy. The ability to attract learners into the apprenticeship system is influenced by economic circumstances, employer willingness to hire and train more apprentices, and the capacity to accommodate apprentices at the post-secondary institutions for their in-school technical training.

This indicator shows the number of apprentices registered in the system as of December 31, 2010 for the 2010 calendar year. Apprentices who are registered in more than one trade or branch of a trade are counted only once.

Data comes from Advanced Education and Technology’s Apprenticeship Trade and Occupation Management System (ATOMS). (For more information on ATOMS, see the Databases section below.)

Aboriginal Learners Participating in Apprenticeship

Apprenticeship registrations are a key factor in addressing skill requirements for the Alberta economy. Participation in apprenticeship training is dependent on the economy and on initiatives to increase the number of Aboriginal Albertans in the trades.

This indicator captures the number of apprentices registered in the designated trades each calendar year who self-disclose their Aboriginal status. Approximately 80% of an apprentice’s time is spent on the job training under the guidance of a certified journeyman or qualified tradesperson while 20% is spent at technical training. Only self-identified Aboriginal Albertans are included in the count. The count is as of December 31st of each year.

Aboriginal apprentices who registered in more than one trade or branch of a trade within the year are counted only once. Totals include Aboriginal apprentices registered in Alberta’s apprenticeship and industry training system but who reside in other Canadian jurisdictions. These individuals participate in technical training in Alberta but are issued certificates in their home jurisdiction.

2011 Facts and Figures pamphlet Background and Methodology Information

Data comes from Advanced Education and Technology's Apprenticeship Trade and Occupation Management System (ATOMS). (For more information on ATOMS, see the Databases section below.)

International Visa Learners Studying in Alberta

International student participation is an indicator of the quality and international reputation of the advanced learning system.

International students are those who require a visa to study in Canada and are physically attending a publicly-funded post-secondary institution in Alberta at some point during the academic year. Data from Athabasca University are not included in this measure because all programs are non-resident, online programs.

Data come from Advanced Education and Technology's Learner Enrolment Reporting System (LERS). Enrolments for the Banff Centre are not reported through LERS, and so are not reflected in this indicator. (For more information on LERS, see the Databases section below.)

High School to Post-Secondary Transition Rate of Learners within 10 Years of Entering Grade 10

High school to post-secondary transition rate reports the percentages of Albertan learners in public, separate, Francophone, charter, and private schools who, within ten years of starting Grade 10,

- have enrolled in a credit program, part-time or full-time, in an Alberta post-secondary institution.
- are registered in an apprenticeship program other than the Registered Apprenticeship Program for high school students.
- are estimated to be attending a post-secondary institution outside the province.

$$\left(\begin{array}{c} \text{In-Province} \\ \text{Post-} \\ \text{Secondary} \\ \text{Attenders} \end{array} + \begin{array}{c} \text{Estimate of} \\ \text{Out-of-Province} \\ \text{Post-Secondary} \\ \text{Attenders} \end{array} \right) / \left(\begin{array}{c} \text{Grade 10} \\ \text{Cohort} \end{array} - \begin{array}{c} \text{Attrition} \\ \text{Factor} \end{array} \right) = \begin{array}{c} \text{Transition} \\ \text{Rate} \end{array}$$

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 rates.

Students are tracked using data from Alberta Education and Alberta Advanced Education and Technology systems. The high school to post-secondary transition rate includes adjustments for attrition and for attendance at post-secondary institutions out of province. Attrition adjustments are based on estimates from Statistics Canada's Annual Demographic Statistics.

Percentage of Albertans 18-34 Participating in Post-Secondary Education

The proportion of Albertans participating in post-secondary education tracks the percentage of the population aged 18-34 who report attending post-secondary programs. This includes learners who are attending a polytechnical, college or university (credit programs).

Data come from Statistics Canada's Labour Force Survey. (For more information on the Labour Force Survey, see the Surveys section below.)

Percentage of Transfers where Post-Secondary Graduates with Prior Learning Received the Transfer Credit they Expected

This indicator offers a view of graduates' expectations about transfer credit and on the flexibility of learner pathways in the advanced learning system, including collaborative transfer arrangements between Alberta's post-secondary institutions.

Data come from the *Alberta Post-Secondary Graduate Outcomes Survey: Class of 2007-08*. (For more information, see the Surveys section below.)

2011 Facts and Figures pamphlet Background and Methodology Information

Learner Mobility Rate between Public Post-Secondary Institutions in Alberta

This indicator describes the movement of learners between Alberta's post-secondary institutions, a growing trend in the advanced learning system.

The mobility rate of 5.9% for the academic year 2009/10 was calculated as follows:

The sum of learners attending individual institutions, other than the one(s) they attended the previous school year (16,140)*	Divided by	The total unduplicated headcount of learners attending public post-secondary institutions in 2008-09 (272,856)
---	------------	--

*The count of learners who are not attending the same institution in the current academic year as they were attending in the previous year.

Data come from Advanced Education and Technology's Learner Enrolment Reporting System (LERS). Enrolments for the Banff Centre are not reported through LERS, and so are not reflected in this indicator. (For more information on LERS, see the Databases section below.)

Public Satisfaction that Albertans can Access Education or Training

This indicator reports the percentage of respondents who are "satisfied" or "very satisfied" that adult Albertans have access to education or training throughout the province.

Data comes from the *2010-11 Satisfaction with Education in Alberta Survey*. (For more information, see the Surveys section below.)

Adult English as a Second Language Program Participants

Advanced Education and Technology's Community Adult Learning Program supports the provision of Adult English as a Second Language (ESL) learning opportunities through funding provided to Community Adult Learning Councils, Comprehensive Community Institutions, libraries, and literacy societies. These organizations are the primary providers of ESL programming to adults in rural Alberta, providing non-English speakers with classroom and small group or one-on-one opportunities to improve their proficiency in speaking, listening, reading and writing English.

The result includes only learning opportunities supported through the Community Adult Learning Program. Calendar-year data are submitted by organizations funded under the Community Adult Learning Program to Advanced Education and Technology annually in February.

For more information, see the *Community Adult Learning Program 2010 Report to Partners* at <http://aet.alberta.ca/community/publications.aspx>.

Adult Literacy Program Participants

Advanced Education and Technology's Community Adult Learning Program supports the provision of adult basic literacy learning opportunities through funding provided to Community Adult Learning Councils, Comprehensive Community Institutions, libraries, and literacy societies to help adults acquire foundational skills in reading, writing, document use and numeracy. Supported learning opportunities are flexible, occurring in formal classroom settings, informal one-on-one learning, and small group tutoring.

The result includes only learning opportunities supported through the Community Adult Learning Program. Calendar-year data are submitted by organizations funded under the Community Adult Learning Program to Advanced Education and Technology annually in February.

For more information see the *Community Adult Learning Program 2010 Report to Partners* at <http://aet.alberta.ca/community/publications.aspx>.

2011 Facts and Figures pamphlet Background and Methodology Information

Family Literacy Program Participants

Family literacy programs help break the intergenerational cycle of low literacy/low educational attainment by providing nonthreatening settings for adults to increase their confidence in engaging preschool children in early learning activities and encouraging adults to improve their own literacy skills. The Parent-Child Literacy Strategy, initiated in 2000, focuses on intergenerational educational approaches that integrate adult literacy instruction and early oral language development for children from birth to age six for economically and socially disadvantaged families (e.g., where parents have low literacy, English as a second language, low income, low educational levels, unemployment, under-employment or Aboriginal status). Programs are offered by Community Adult Learning Councils, literacy organizations and other community organizations.

Data reported are for the 2009-10 fiscal year, and include only programs funded through Advanced Education and Technology's Parent-Child Literacy Strategy; other family literacy programs exist in Alberta and are funded through other ministries or service organizations.

For more information see the *Parent-Child Literacy Strategy Progress Report* at <http://aet.alberta.ca/community/publications.aspx>.

QUALITY AND LEARNING OUTCOMES

Parchments Awarded by Publicly Funded Post-Secondary Institutions in Alberta

The number of parchments awarded indicates successful completions at publicly funded institutions in certificate, diploma and degree programs during the 2009-10 academic year. Parchments awarded may not equal graduates since graduates can earn more than one parchment.

Data come from Advanced Education and Technology's Learner Enrolment Reporting System (LERS). Enrolments for the Banff Centre are not reported through LERS, and so are not reflected in this indicator. (For more information on LERS, see the Databases section [below](#).)

Percentage of Albertans 25-64 who Completed a Post-Secondary Credential

For the purposes of this measure, post-secondary credentials include bachelor degrees, university certificates below a bachelor degree, degrees or certificates above a bachelor degree, trades certificates or diplomas from a vocational or apprenticeship training program, and non-university certificates or diplomas from a community college.

Data come from Statistics Canada's Labour Force Survey. (For more information on the Labour Force Survey, see the Surveys section below.)

Percentage of Learners who Completed their Post-Secondary Programs within the Credential Length plus 3 Years

Completing post-secondary programs indicates readiness to start a career, and correlates to higher labour market participation, lower unemployment, and typically higher wages. This indicator tracks full-time first year students entering or transferring into (in fall or winter) a publicly funded post-secondary parchment program. Post-secondary programs included in the calculation are certificates, diplomas, bachelor degrees, masters degrees, and doctoral degrees. The Banff Centre, Athabasca University, apprenticeship programs, applied degree programs and post-basic credentials are not included.

Three years have been added to the standard completion time frame to allow for flexibility in the time needed to complete a program. The time periods considered for completion are as follows, by credential:

- Certificates = 4 years: (1+3)
- Diplomas = 5 years: (2+3)
- Bachelor degrees (including university transfers) = 7 years: (4+3)
- Masters Degrees = 5 years: (2+3)
- Doctoral Degrees = 6 years: (3+3)

2011 Facts and Figures pamphlet Background and Methodology Information

A learner is considered completed when the credential obtained is equal to or higher than the program in which an individual started.

Data come from Advanced Education and Technology's Learner Enrolment Reporting System (LERS). (For more information on LERS, see the Databases section below.)

Percentage of First Period Apprenticeship Completers who were Certified in their Trade within Two Years of the Program Length

Apprentice completion rates is an indicator of the success of the apprenticeship industry training system in providing workers with the knowledge and skills they need to meet the high standards for proficiency in a trade. Completing apprentices may also write the Interprovincial Standards Red Seal exam and if successful, their Red Seal credential is recognized throughout Canada as a standard of excellence for industry.

This indicator includes apprentices who successfully completed all the requirements for their first period of apprenticeship in their trade. Trade programs of two years or more are included. Most programs are between 2 and 4 years in length. One year programs are excluded because tracking only begins after apprentices complete their first period. Apprentices are tracked two years beyond the standard program period.

Data comes from Advanced Education and Technology's Apprenticeship Trade and Occupation Management System (ATOMS). (For more information on ATOMS, see the Databases section below.)

Graduates' Satisfaction with the Overall Quality of their Educational Experience

This indicator targets Alberta graduates of parchment programs (certificate, diploma, bachelor, master's and doctorate). Data come from the *Alberta Post-Secondary Graduate Outcomes Survey: Class of 2007-08*. (For more information, see the Surveys section below.)

Respondents rated their satisfaction with the overall quality of their educational experience on a four point scale (very satisfied, satisfied, dissatisfied and very dissatisfied). The result combines "very satisfied" and "satisfied" responses.

Apprenticeship Graduates' Satisfaction with On-the-Job Training and Technical Training

Quality of training includes factors such as its ability to meet learner needs in terms of relevance and currency of the training content, teaching ability of instructors, and adequacy of equipment.

Data comes from the *Survey of 2009/10 Graduates of the Apprenticeship and Industry Training System*. (For more information, see the Surveys section below.)

Employment Rate of Albertans Aged 25-34 by Highest Level of Education

This indicator focuses on employment of Albertans aged 25 to 34, the group most likely to reflect the effects of Alberta's post-secondary education system. Results are broken into categories: completion of high school, a post-secondary certificate or diploma, or a university degree.

Data come from Statistics Canada's Labour Force Survey. (For more information on the Labour Force Survey, see the Surveys section below.)

Note: Data published in 2011 Facts and Figures are not comparable to data published in the 2008, 2009 or 2010 pamphlets:

- The 2010 Facts and Figures pamphlet used an employment: working-age population ratio. The 2011 Facts and Figures pamphlet uses an employment: labour force ratio. The latter is a more appropriate way to measure employment because it excludes those who are not seeking work.
- The 2008 and 2009 Facts and Figures pamphlet used an indicator from the *Alberta Post-Secondary Graduate Outcomes Survey: Class of 2005-06* which measured the employment reported by graduates two years after graduation.

2011 Facts and Figures pamphlet Background and Methodology Information

Median Annual Salary of Graduates

This indicator helps describe earning outcomes for graduates two years following completion of their program. Median salary better indicates salary in relation to credential type than average salary because the salary range across respondents was broad and outliers would skew the result.

Data come from the *Alberta Post-Secondary Graduate Outcomes Survey: Class of 2007-08*. (For more information, see the Surveys section below.)

DATABASES

Financial Information Reporting System (FIRS)

The Financial Information System (FIRS) is used by post-secondary institutions to report financial information to the Ministry of Advanced Education and Technology. The four key reports used to determine government and student contributions towards post-secondary education costs are revenues, expenses, indirect costs, and tuition fee revenue and expense summary.

Learner Enrolment Reporting System (LERS)

The Learner Enrolment Reporting System (LERS) is a database used by the Ministry of Advanced Education and Technology to track learners and learner characteristics in Alberta's publicly funded post-secondary institutions. Institutions submit credit-program enrolment data to the ministry, where it is subject to a host of verification processes until final confirmation by institutional and ministry officials. Data is reported for the academic year: May to April for universities, July to June for colleges and technical institutes, and May to April for private universities and colleges. Finalized data is available in the fall for the previous school year.

Learner headcounts reported in LERS show how many people are enrolled (full or part time) at a post-secondary institution. The total unduplicated headcount and may not equal the sum of the institutional totals as a learner can attend more than one institution in the same academic year.

The concept of a full-load equivalent (FLE) shows an equivalent number of those learners if they all took a full course load of studies. FLEs help reflect system capacity and allow for enrolment comparisons across programs and institutions.

Apprenticeship, Trade and Occupation Management System (ATOMS)

The Apprenticeship, Trade and Occupation Management System (ATOMS) is an administrative database used by the Ministry of Advanced Education and Technology to track registered apprentices in their trade over time. ATOMS is a dynamic database updated continually by field staff across the province; therefore, data generated from ATOMS is as up-to-date as the last entry, and reports may vary depending on when they were generated. As a result, it can be difficult to replicate data from ATOMS at a later date. Efforts are being made to freeze key data in ATOMS at key points in time. ATOMS replaced STIS, the previous database, on February 23, 2009.

Students Finance System (SFS)

The Students Finance System (SFS) supports the processing and administration of federal and provincial loans and grants to post-secondary students. SFS also supports the administration and processing of scholarships to post-secondary students. The system allows for self-service functions such as real-time online application processing and online inquiries. SFS is integrated with other Ministry of Advanced Education and Technology enterprise systems such as the Program Registry System (PRS), Stakeholder Registry System (SHR), and Confirmation of Registration (COR).

SURVEYS

Labour Force Survey

The Labour Force Survey is a monthly, Canada-wide survey conducted by Statistics Canada gathering information from a representative sample of households in the Canadian provinces and territories. Data is collected on all

2011 Facts and Figures pamphlet Background and Methodology Information

members of the household who are 15 years of age or older. Persons living on Indian Reserves, inmates of institutions, and full time members of the Canadian Armed Forces are excluded from the survey.

The Canadian sample size for the monthly Labour Force Survey was 55,864 households over the reporting period. Alberta's sample size corresponds to its share of the national population. An average of 5,499 Alberta households was surveyed each month in 2010 (Guide to the Labour Force Survey 2011, page 20.) The accuracy of Labour Force Survey estimates varies and is proportional to the size of the group identified. In general, the larger the head count in each age group, the higher the accuracy.

Aboriginal learners in publicly funded post-secondary programs:

Advanced Education and Technology, along with other government departments, contracted Statistics Canada to over sample the Aboriginal population in the LFS to improve the quality of data. Aboriginal identifier questions were added to the Alberta LFS and the sample was increased in urban centres with significant Aboriginal populations such as Edmonton, Calgary, Lethbridge, and Red Deer.

Percentage of Albertans 25-64 who completed a post-secondary credential:

The definition of post-secondary education for this indicator was expanded in the 2005 reporting year. Previously, only college and university participation rates were included in the calculation. The measure was expanded to include other post-secondary education: those who report attending institutions such as English as a second language or taking French language courses that do not qualify as high school, college or university education; computer and business skills programs other than those offered by colleges or universities; culinary, hairdressing or bartending schools; and police academies. Including these additional courses and programs aligns the indicator with the Department's intention to encourage all types of advanced learning.

The 2011 Guide to Labour Force Survey is available online at http://www.statcan.gc.ca/access_acces/alternative_alternatif.action?teng=71-543-g2011001-eng.pdf&tfra=71-543-g2011001-fra.pdf&l=eng&loc=71-543-g2011001-eng.pdf

Post-Secondary Graduate Outcomes Survey

The Post-Secondary Graduate Outcomes Survey is conducted every other year. Graduates of publicly funded post-secondary institutions are surveyed two years after graduation.

The 2009-10 survey was coordinated by Alberta Advanced Education and Technology and conducted by an independent third-party contractor. The contractor completed 9,887 with 2007-08 graduates from parchment programs at 26 Alberta publicly funded post-secondary institutions. Results have a 95% confidence level and a 5% confidence interval.

Graduates were surveyed by telephone about their employment outcomes upon graduating, further studies undertaken, and satisfaction with the overall quality of their educational experience. The survey instrument is available on the Advanced Education and Technology website at <http://aet.alberta.ca>.

Survey of Graduates of the Apprenticeship and Industry Training System

This survey is conducted every other year, most recently in the fall of 2010 with 4,426 interviews of apprentices who had graduated between August 1, 2009 and July 31, 2010. Graduates were surveyed by telephone or internet about their satisfaction with the apprenticeship and industry training system. Survey findings were published in the report *Survey of 2009-10 Graduates of the Apprenticeship System – Key Performance Indicators, July 2011*.

Satisfaction rates are based on those respondents who report being somewhat satisfied or very satisfied (on a four-point scale of very satisfied, somewhat satisfied, somewhat unsatisfied, and very unsatisfied). The percentages of respondents satisfied with the quality of their on-the job and the quality of their technical training are calculated by dividing the sum of the somewhat and very satisfied by the total number of survey respondents, including "don't know" responses.

2011 Facts and Figures pamphlet Background and Methodology Information

Not all apprenticeship graduates completed a technical training component as part of their apprenticeship program. As a result, respondents who had not completed any technical training while registered in the apprenticeship program or who had completed their technical training prior to starting their apprenticeship were omitted from this technical training satisfaction portion of the analysis. This represents about 8% of the apprentice graduate population.

The following table provides the number of completed interviews and confidence interval for each cohort.

Sector	Completed Interviews	Confidence Interval
Graduates who attended technical training and completed on-the-job training requirements of their trade in the 2009-10 school year	2,484	±1.4%
Graduates who completed their apprenticeship program in the 2009-10 school year, but did not attend technical training in that year	1,942	±1.6%
Total	4,426	±1.1%

Based on the outcome of all call attempts, an overall response rate of 51% was achieved for Cohort 1 and 46% for Cohort 2, with an overall response rate of 49%. Overall survey results provide a margin of error of no greater than +1.1% at the 95% confidence level.

Public Satisfaction Survey

Alberta Advanced Education and Technology and Alberta Education annually commission a telephone survey of the Alberta public to obtain perceptions of how the education system meets learners' and society's needs. A professional survey research firm is contracted to conduct the survey, using trained interviewers and the Computer Assisted Telephone Interviewing (CATI) system. Survey results are compiled by the survey research firm and provided to the two ministries.

The survey instruments use a four-point response scale (very satisfied / satisfied / dissatisfied / very dissatisfied or strongly agree / agree / disagree / strongly disagree), depending on the question. 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. Survey results are considered accurate at a confidence level of 95% with a +1 2.5% margin of error.

Survey results were available in April 2011. See <http://aet.alberta.ca/ministry/stats.aspx> for more information.

“DID YOU KNOW” DATA SOURCES

The four Alberta Innovates corporations support the Government's goal of making Alberta a greener, more prosperous and healthy province through strategic investment in research and innovation projects.

Source: Advanced Education and Technology administrative records
For more information on Alberta Innovates visit <http://www.albertainnovates.ca>.

Advanced Education and Technology's Research Capacity Program leverages funding from the provincial, federal and private sectors to build capacity at Campus Alberta institutions and maximize investment in research and innovation.

Source: Advanced Education and Technology administrative records
For more information on the Research Capacity Program visit <http://www.advancededucation.gov.ab.ca/research/rcp.aspx>.

The number of international visa students in graduate programs in Alberta rose 53% in 5 years to 3,742.

Source: the Learner and Enrolment Reporting System (LERS)
See Databases for more information on LERS.

In 2009, scientists and engineers accounted for 8% of Alberta's labour force, the third highest nationally.

Source: Statistics Canada and the 2011 Campus Alberta Planning Resource.
Note that this is the most recently available data and does not include territories.

2011 Facts and Figures pamphlet Background and Methodology Information

For more information on the Campus Alberta Planning Resource visit
<http://www.advancededucation.gov.ab.ca/post-secondary/policy/capr.aspx>.

Since its launch in 2010, the Alberta Innovates Connector Service connected over 1,500 clients (entrepreneurs, researchers, businesses and service providers) with programs, services and expertise throughout Alberta's research and innovation system.

Source: Advanced Education and Technology administrative records.

Alberta Innovates Connector Service can be accessed by calling 1-877-828-0444 or emailing connector@albertainnovates.ca.

Alberta's product commercialization centres (TecTerra, Clinexus, Biovantage, Alberta Centre for Advanced MNT Product Development, Biomaterials Development Centre) provide start-up and growth-oriented companies with access to expertise and equipment to advance their products and services to market readiness.

Source: Advanced Education and Technology administrative records.

For more information on Alberta's product commercialization centres visit
<http://www.advancededucation.gov.ab.ca/technology/support/centres.aspx>.

In 2009-10, the Government of Alberta covered 63% of a student's educational costs through grant support to institutions for the delivery of credit instruction, the student contributed 21% through tuition and institution fees, and 16% came from other sources.

Source: Advanced Education and Technology's Administrative Records and the Financial Information Reporting System (FIRS)

See Databases for more information on FIRS.

In 2010-11, approximately \$70 M in scholarships were awarded to over 36,000 Alberta learners.

Source: Advanced Education and Technology administrative records.

Alberta has about 11% of Canada's labour force; however, industry in Alberta hires and trains more than 20% of the country's apprentices.

Source: Provincial apprenticeship data comes from the Canadian Council of Directors of Apprenticeship. Labour force data comes from Alberta Employment and Immigration Labour Force Statistics.

An additional 3,500 qualified applicants received offers of admission to post-secondary programs in 2010 than in the previous year.

Source: Advanced Education and Technology Application Submission Initiative and 2011 Campus Alberta Planning Resource.

For more information on the Campus Alberta Planning Framework visit
<http://www.advancededucation.gov.ab.ca/post-secondary/policy/capr.aspx>.

In 2010, 23,411 adults accessed free tutoring services, family and adult literacy programming, and English as a Second Language programming through a province-wide network of community organizations.

Source: *Community Adult Learning Program 2010 Report to Partners*, October 2011, available online at <http://aet.alberta.ca/community/publications.aspx>.

In 2010, the average hourly earnings for a person with a university degree in Alberta was \$31/hour, \$10 more an hour than a person with a high school diploma.

Source: Statistic Canada's Labour Force Survey

See Surveys for more information on LFS.

Since the inception of the Interprovincial Standards Red Seal program over 50 years ago, Alberta has issued 29% of all Red Seals in Canada.

Source: Canadian Council of Directors of Apprenticeship.

For more information on the Council visit <http://www.red-seal.ca/c.4nt.2nt@-eng.jsp?cid=25>.