



A Transformation in Progress

ALBERTA'S K-12 EDUCATION WORKFORCE 2012/2013

A Transformation in Progress: Alberta's K-12 Education Workforce 2012/2013

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Executive Summary

Introduction

The purpose of this report is to help strengthen evidence-based decision-making in the K-12 education system regarding resource allocation and anticipating workforce trends and demands. This report outlines the demographics of Alberta's student and teacher populations and discusses trends in both populations.

Methodology

The data contained within this document is from a variety of sources including Statistics Canada, Alberta Enterprise and Advanced Education, Alberta Treasury Board and Finance and particularly the *Student Population Project and Teacher Forecasting Model*, which projects Alberta's student population and workforce trends using inputs from the Government of Alberta and school jurisdiction data.

Economic and Population Growth

Due to the province's strong economy, Alberta's population is growing at a yearly rate that is consistently higher than Canada as a whole. This population growth will affect Alberta's student population, which is anticipated to grow from 596,500 students in 2012 to 709,900 students by 2022.

High birth rates also have an impact on the student population in Alberta. As a result, it is expected that the number of students in grades K-3 will increase by over 20% during the next ten years, increasing the demand for teachers and facilities to meet the needs of students in this grouping. Overall, the student population is expected to increase most in the Calgary and Edmonton regions.

A Diverse Student Population

English as a Second Language students comprise 10% of the total student population, with over 25% of this population present in the larger urban boards of Calgary and Edmonton.

The First Nations, Métis and Inuit (FNMI) population in Alberta is younger and growing more rapidly than the general population. FNMI students make up 9% of Alberta's school-age population (aged 5 –19 years) and over 50% of FNMI people in Alberta are under the age of 24. These factors will lead to an increasing FNMI student population.

The Teaching Workforce

Over the next ten years, the Alberta student population is expected to increase by over 112,000 students, resulting in an anticipated need for an additional 6,500 Full-Time Equivalent (FTE) teachers. While Alberta graduates around 2,000 Bachelor of Education students a year, only around 75% of those graduates become teachers in Alberta classrooms.

Alberta teachers are the highest paid of any of the provinces in Canada. On average, Alberta teacher salaries range from \$58,500 to \$99,300 depending on the salary grid of the employer, the teacher's education and teaching experience.

The current education workforce has high ratio of females to males. 71% of the workforce is female while only 29% is male.

A large portion of the teacher population is eligible for retirement, and the average age of teachers in Alberta is 42, with over 25% of the teaching population over the age of 50.

Approximately 3% of the teachers who graduate from Bachelor of Education programs self-identify as FNMI. Although methods to provide data regarding Alberta's self-identified FNMI education workforce are not currently in place, Alberta Education is exploring appropriate ways and opportunities to collect this information.

Teacher Supply

Due to the ageing workforce, retirement rates are projected to remain around 1,000 per year until 2016. After 2016, retirement rates are projected to decrease slowly as many eligible staff will have already retired. Approximately 25% of teachers leave the profession within the first 5 years of teaching.

Various school authorities from across the province hire teachers from out-of-province and out-of-country to make up for the shortfall in supply of teachers from Alberta, ranging from 18% at the lowest in Zone 4 (south central region) and 65% at the highest in Francophone school authorities.

The current gender balance of the K-12 education workforce is expected to continue as the ratios of those graduating from Bachelor of Education programs in Alberta is comparable, with 77% of graduates who are female and 23% of graduates who are male.

Teacher Demand

The demand for teachers in Alberta will continue to remain strong over the next ten years, with the highest demand for teachers around the urban areas of Calgary and Edmonton. Hiring demands are expected to increase across the province, with the highest hiring increases in Zone 5 (Calgary/west region) and in the Francophone school authorities.

Conclusion

Alberta Education is collaborating with education stakeholders to continue addressing the challenges presented by Alberta's growing and diverse student populations and to support the needs of the K-12 education workforce to ensure every student's success (Appendix A).

Introduction

To provide proactive solutions to emerging workforce challenges, Alberta Education collaborated with a committee of education stakeholders to create the [Education Sector Workforce Planning Framework for Action](#). The Framework is a five-year strategic plan and represents the education sector's commitment to attract, develop and sustain educators in Alberta. It is intended to serve as a roadmap for change, to ensure Alberta's students have access to the best education possible, now and in the future.¹

The Framework aligns with major initiatives such as [Inspiring Education: A Dialogue with Albertans](#), [The Framework for Student Learning](#), [The Teaching Quality Standard](#) and [The Alberta School Leadership Framework](#), all of which share an articulated vision for the future of education through specific outcomes. The Framework also supports the vision for Alberta's education system, instilling Alberta's youth with the qualities and abilities of an engaged thinker, an ethical citizen and an entrepreneurial spirit.

An education workforce that can support this vision is essential. To this end, Alberta Education provides customized student population and educator workforce portraits and projections to each superintendent in Alberta. These demographics enable education planners to engage in strategic, evidence-based conversations that result in action-oriented initiatives and policies that benefit Alberta's students.

This document showcases Alberta's student and educator demographic portraits and projections, and supports effective teacher recruitment practices to ensure that highly qualified, innovative and student-centered teachers are attracted to the profession. It highlights Alberta Education's on-going efforts to support a strong K-12 education workforce that will help Albertans achieve their vision for the future of education.

¹ For more information regarding the initiatives resulting from this work, see Appendix A.

Forecasting Methodology

Overview of the Model

The Alberta Education *Student Population Projection and Teacher Forecasting Model's* primary function is to serve as a springboard for strategic, evidence-based conversations about student population changes in school authorities based on data and sound forecasting methodology.

The Model is based on a standard demographic forecasting method used by academics and forecasters around the world, and uses historical data patterns to determine the input variables used to calculate the forecasts. The Model provides student population and educator workforce data in a visual format which can be used in decision-making conversations to inform how a school jurisdiction might respond to forecasted changes. It provides a platform for considering future trends and the impact that these trends will have on budgets, staffing, programs and facilities.²

The Model was designed to forecast the student population at both the jurisdictional and provincial levels and the number of certificated staff³ who will be required to address changing student populations while meeting an identified certificated staff-to-student ratio.

While the Model is proving to be an accurate predictor of student population and educator workforce demand, it cannot predict the future. However, it does indicate trends and scenarios that are useful to inform the discussions of strategic planners in the K-12 education sector.

² The *Student Population Projection and Teacher Forecasting Model* provides student population and education workforce projections for public, separate and Francophone school divisions in Alberta, excluding Lloydminster Public School Division or the Lloydminster Roman Catholic Separate School Division. In the context of this document, the term “school jurisdiction” refers to these school divisions.

³ The Model's counts for education staff include staff who hold a teaching certificate. This may include central office administrators, teacher librarians and other education staff in addition to teachers.

Data Sources

The Model uses data and inputs from a variety of sources:

- School jurisdiction student population and education workforce data.
- Alberta Health population data (population, fertility and migration).
- Alberta Health detailed fertility data.
- Alberta Education student data (student population data, student participation rates and K-12 education workforce data).
- Alberta Education school infrastructure capacity data.
- Alberta Treasury Board and Finance projected fertility and migration inputs.

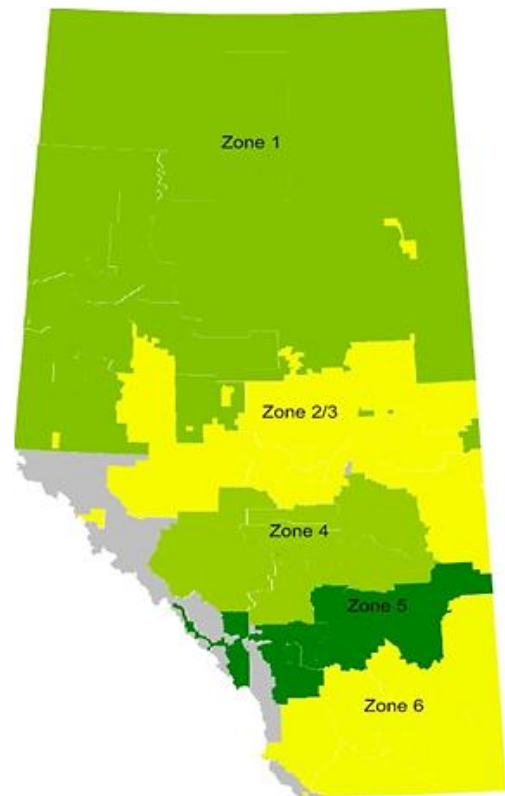
Geo-Mapping

For the purposes of organizational governance, Alberta Education divides the province into various geographic regions.

- Zone 1 (North)
- Zone 2/3 (Central)
- Zone 4 (South Central)
- Zone 5 (Calgary/West Region)
- Zone 6 (South/East)

Francophone regions are distributed across Alberta.

Figure 1: Alberta Education Governance Zones



The Big Picture: Alberta's Economic and Population Growth

Economic Growth

Alberta's economy is strong and economic indicators for the province remain encouraging.

Alberta Economy Indicators at a Glance (from Alberta Treasury Board and Finance. January 4, 2013.)

Real Gross Domestic Product (GDP)

In 2011, Alberta's real GDP advanced 5.1%, the strongest growth among the provinces and the largest gain since 2006. GDP growth was 4.0% in 2010. Nationally, real GDP rose 2.6% in 2011, lower than the 3.2% recorded in 2010.

Population

As of October 1st, 2012, Alberta's population was estimated at 3,906,839, a 2.9% increase from a year earlier. Nationally, population grew by 1.1% from a year earlier to reach 35,002,447.

Migration

In the third quarter of 2012, Alberta welcomed 13,915 net interprovincial migrants and 10,809 net international migrants, along with 3,946 non-permanent temporary workers.

Inflation

Alberta's CPI inflation rate remained low at 0.6% in November. Nationally, the inflation rate fell to 0.8% in November from 1.2% in October.

Retail Trade

Alberta retail sales increased 0.9% to \$5.9 billion in October and were 6.1% higher than the same month a year ago. Nationally, retail sales increased by 0.7% in September and were 1.7% above the same month last year.

New Housing Price Index (NHPI)

The new housing price index in Alberta increased 1.6% on a year-over-year basis in October. At the city level, the prices of new houses increased year-over-year by 2.4% in Calgary and 0.8% in Edmonton. Nationally, prices were 2.4% higher than a year ago.

All of this activity contributes to a vibrant and growing province. It also has implications for the education workforce.

Population Growth

Alberta’s population has grown at a rate that consistently exceeds Canada’s average growth rate as demonstrated in Table 1. This growth trend is expected to continue. On October 1, 2012, Alberta’s population was 3.906 million. Using moderate growth projections, the general population in Alberta is projected to grow to 4.583 million by 2022, and Alberta’s student population is expected to grow from its current level of 596,500 to 709,900 by 2022.

Table 1: Population and Growth Rates, Canada and Alberta (from Alberta Treasury Board and Finance (2012). Quarterly Population Report, Third Quarter 2012, p.1)

Population			Yearly Growth Rate		
October 1-12	Canada	Alberta	October 1-12	Canada	Alberta
2007	33,047,510	3,531,286	2007	1.09%	2.26%
2008	33,447,590	3,614,584	2008	1.21%	2.36%
2009	33,857,757	3,687,243	2009	1.23%	2.01%
2010	34,256,390	3,737,480	2010	1.18%	1.36%
2011	34,606,356	3,797,977	2011	1.02%	1.62%
2012	35,002,447	3,906,839	2012	1.14%	2.87%

Births in Alberta

After a 20-year downward trend in the 1980s and 1990s, the total number of births began increasing in the early 2000s and the rate has continued to increase. After surpassing the previous peak of 45,470 (1983) in 2007, births in Alberta rose to a record high of 52,937 in 2010.

The increase in the number of births can be partially explained by the expanding population in Alberta. Total births in the province increased more than 70% from 29,384 in 1972 to 51,702 in 2011, yielding an average annual growth in the birth rate of 1.7%.

Alberta’s total population more than doubled during the same period, giving an average annual growth rate of 2.4%. However, population growth does not always translate into more births. For instance, Alberta’s population continued to grow in the 1980s and 1990s, whereas the total number of births declined. Therefore, other factors, such as people’s preference on

when to have children and how many children to have, will also have a significant impact on the number of births in the province.

Profile of the Student Population in Alberta

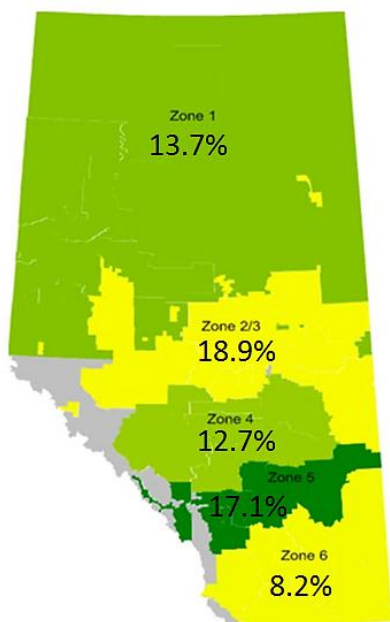
Anticipated Ten-Year Growth

The impact of a strong economy and stable fertility rates will result in significant growth in student populations over the next ten years, with the majority of growth occurring in the urban regions of Calgary and Edmonton (Figure 2).

Anticipated K-3 Growth

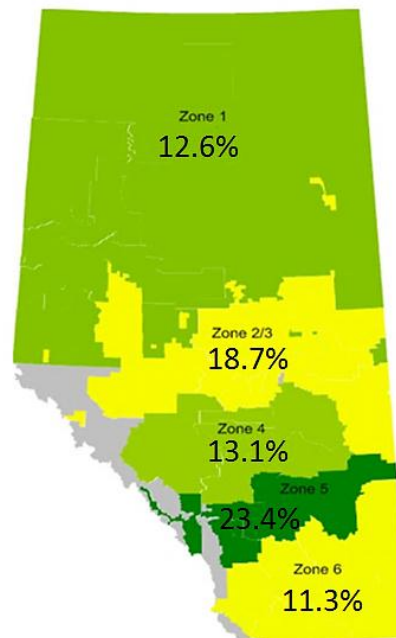
Over the next ten years, growth in the K-3 grades is expected to increase by over 20%, thereby increasing demand for K-3 teachers and placing pressure on facilities that meet the needs of students in grades K-6 (Figure 3).

Figure 2: Anticipated K-12 Student Growth by Governance Zone



Source: Alberta Education, Student Population Projection and Teacher Forecasting Model (2012)

Figure 3: Anticipated K-3 Student Growth by Governance Zone



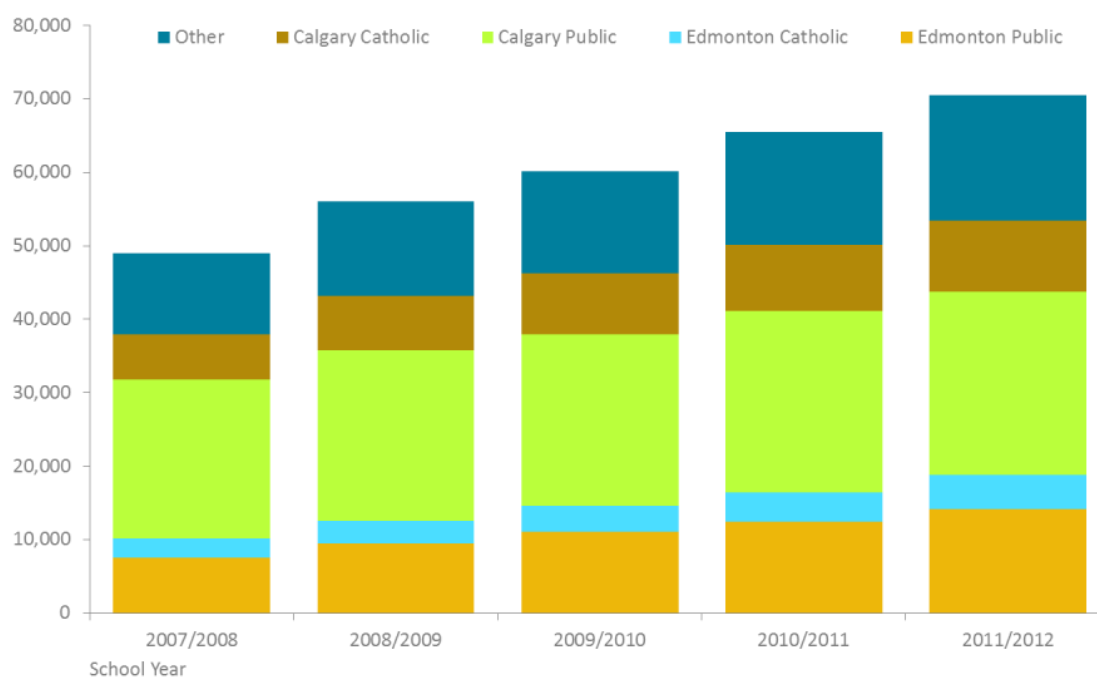
Source: Alberta Education, Student Population Projection and Teacher Forecasting Model (2012)

English as a Second Language Student Population

With continued immigration, Alberta's English as a Second Language (ESL) population is growing.

Across Alberta, the ESL population comprises approximately 10% of the total student population. In the larger metropolitan boards, ESL populations comprise almost 25% of the total student population. The largest proportion of the total ESL student population is in the Calgary school authorities (Figure 4) followed by Edmonton school authorities.

Figure 4: Alberta's English as a Second Language Population (2007/2008-2011/2012)



Source: Alberta Education, Business Intelligence Reporting (2012)

First Nations, Métis or Inuit Student Population

Alberta has a strong and growing representation of First Nations, Métis and Inuit (FNMI) people within its population. Approximately 6% of Alberta's population self-identifies as FNMI, and this population has grown at more than twice the rate of the general population. This is due in part to higher birthrate but largely results from increased willingness to self-identify. FNMI students make up 9% of Alberta's school-age population (aged 5–19 years) and over 50% of FNMI people in Alberta are under the age of 24.

In comparison, just over 30% of Alberta's non-FNMI population is in the same age range.⁴

These growth trends are resulting in increasing numbers of FNMI students in Alberta schools, highlighting the importance of increasing the number of FNMI teachers and ensuring Alberta teachers understand the importance of FNMI histories, cultures and languages in supporting FNMI student success.

Work is currently underway within Alberta Education and throughout the province to continue collaborating with FNMI communities and with Alberta's education stakeholders to explore further opportunities to support FNMI student success.⁵

Workforce Planning in Alberta's Education Sector

There are two critical dimensions to consider when engaging in workforce planning in the education sector.

Supply Considerations

The supply of teachers is driven by four main factors:

- The number of persons interested in careers in education.
- The number of graduates from Alberta's teacher preparation programs who enter the K-12 education workforce.
- The number of teachers from out-of-province who move to Alberta.
- The number of teachers with specific subject or grade-level specialization.

⁴ Statistics Canada, 2006 Census of Population.

⁵ A number of these K-12 education workforce initiatives are articulated in Appendix A.

Demand Considerations

The demand for teachers in Alberta is driven by four main factors:

- The size of the student population within a given community or region.
- Workforce attrition (retirements, terminations, those who leave the profession early in their career, leaves of absence, etc.).
- Student-to-certificated-staff ratios.
- Course programming and subject specialization.

Both dimensions are greatly affected by Alberta's economy. Using moderate projections⁶ of fertility, migration, staff attrition, student participation and student-to-staff ratios it is expected that:

- As shown in Figure 5, the Alberta student population will increase by over 112,000 students over the next 10 years. This expected increase in student population means the K-12 education sector is expected to require over an additional 6,500 Full-Time Equivalent (FTE) certificated staff.
- Each year, the system will need to hire sufficient teachers to maintain acceptable student-to-certificated staff ratios. Using a projected student-to-certificated-staff ratio of 17.2:1⁷, approximately 2,000 new hires will be needed in 2012/2013. This number is expected to increase to 2,500 new hires in 2022.

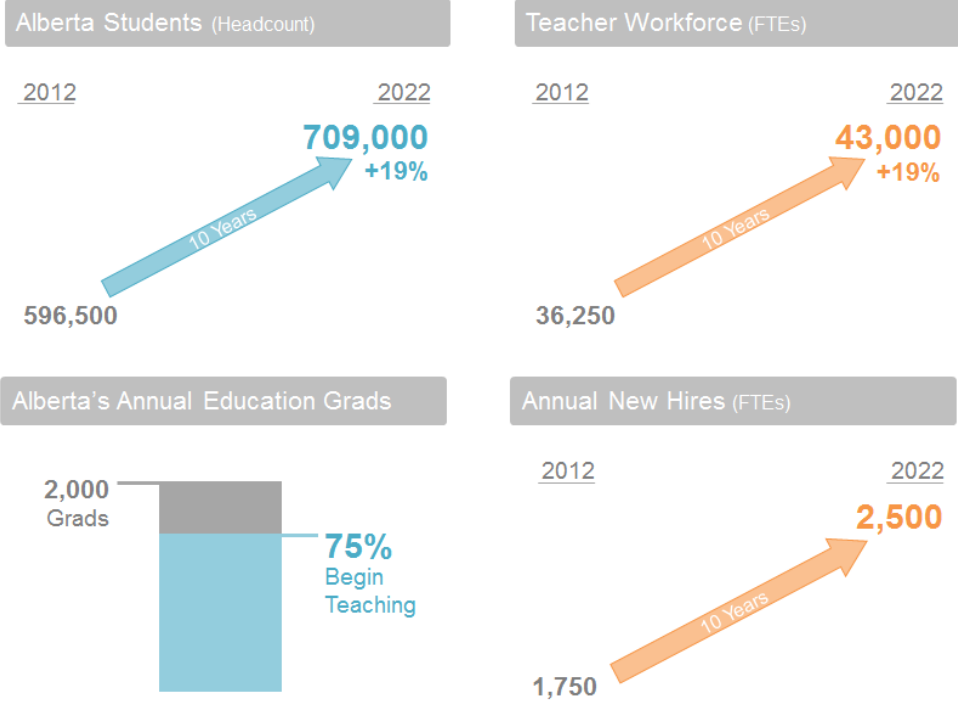
Typically, of the 2,000 graduates who successfully complete a teacher preparation program in Alberta, 1,500 will go into teaching. The remaining 500 choose alternative paths including further education, teaching in other provinces or countries or other occupations. This means that Alberta's

⁶ The term "moderate projections" means a projection scenario based on historical data and trends that is neither the highest anticipated numbers nor the lowest anticipated numbers, but numbers that are the middle of the highest and the lowest anticipated, which provides a more reasonable projection. This projection may vary either higher or lower in actuality. The moderate projection uses fertility and migration figures derived from Alberta Finance's population forecast to calculate the scenario inputs for fertility and migration. A mathematical process then creates and balances the fertility and migration assumptions for each jurisdiction to ensure the jurisdictions sum to the projection for Alberta. Attrition rates are assumed to be the average for the past ten years. Participation rates and staff ratios are assumed to remain constant at their most recent historical value.

⁷ This ratio is derived from the *Student Population Projection and Teacher Forecasting Model's* methodology, and reflects education staff who hold a teaching certificate. This may include central office administrators, teacher librarians and other education staff in addition to teachers.

school authorities will need to be increasingly aggressive in attracting teachers prepared in other provinces and territories to meet the hiring demand.

Figure 5: Overview of the Projected Education Workforce (2011/2012 to 2021/2022)



Note: Forecasted numbers are rounded.

Source: Alberta Education, Student Population Projection and Teacher Forecasting Model (2012)

Profile of the K-12 Education Workforce in Alberta

Teacher Salary Data

In Alberta, school authorities are the employers of teachers. As such, teacher salary grids are determined through collective agreements between school authorities and the Alberta Teachers' Association. These salary grids vary from school authority to school authority, and an individual teacher's rate of pay is determined with consideration of their employer's salary grid through a combination of experience and years of education. At minimum, all teachers in Alberta must have a Bachelor of Education (B.Ed.) from a post-secondary institution (or a recognized degree supplemented by an approved teacher preparation program) and must be certificated by the province to teach. Many teachers choose to pursue further education which results in a change to their placement on the salary grid.

On average, a full-time teacher working in Alberta with varying levels of experience and education will earn the salaries indicated in Table 2.

Table 2: Average Teacher Salaries in Alberta According to Education and Experience

	Under 10 years of experience	10 or more years of experience
4-years of post-secondary (B.Ed. degree)	\$58,500	\$92,300
5-years of post-secondary with a B.Ed. degree	\$61,800	\$95,600
6-years of post-secondary with a B. Ed. degree	\$65,400	\$99,300

Note: Values are approximate and rounded to the nearest hundred.

Source: Alberta School Boards' Association

There are always exceptions to this generalization and individual collective agreements must be consulted for specific salary ranges in each school authority.

Demographic Profile

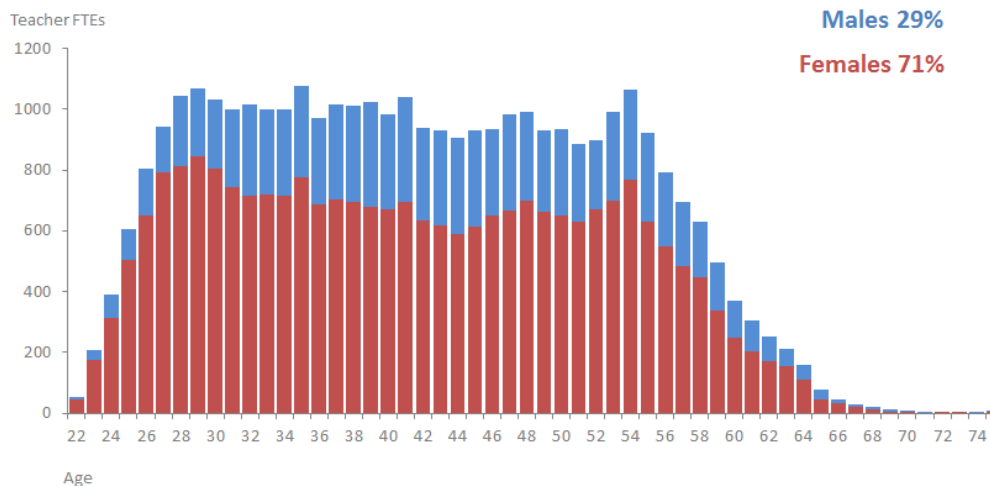
Alberta's school jurisdictions employ approximately 35,000 FTE teachers, with almost 42,000 certificated staff employed in the system. The difference between the two numbers reflects teachers who work part-time and staff who hold a teaching certificate but may work in other positions that are not necessarily as classroom teachers.

Age and Gender Profile

Alberta's K-12 education workforce has four distinctive age and gender characteristics as shown in Figure 6.

- A large portion of teachers are eligible to retire within the next 5 years.
- A large portion of teachers were recently hired, many of whom are female.
- Only 29% of teachers within the system are male.
- Only 23% of new graduates from teacher preparation programs are male (Figure 13, p. 20).

Figure 6: Alberta Teacher Ages and Gender Distribution (2011/2012)



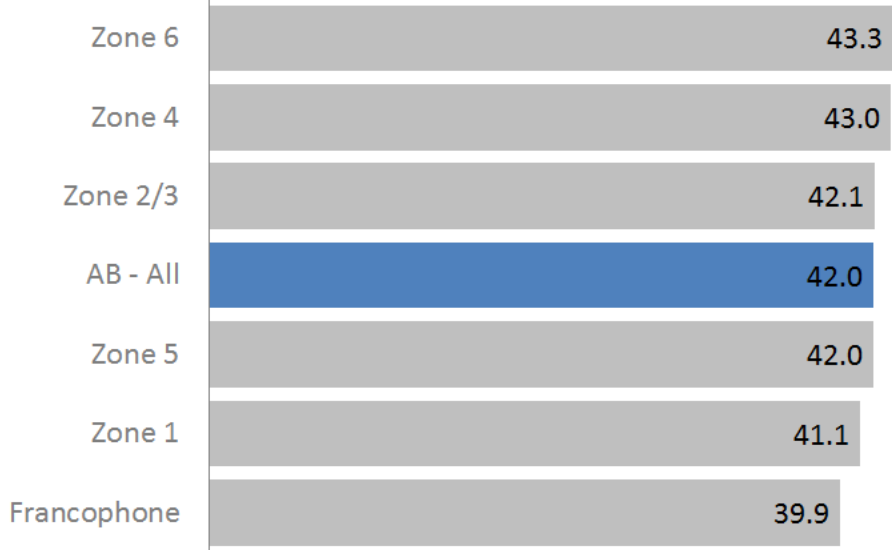
Notes:

1. Substitute teachers are excluded.
2. Teachers aged 22 or less are included in age 22. Teachers aged 75 or more are included in age 75.

Source: Alberta Education, Workforce Planning Datamart (Fall 2011/12)

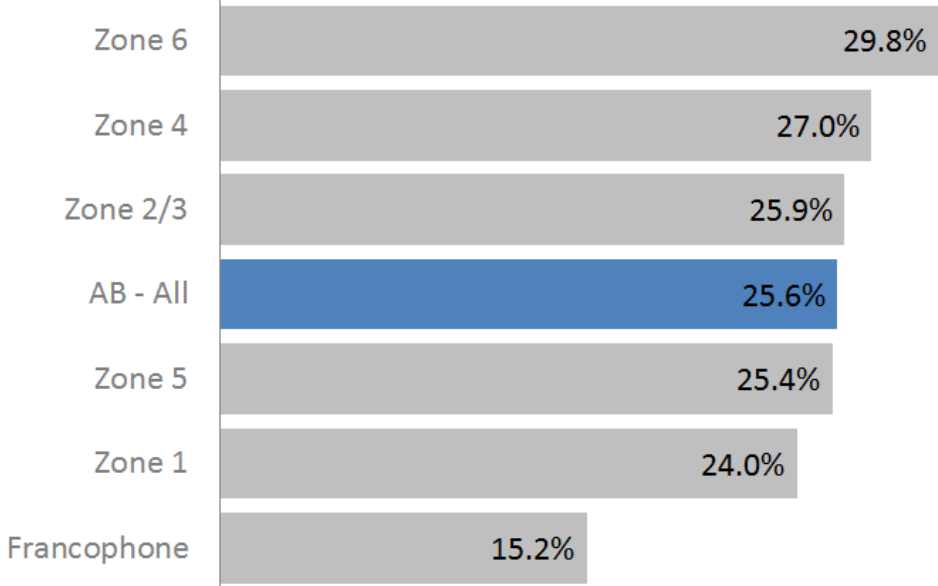
While there have been a significant number of new hires over the past few years, the average age of teachers in Alberta is 42 (Figure 7). This is reflective of the high percentage of teachers over the age of 50 and close to or eligible for retirement (Figure 8).

Figure 7: Average Age of Teachers in Alberta by Governance Zone (2011/2012)



Source: Alberta Education, Workforce Planning Datamart (Fall 2011/12)

Figure 8: Percentage of K-12 Education Workforce Staff Over the Age of 50 by Governance Zone (2011/2012)



Source: Alberta Education, Workforce Planning Datamart (Fall 2011/12)

First Nations, Métis and Inuit Teacher Workforce

Alberta's post-secondary institutions graduate around 2,000 Bachelor of Education students every year and over the last five years, approximately 3% of all these graduates self-identified as Status Indian/First Nations, Non-Status Indian/First Nations, Métis or Inuit (FNMI). This is comparable to other undergraduate programs.⁸

Bachelor of Education graduates who become teachers may work in provincial school authorities or First Nations education authorities, or both at some point in their careers. Currently, Alberta's education system does not collect data on the number of certificated FNMI teachers within the education workforce. However, education stakeholders have expressed interest in this data.

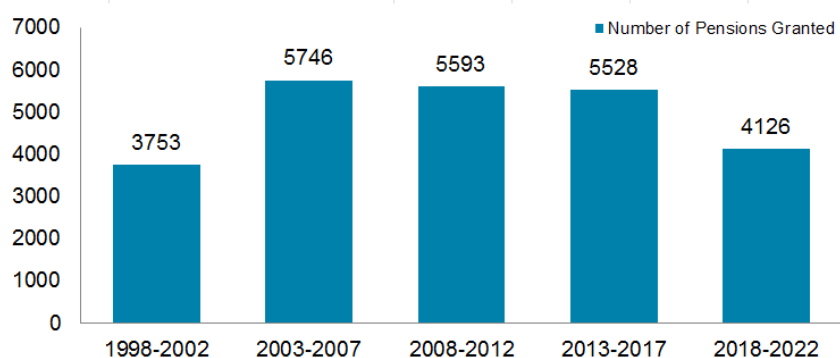
Alberta Education is considering appropriate methods to collect data regarding the number of self-identified FNMI graduates who enter and remain in Alberta's K-12 education workforce to create a better understanding of the FNMI teacher workforce.

Teacher Supply

Teacher Retirement Outlook

Due to the ageing workforce, retirement rates are projected to remain around 1,000 per year until 2016. After 2016, retirement rates are projected to decrease slowly as many eligible staff will have already retired (Figure 9).

Figure 9: Alberta Teacher Retirement Outlook (1998-2022)



Source: Alberta Teachers' Retirement Fund Board (2012)

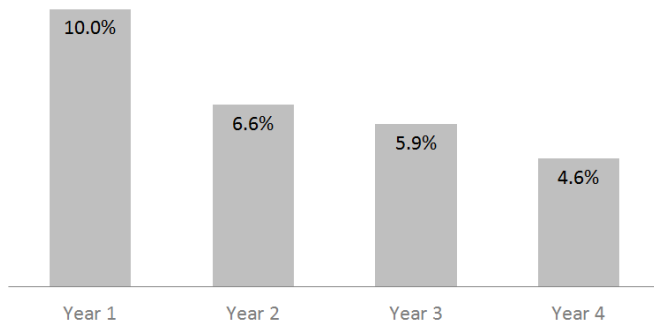
⁸ Source: Alberta Enterprise and Advanced Education

Teacher Attrition in Alberta

There is evidence that a relatively high number of teachers leave the Alberta education system during the first four years of their career.⁹

Figure 10 demonstrates that on average, approximately 10% of early career attrition happens in the first year. An additional 6.4% of the base year new hires leave in year two, an additional 5.9% the next year, etc.

Figure 10: Alberta K-12 Education Workforce Early Career Attrition (2004/2005 to 2006/2007)

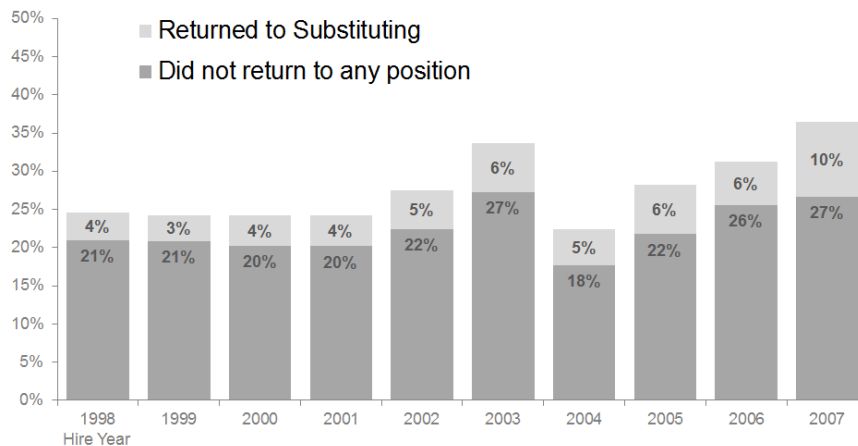


Source: Alberta Education, Workforce Planning Datamart (Fall 2011/12)

Data suggests a lower likelihood of educators leaving the system once they are more established in their careers.

When cohort data is examined (Figure 11), a trend toward a five-year early career attrition rate above 25% is evident.

Figure 11: Alberta's Percentage of Hires Leaving the K-12 Education Workforce in the First Five Years and Not Returning



Source: Alberta Education, Workforce Planning Datamart (2012)

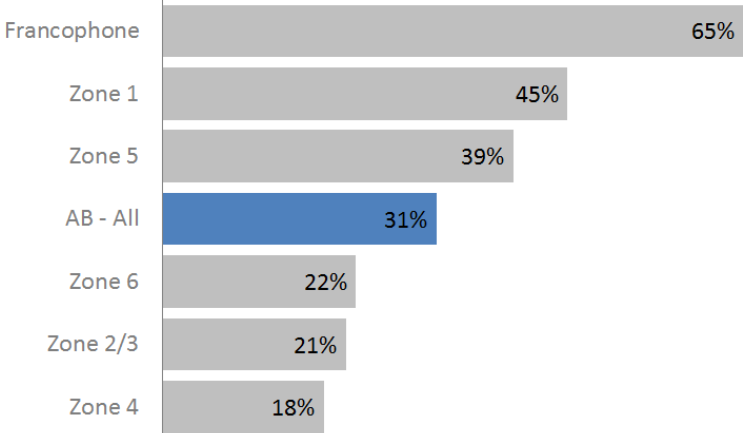
⁹ "Leaving the education system" means the teacher is no longer actively employed with a school jurisdiction in Alberta and has not been for five full years.

Out-of-Province Hires

While approximately 2,000 new teachers graduate from teacher preparation institutions in Alberta each year, only approximately 1,500 of them become teachers in Alberta schools. There are many reasons why approximately 500 new graduates do not go into teaching, including personal suitability, lack of willingness to move to a new community, further education, a job in another province or country or a change in career.

As such, the number of Alberta graduates hired in Alberta falls short of the 2,200 new hires that are required each year to meet on-going demand. As a result, many school jurisdictions recruit teachers from other provinces and countries (Figure 12). The need to hire from out-of-province/out-of-country is expected to increase in the coming years as the demand for teachers exceeds the available supply.

Figure 12: School Authority Out-of-Province Hires by Governance Zone (2007/2008 to 2011/2012)



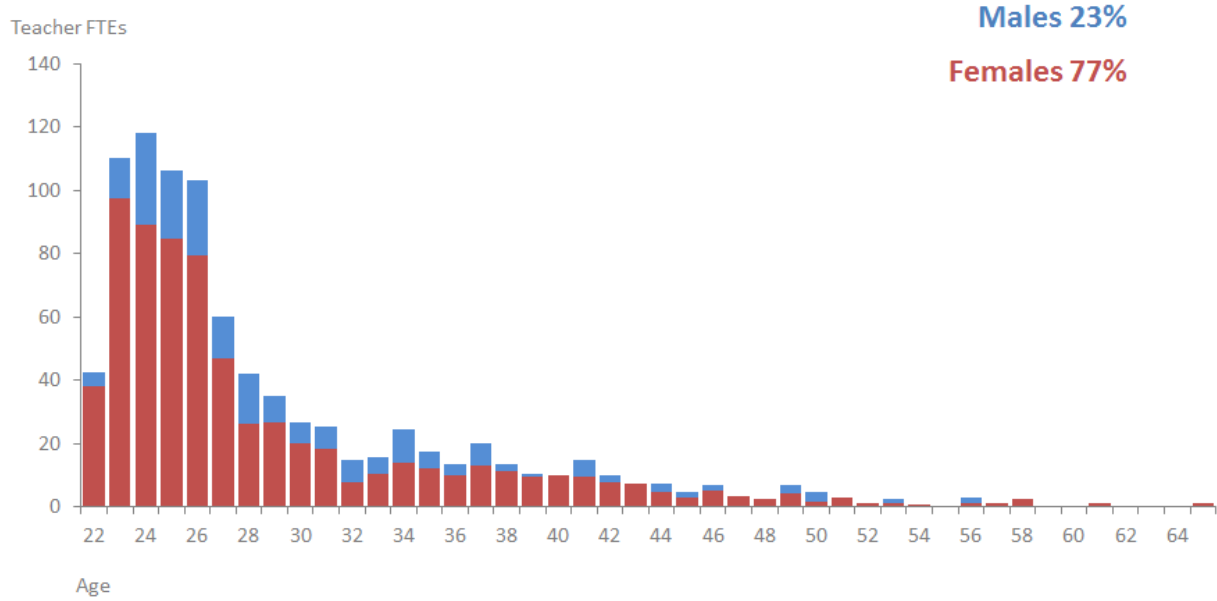
Note: Percentages are averages.

Source: Alberta Education, Workforce Planning Datamart (Fall 2011/12)

Age and Gender of New Hires in Alberta

Historically, more women than men have been attracted to careers in education, and this trend shows no sign of changing. Currently, approximately 80% of students in Alberta's teacher preparation programs are female and 77% of new hires in 2011/2012 were women (Figure 13).

Figure 13: New Hire Ages and Gender Distribution of Alberta's K-12 Education Workforce (2011/2012)



Source: Alberta Education, Workforce Planning Datamart (Fall 2011/12)

Teacher Demand

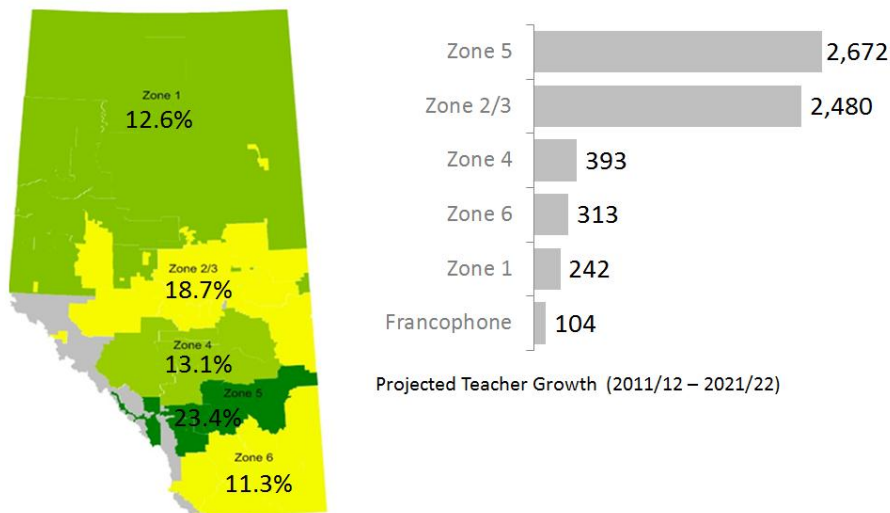
The demand for teachers remains strong in Alberta and data indicates an increasing need for more teachers over the next ten years. The challenge will be to promote career opportunities in northern and rural communities as competition for teaching positions in Alberta's urban areas is high.

As a result, graduates who wish to work as teachers need to be open to the possibility of moving to smaller, rural or northern communities and/or consider study in high demand subject specialties such as second languages, mathematics, sciences, First Nations, Métis and Inuit education, special education and Career and Technology Studies.

In addition to the high demand in rural and northern communities, the ten-year demand for teachers in urban areas is also very promising for new graduates. Figure 14 showcases the number of educators (in addition to the ones already in the system), required by each Zone over the next ten years.

Some teacher preparation graduates indicate difficulty finding employment in urban centres, and there are a number of different reasons why graduates may not be able to get a job in a certain area. These reasons include that the candidate may not have the skill set the employing school authority is looking for, or that competition for employment is very high.

Figure 14: Alberta's Forecasted Education Workforce Growth by Governance Zone (2011/2012 to 2021/2022)



Source: Alberta Education, Student Population Projection and Teacher Forecasting Model (2012)

Total Hiring Patterns in Alberta

Current hiring assumptions are based on making a distinction between “hires” and “new hires.” Hires include all the certificated staff who are new to the K-12 education system and those who are returning from a leave of absence. A “new hire” is someone who has never worked in Alberta’s school system as an educator. Each year, Alberta relies on school authorities offering employment to both new hires and returning staff to meet the needs of Alberta students. Table 3 shows the increasing demand for hiring new and returning teachers in the province.

Figure 15: Alberta’s Forecasted Hiring Demand by Governance Zone (2010/2011 to 2020/2021)

Zone	Percent Increase	2011 Hires	2021 Hires
Zone 5	112%	967	2,046
Francophone	40%	84	118
All Alberta	38%	4,052	5577
Zone 6	36%	256	349
Zone 4	20%	351	421
Zone 1	15%	316	365
Zone 2/3	12%	1,883	2115

Source: Alberta Education, Student Population Projection and Teacher Forecasting Model (2012)

Conclusion

There are many factors and variables that contribute to Alberta's current K-12 education workforce and student population demographics including birth rates, in-migration and immigration. As the population of Alberta continues to grow, so does the student population. Alberta's student population is diverse, with important variations in demographics across the province.

All these factors influence the requirements of the education system to address student needs, workforce supports and potential changes to budgets and facilities. As the student population continues to change and grow, the education sector's capacity to anticipate trends and consider data when making decisions becomes increasingly important.

In collaboration with education stakeholders, Alberta Education is continuing to explore opportunities to support the best quality education possible for Alberta's students by addressing upcoming challenges in the K-12 education workforce. A number of the initiatives that support this work are articulated in Appendix A.

References

Alberta Education.

2012, *2011-2012 Annual Report*. Retrieved from:

<http://education.alberta.ca/departement/annualreport/2011-2012.aspx>

2012, Student Population Projection and Teacher Forecasting Model v 2.00.

Alberta Treasury Board and Finance.

2013, *Alberta Economy Indicators at a Glance*, January 4, 2013. Retrieved from:

www.finance.alberta.ca/aboutalberta/archive-alberta-at-a-glance.html

2012, *Quarterly Population Report*, Third Quarter 2012. Retrieved from:

www.finance.alberta.ca/aboutalberta/demographic_quarterlies.html

2012, *Alberta Population Projection 2012-2041*. Retrieved from:

www.finance.alberta.ca/aboutalberta/population_reports/2012-2041-alberta-population-projections.pdf

Statistics Canada. 2007. 2006 Community Profiles. 2006 Census. Statistics Canada Catalogue no. 92-591-XWE. Retrieved from:

<http://www12.statcan.ca/english/census06/data/profiles/community/index.cfm?Lang=E>

Appendix A: Targeted Strategies to Attract, Develop, Engage, Sustain and Inform the K-12 Education Workforce

The creation of the [*Education Sector Workforce Planning Framework for Action*](#) resulted in a variety of collaborative projects and initiatives to address the attraction, development, engagement, sustention and information concerns in the K-12 education workforce.

The strategies below become even more relevant when regarding strategic priorities such as:

- [Literacy](#)
- [English as a Second Language \(ESL\)](#)
- [Inclusive Education](#)
- [Early Childhood Services](#)
- [First Nations, Métis and Inuit \(FNMI\) Education](#)
- [High School Completion](#)
- [Career and Technology Studies \(CTS\)](#)

These strategic priorities have been articulated as key areas of focus for Alberta's education system, and are best supported when highly qualified, innovative and student-centered teachers are attracted to the profession.

More information regarding several of these initiatives can be found at <http://www.education.alberta.ca/admin/workforce.aspx>

Bridging Foreign-Prepared Teachers to Certification

In recent years, Alberta has experienced an increase in the number of foreign-prepared teachers seeking employment. This project serves to provide foreign-prepared teachers with the knowledge and skills needed to be successful in Alberta schools.

Career and Technology Studies Bridge to Teacher Certification Program

There is an increasing need to increase the number of qualified Career and Technology Studies (CTS) teachers in Alberta. This project strives to achieve this by providing a CTS bridging program for journeymen practitioners who wish to become teachers. This program will enable participants to be authorized to work in schools under a Letter of Authority while continuing studies toward completion of a Bachelor of Education.

Changes to the Teacher Pension Act

In recognition of teacher shortages, particularly in rural and remote Alberta, Education set out to remove the barriers to employment for teachers who have retired from teaching but would like to work throughout the year as a substitute teacher. The change to the *Teacher Pension Act* allows teachers who have retired from teaching the opportunity to teach as a day-to-day substitute teacher without penalty to his or her pension.

<http://www.atrf.com/downloads/documentloader.aspx?id=17702>

http://www.atrf.com/pensioners_about_your_plan/employment_after_pension.aspx

Community-Based Teacher Education Program

The Community-Based Teacher Education program was designed to attract teachers who are First Nations, Métis or Inuit (FNMI) and/or who have experience working with FNMI students in northern Alberta schools. This initiative provides financial support to over 30 education paraprofessionals to study towards their Bachelor of Education degree while remaining in their communities and pursuing their life-long dreams of becoming teachers. The majority of participants will be graduating in the spring of 2013.

<http://www.youtube.com/playlist?list=PLF45CEDD1CE91FFE2>

Career and Technology Studies Teacher Preparation Program, Teacher Training to Attain an Apprenticeship Board Recognized Credential

To ensure that Alberta's education system has the right people with the right skills, Education is supporting a program that is designed to provide existing CTS teachers with an opportunity to attain the additional training necessary to teach advanced dual credit CTS courses.

Effective Online Learning for Teachers

Learning is no longer a “sit-and-get” activity. With advances in technology, learning can occur at any time, in any place and at any place. Working with researchers from the University of Alberta, Alberta Education is developing a framework to support the effective delivery of online learning for teachers.

Early Career Attrition in Alberta's K-12 Education Workforce

In an effort to understand and address the phenomenon of early career attrition in Alberta's education sector workforce, Alberta Education collaborated with researchers from the University of Alberta to develop a better understanding of the causes for early career attrition in teachers. The research will be instrumental in developing strategies to improve Alberta's teacher retention rate and is informing the development of a provincial policy for teacher induction.

<http://www.elementaryed.ualberta.ca/en/Centres/CRTED/CRTEDResources.aspx>

http://www.elementaryed.ualberta.ca/en/Centres/CRTED/~media/elementaryed/Documents/Centres/CRTED/ECA - FINAL_Report.pdf

First Nations, Métis and Inuit Teacher Capacity Project

The First Nations, Métis and Inuit (FNMI) population in Alberta is diverse. Each community is unique in culture and composition. This project is designed to increase the capacity of teachers to meet the needs of FNMI learners within the local community by supporting the acquisition of teacher knowledge and skills necessary for FNMI student success.

First Nations, Métis and Inuit Course Development

To meet the increased need for teachers to understand the learning needs of First Nations, Métis and Inuit (FNMI) students and their communities, Alberta Education in collaboration with Athabasca University developed a professional learning opportunity accessible to all teachers in the province utilizing online course delivery. This course is designed to increase the capacity of teachers to meet the needs of FNMI learners through the development of a graduate level course called “Working with Indigenous Students.”

Inspiring Educators

Currently there is no formal strategy to promote the teaching profession in Alberta. The Inspiring Educators project will lead to the development of a distinct web-presence and will position Alberta as the best place in Canada to have a teaching career. It will be a central location for information on teaching and jobs in education in Alberta. The website will be developed in partnership with education stakeholders.

Informing Albertans and the K-12 Education Workforce

All across Alberta, educators are engaged in exciting and important work. In an effort to leverage the learning, Alberta Education will share the rich stories of success and provide tools and data to strategic planners, superintendents, school board chairs and other interested parties to engage in meaningful dialogue that leads to data-informed decision making.

Measuring the Impact of Professional Learning on Teacher Practice

Working with the Alberta Regional Professional Development Consortia and the Alberta Teachers’ Association, Alberta Education is developing a tool kit to support teachers in measuring the impact of professional learning on their teaching practice.

<http://www.teachers.ab.ca/Publications/ATA%20News/Volume-45-2010-11/Number15/Pages/Alberta-Education-supports-study-on-teacher-PD.aspx>

Northern Student Teacher Bursary

Alberta Education collaborated with education stakeholders and the Northern Alberta Development Council to establish the Northern Student Teacher Bursary, a program designed to attract and retain teachers for northern Alberta. The bursary program provides financial incentives to student teachers who agree to live and work in a northern community for three or four years upon graduation depending on the level of funding they receive from the bursary. The program has awarded over 90 bursaries of up to \$16,000 to student teachers from across Alberta studying toward their Bachelor of Education degree with a specialty.

Over 80% of graduated recipients have found employment in a participating northern Alberta school authority.

<http://www.benorth.ca/teacher-education.asp>

Online Mentorship Course: Athabasca University

Research has shown that when teachers who are beginning their careers are engaged in specially designed induction programs, they experience greater success, both personally and professionally. A key component of induction programming is mentorship. Education has contracted with Athabasca University to design a graduate level course on mentorship specifically designed to support the professional learning needs of teacher mentors.

Professional Growth Planning Tool

Alberta Education is collaborating with the Alberta Teachers' Association to develop an online teacher self-assessment tool. The tool will enable educators to conduct an online self-assessment of his or her professional practice and develop professional growth plans, both of which will be aligned with the *Teaching Quality Standard*. The tool will also provide educators and Alberta Education with data related to self-assessed measures of practice at school authority and provincial levels. The online professional growth planning tool is expected to be operational and available to educators by 2015.

Provincial Competency Practice Guidelines for Education Assistants

The K-12 education workforce consists of more than just teachers. Education assistants, for example, contribute significantly to learning of Alberta students. Without clear competency practice guidelines, Education assistants lack a structure upon which to base their practice. Working collaboratively with stakeholders, Alberta Education will lead the development of *Competency Practice Guidelines for Education Assistants*.

Provincial Induction Program and Policy

In an effort to curb beginning teacher attrition rates in northern Alberta, Education has implemented pilot programs to implement teacher induction programs in eleven school authorities. The results of this program, collaboration with education stakeholders and research from various organizations is informing the development of a provincial policy for teacher induction.

<http://www.youtube.com/playlist?list=PL43CBE121BCE40632>

Provincial Policy on Professional Learning

This initiative will result in a provincial policy that supports a coordinated approach to professional learning in Alberta. The policy will encourage and support collaboration with stakeholders and professional development providers to maximize resources and opportunities for professional learning in Alberta. The policy is designed to support the coordination of supports and services, as they relate to professional learning, to enable high quality, strategically focused and sustainable implementation of curriculum, policy and initiatives.

Rural Practicum Program

The Rural Practicum Program is designed to attract teachers to rural Alberta, and provides financial support to Alberta student teachers who take their final practicum term in a rural school authority in Alberta to help cover the costs of accommodation, moving and transportation.

<http://www.youtube.com/watch?v=uKXIhteB8Iq>

School Leadership Framework

To attract, develop and sustain high quality leaders into principal positions, Alberta Education will develop and implement a provincial school leadership framework. This framework will articulate the knowledge and skills required of school leaders to advance the practice of instructional leadership in Alberta's schools.

<http://www.education.alberta.ca/media/2266441/thealbertaschoolleadershipframework.pdf>

Student Population and Teacher Workforce Forecasting

This project is multi-faceted and is designed to tell the K-12 education workforce story through the use of enhanced data elements. This project will strengthen the education sector's ability to use workforce data analysis to inform teacher attraction, engagement and staff sustention and improve current data collection practices by establishing a streamlined process for workforce data collection, transmission, storage and reporting. This project will also improve the Ministry's ability to respond to internal and external data requests that relate specifically to the K-12 education workforce. Work is in progress to develop a browser-based application that will display the data from the *Student Population Project and Teacher Forecasting Model*, and will be accessible online to superintendents and the public. The current version of the Model is distributed annually to Alberta superintendents following data updates.

Teacher Currency Requirement

This project was designed to inform those persons who hold a teaching certificate in Alberta of the new currency requirements. Alberta Education has instituted a requirement to ensure that applicants for Alberta certification meet currency qualifications prior to entering the classroom.

An applicant for interim certification must provide evidence of acceptable teaching experience, or equivalent that includes responsibility for the planning, delivery and evaluation of an instructional program with curriculum aligned with Alberta's education system.

Applicants must have completed teaching experience within the past ten years which includes a minimum of either:

- 75 days of teaching experience in one academic year, or
- 100 days of teaching experience over two consecutive academic years.

If no paid teaching experience has been completed, a minimum of ten weeks of supervised student teaching within the initial teacher preparation program must have been completed within the last ten years to be considered current.

A Transformation in Progress

ALBERTA'S K-12 EDUCATION WORKFORCE 2012/2013

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