FURURE FORCE

BY KERRY TREMBLAY

Alberta's construction workforce is getting older and construction is booming. This has a multitude of organizations acting to build upon and preserve Alberta's skilled worker pool.





ike death and taxes, the challenges

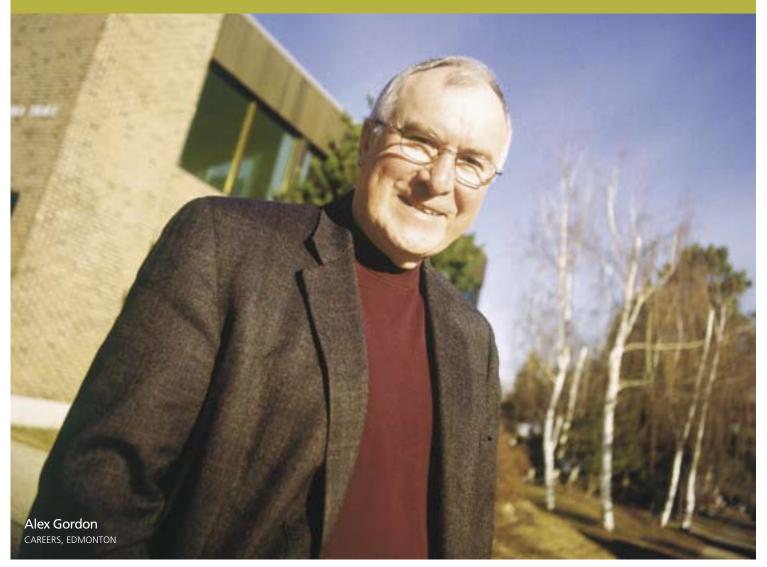
to finding and keeping workers in a booming economy are predestined. The shortage of plumbers, pipefitters, carpenters, sheet metal workers, electricians and every skill in between is driving industry and government to rethink where employees will come from to fill the current and future needs of Alberta's thriving construction industry.

"Quality, skilled employees are hard to find," says Graeme Proudfoot, Merit Contractors Association's special project co-ordinator in Calgary. He says the problem is already real for the 1,000 employers that participated in Merit's latest semi-annual salary survey: one-third to one half of contractors indicated they are having difficulties finding skilled people. While Alberta employers can't do much about the certainty of taxes and chilly winter nights, there are some traditional and non-traditional ways afoot for tackling the predicted – and some would say chronic – shortages.

Industry, communities and government are pulling together to create solutions. There is a backdrop of issues affecting virtually all Alberta workplaces, not just those in construction. The population in Canada and in other developed countries is aging. Economic growth in British Columbia (partly due to the Olympics) and growth in Atlantic Canada impacts worker movement from region to region.

As well, there is a widely-held view that the trades aren't desirable career choices. Much of Alberta's workforce developed as young people migrated from other provinces and through immigration.

Non-traditional resources within the province - youth, women and aboriginals - have remained relatively untapped. The Petroleum Human Resources Council of Canada completed a study examining human resources needs of the upstream petroleum industry over the next 10 years. It identified the three clusters as accessible supply sources. The report outlines systemic barriers that need to be addressed before significant numbers of the people can be trained, hired and retained. These barriers include the lack of mentors and role models, a paucity of information on available careers, perceptions that the work is too physically intensive and a lack of the





required academic courses in math and science. For immigrants, the issues become even more complex, with the addition of language skills and Canadian work culture expectations.

Help abounds. According to the Canada West Foundation, a massive number of organizations are working in the mix. "At both the provincial and federal levels, governments in western Canada currently provide some 300 programs and services related to training and skills provisions," it says. Many groups don't depend on government funding, but look for support from specific organizations and individuals or industry. While insiders agree, even with the huge number of associations working with women, immigrants, aboriginals and youth (both in and out of school), there is a spirit of co-operation that helps solve territorial issues amicably. "We all have the best intentions," says Janet Riopel, president of CAREERS, The Next Generation. "While

there's always the danger of duplication or overlap, we encourage and work hard toward partnerships and strategic alliances with associations, communities and industries."

The economics of growth

According to Bill Stewart, a committee member on the Alberta Construction Workforce Supply/Demand Forecasting Committee, under the auspices of the Construction Owners' Association of Alberta (COAA), there is \$79.9 billion-plus of major commercial, industrial and government projects slated for development between 2004 and 2008. COAA's forecast suggests Alberta's 100,000plus skilled trade workforce will need 21,000 additional workers in 2006, which is expected to trail off in 2008 to 12,500 workers. Those numbers are likely to shift upward as additional workers in 2006, which is expectnew projects - many already in the planning and/or financing stages - come into play. More than 800 projects are slated over the next four years. And those numbers don't



Fits Perfectly

THE DAY HER DAD PUT A WRENCH IN her hand at age 10 or 11, she was hooked on mechanics. She just didn't realize becoming a mechanic was going to be a life's calling until Grade 12. Nicole Popko loves her new, non-typical job as an apprentice heavy-duty technician, working on vehicles like backhoes, graders and other big equipment for the City of Calgary.

She started the position as a followthrough from her grade 12 mechanics class, when her teacher suggested that she apply for the apprentice position. Before that, she hadn't even dreamed of being a heavy-duty mechanic.

"I love it. It suits me perfectly," says the rugby-playing 18-year old. "I love always being busy. I think I learn faster with handson, rather than with a book."

Popko likes working in the mostly male

environment. Her small size, at 5'3", is an advantage, she says. It means she can sit on an engine to work on it, rather than stand on a ladder like her huskier fellow workers do. And while she occasionally has to ask for a little help on the brawn side when something needs a little extra weight, she balances the equation with helping the guys by, for example, being small enough to get into an awkward space. "The guys I work with are amazing," says the young apprentice. "They treat me with as much respect as I give them." Popko is a Registered Apprentice Program participant, heading to the Southern Alberta Institute of Technology in March for two months as part of her apprenticeship training. She graduated from William Aberhart High School in Calgary, with a grade 12 diploma, in 2004.



"The guys I work with are amazing. They treat me with as much respect as I give them." count other sectors of the economy where skilled workers are required, like in the oil and gas and petrochemical industries, residential construction or renovations and repair. Just about every trade, from welding to plumbing and carpentry, will be in short supply at some point in the construction cycle.

Migration and immigration have unexpected dynamics

Gone are the days when skilled workers came to Alberta from other provinces to fill the gap. B.C.'s economy is booming, so fewer workers are willing to leave their home province. "There is a real concern that some of the workers that came to Alberta will return to B.C.," says Scot Rutherford, president of Scott Builders Inc. While he can still recruit from Atlantic Canada because of Alberta's higher wages and lower tax regime, the Atlantic provinces are starting to sizzle with increased offshore oil and gas development. So, competition for the labour pool with other parts of Canada has reduced the number of skilled workers migrating to Alberta. This trend is expected to continue. Furthermore, as the workforce ages, workers want to stay closer to home. If there's work in the home province, chances are they will not be heading to Alberta.

Immigration is not going to solve the shortage of skilled construction workers any time soon. Few people are coming to Canada from Europe, the traditional source of skilled workers for Canada.

CANADA'S CORE WORKFORCE IS OLDER THAN ALL OTHER G-8 COUNTRIES IN THE WORLD, EXCEPT GERMANY AND JAPAN.

In fact, statistics from Citizenship and Immigration Canada (CIC) reveal the top two countries of origin for new Canadians are India and China. And rather than workers experienced with their hands, in 2002, 57% of the 53,000 skilled immigrants arriving in Canada had bachelor's degrees. Only 3% (1,591 people) had trade certificates, and only a small percentage of those came to Alberta.

"Canada is probably the best in the world (for funding new immigrants to get established)," says Daniel Hirschkorn, manager of Business Employment and Training Services Division of the Calgary Catholic Immigration Society. "Federal and provincial funding could (always) be better, but it is good." He lists programs like language training and pre-employment training and skills upgrades.

Some government programs pay living expenses for a family while the parent/breadwinner hones skills at the Southern Alberta Institute of Technology or Northern Alberta Institute of Technology. In his experience, the CIC statistics tell the tale,

"About 60% of the 2,000 to 2,500 people that come through the Society's doors annually looking for work have post-secondary education," Hirschkorn says. "In fact, in the last 12 months, more than 600 engineers have come to the Society," he notes. "While those immigrants can't usually get jobs as professional engineers without significant upgrading, they can take their skills and translate them into a related skill like electrician from an electrical engineering degree."

An aging population adds wrinkles

To add a wrinkle to the lack of migration within the country, Statistics Canada reports Canadians are getting older. The median age - where exactly one half of the population is older and the other half younger - has risen to 37.6 years. Canada's core workforce is older than all other G-8 countries in the world, except Germany and Japan. Even with an immigration of close to 225,000 people a year, the median age continues to rise. Alberta has the youngest median age of the provinces, at 35 years, followed by Saskatchewan and Manitoba. However, in the territories - Northwest Territories and Nunavut - the numbers were lower yet, at 30.1 and 22.1 years respectively. Generally, Alberta's eastern neighbours' and the North's relatively low median age rankings are directly related to the high number of young people of aboriginal ancestry. To add another dimension to the picture, the group with the highest propensity to move

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THE ORGANIZATION CONNECTS WITH EMPLOYERS TO HIRE STUDENTS DURING THE SUMMER MONTHS TO EXPERIENCE THE WORK.

far from the home province or town are between the ages of 15 and 29. Besides being disinclined to move far from home, older workers do not want to be working outside in the cold. These workers would rather participate in the industry by looking for maintenance work and not leaving home for long periods of time.

Women are changing the face of the workforce

Women make up 46% of the labour force in Canada, but the number of women in the transportation, trades and construction fields remains low at 7%. Women make up less than 3% of the construction trade workforce in Alberta. A unique Edmonton non-profit group called Women Building Futures (WBF) is adding women to the construction trades one step at a time, one woman at a time. Executive director JudyLynn Archer says the WBF emerged after a group of social workers in Edmonton met together to find ways to help women on their case lists. In general, these were underemployed single mothers juggling jobs and children, trying to make ends meet.

"Our commitment is to help women get out of poverty and we do that by preparing women for jobs in Alberta's construction industry." That means, Archer explains, a large part of the group's job is to ensure that women fit into the workforce as it now stands, rather than trying to change the work climate to be more accepting of perceived female issues such as childcare. In three years, the WBF has graduated more than 200 women from its pre-apprenticeship program and placed them into apprenticeship positions in an assortment of industries.

It's a tough program to get into – with over 800 applicants last year only 60 were accepted into the 14-week program. The course involves hands-on skills training, academic upgrading, workplace culture preparation and safety skills. However, WBF doesn't turn those not accepted away. Since many applicants are fleeing abusive family situations or are in desperate financial need, the WBF tries to match up the applicant with the appropriate social services to help them along the road to better employ-

ment. The group is funded through industry sponsorship, corporate and private donations, fee-for-service contracts, government funding and foundation grants.

In late 2004, it kicked off a spin-off business called Fixit Chicks Inc., which runs classes for women on how to fix everything from plumbing problems to electrical shorts to how to tackle building decks. Proceeds from Fixit Chicks Inc. projects are put back into the society to help other low-income women into the training program.

Dynamics of encouraging youth

"Youth is a significant part of the future work force of Alberta," says Merit's Proudfoot. The association puts significant time and energy into recruiting youth to become apprentices and eventually journeymen. But that means convincing the parents and young people in junior and senior high school that trades are a good career choice. According to the Canada West Foundation report "Toward a Bright Future": "There are many factors contributing to the skills shortages in the trades including a cultural bias that has dissuaded young adults from pursuing careers in the trades. The perceptions are that trade occupations are low skill, low paying, dangerous and 'second-tier' in terms of social prestige."

Proudfoot explains one of the bigger challenges today is not just firing up the imaginations and enthusiasm of young people, but getting parents to understand that construction is a viable, well-paid job with a promising future for dedicated workers. While numerous parents want their children to proceed to university, rather than go into the trades, he says that one doesn't preclude the other. A young person can always go through a four-year apprenticeship and become a journeyman and pursue a postsecondary education later. In fact, some universities in Canada are now accepting certified journeymen into Masters of Business Administration Programs, without an undergraduate degree.

Likely the most significant group to work with youth in Alberta is CAREERS, The Next Generation. It is a leader in building partnerships that encourage youth to explore career opportunities. The mandate is to "Get the



The Stuff of Dreams

BRENDA PORTEOUS IS LIVING PROOF OF her belief that people should always have dreams, and they should go out and find a way to follow them. At 40, she's living hers as a first year carpentry apprentice at Scott Builders Inc. in Edmonton.

She's on a fascinating journey to a challenging, enjoyable and lucrative career in the construction world. Porteous is one of a handful of women on site. In just over three years, she'll be a full journeyman. But right now, she's working hard, learning lots from her two carpenter mentors and loving it. It's a long way from being a single mom with two small kids who juggled numerous low-paying jobs to pay the rent and buy groceries.

Working in construction is a dream she's reawakened from her youth. As a teenager, she would look at construction workers and dream about being one of them. But girls didn't do that, back then. As she watched, she noticed that there were no women on the teams of workers, and virtually no aboriginals.

As an adult, she worked in unskilled positions at minimum wage. The lack of opportunity motivated her to seek a way to get into the construction industry with some marketable skills. She liked the way the labourers worked as a team. She liked the physical part of the job. She liked the idea of working with her hands. "I could do all of those things," Porteous thought.

It all started when she saw an ad in a community paper for Women Building Futures (WBF). After a year-long struggle with herself, she decided to go to an information meeting held by the Edmonton society. With funding help from the Metis Nation of Alberta, Porteous was accepted by WBF into the pre-careers program. On graduation, WBF helped her find a place to begin her career. Now, with most of the first year's apprenticeship behind her, Porteous is confident of the role women can play in Alberta's construction industry. Porteous is now a proud member of the WBF board, working to ensure other women like her can find a similar promising future.



Porteous is confident of the role women can play in Alberta's construction industry.

ALBERTA HAS ONLY 10% OF CANADA'S POPULATION YET IT TRAINS 20% OF THE COUNTRY'S APPRENTICES. kids engaged early in exploring career areas of interest, so that they can link their classroom education with their future careers, and ultimately meet industry's skilled workforce earlier," CAREERS president Riopel says. She adds young people need to understand the importance of taking the right courses, completing high school and becoming aware of the opportunities that exist in their own communities. The CAREERS field team tells kids the real story about what it means to be in trades, the many valuable and rewarding jobs and how to combine school and work. In 2004, the organization worked with 306 high schools in 204 communities across the province.

After initial work with teachers and students, parent information sessions discuss potential careers more fully. The organization connects with employers to hire students during the summer months to experience the work. Students wanting to work within the program join the Registered Apprenticeship Program (RAP). In 2004, 1,409 young people were working with nearly 900 different employers across the province. Since its inception in 1997, more than 130,000 young people have participated in awareness and exploration workshops. Merit liaises with CAREERS and other groups to encourage young people to enter the trades in a variety of ways, from advocacy, education and to finding summer jobs for high school students in the RAP program.

An aboriginal view

Aboriginals are the youngest and fastest growing sector of the population on the prairies, and identified as an asset that can be

tapped to supply the labour pool. Alex Gordon has worked with aboriginal peoples for more than 20 years. He and three others are field contractors for CAREERS. In four years, the team has worked with junior and senior high schools – even elementary schools – the parents and employers in more than 30 communities. There is a great deal of interest both on and off reserves for the RAP program and the potential for good careers, Gordon says. The big message the team brings to the youth is: "In order to make it, you need to stay in school. The doors will not open to employment if you don't complete it (attain a high school diploma)."

He says that CAREERS' emphasis on working within the community and local companies is more appealing to natives in isolated communities. Many do not want to leave their home areas to find work. With a culture of consultation and extended family, it is difficult for young aboriginals to move to urban areas and seek work. The current programs encourage dedication at school and earning while learning.

Alberta's apprentice system

With Alberta's demand for highly-skilled workers, there has to be a way to ensure that apprentices of today become the respected journeymen of tomorrow. Through the Apprenticeship and Industry Training Board, workers register formally as apprentices, then work for three or four years, depending on the trade, under certified journeymen. After a set number of hours on the job, the apprentices must return to school six to 12 weeks out of each year to receive instruction in that particular skill. "We don't want to water down the quality (of the workers)," says Bob Genee, a six-year veteran on the Board, a certified journeyman carpenter and the district manager for Coram Construction in Calgary. "That's why there is formal training, written exams and a process that needs to be followed to become a registered journeyman in a given trade." It's also why there is so much emphasis, backed by both government and industry, on training, scholarships and raising the awareness of both kids and their parents on the opportunities available in the trades.

"I'd say the system is responsive," says Genee. The system is industry-driven,



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Freedom of Choice

AT 18, JONATHON CROFT IS WELL ON his way to becoming a journeyman electrician. He's just about finished his second year as an apprentice electrician, but he's done it with a difference. Most of the hours necessary were racked up while he was still a high school student at Bowness High School in Calgary. His high school years were split between school, working his part-time job flipping burgers, and participating in the Registered Apprenticeship Program for high school students. While still in high school, he also completed mandatory technical training for the trade at the Southern Alberta Institute of Technology and took two semesters off to work under the RAP program.

He's a busy teen. He graduated from high school with a B-plus average and 140 credits, almost 1.5 times the number he needed to graduate. And he's back to SAIT this spring to finish the second of four, two-month stints apprentice electricians are required to put in. Right now, he's employed by Allied Projects working on condos in downtown Calgary. It's a change from the mostly-industrial electrical work he has been doing since begin-

through a series of local and provincial advisory committees that discuss and hammer out changes that need to be implemented. That means the will to change something within the apprenticeship courses offered at SAIT, NAIT and the other colleges offering applied technical training, must come from a particular sector in industry and from the colleges.

He says that although Alberta has only 10% of Canada's population, it trains 20% of the country's apprentices. And according to the statistics in the board's 2003-2004 annual report, the numbers are growing. There are approximately 40,000 registered apprentices in Alberta, up 30% since 1998. Approximately 5,100 apprentices completed their certification in 2003. Most new apprentices are between the ages

"This will give me the freedom to do what I want, and a fallback if something else doesn't work."

ning the RAP program at the end of Grade 10. While he's finding the first few weeks on the new job challenging because the work is so different – he's up to it. "The (different) experience is good," Croft says. "It's good to have knowledge of everything." The future is bright and full of possibilities.

"I'll have my journeyman's certificate at 20 or 21," he says. "And then I might use electricity as a fallback and go on to university after I'm finished, possibly to study psychology or criminal studies," Croft explains. "I want to travel, too – to the East Coast and maybe to Europe," he adds. "This will give me the freedom to do what I want, and a fallback if something else doesn't work." Right now, though, the focus is work, and catching the bus at 5 a.m. to be at work on time.

of 17 and 25, while the average age for employed tradespeople is 41 years.

The long and the short of it

Staffing of Alberta's construction industry with good, qualified people is an on-going process. In the short term, there are trained workers to recruit from other parts of Canada and the world, if they want to leave their roots and come to this province. There are also many women who, with some skills upgrading and training on how to thrive in the currently male-dominated construction world, are eager to become apprentices and later, journeymen. And longer-term, there are the youth, who are being encouraged to stay in school and take the courses they will need to thrive in a 21st century Alberta work world.



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