

# Women in **Non-Traditional** Occupations

Stories to Inspire



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# Women in Non-traditional Occupations

## Stories to Inspire

### Career Practitioners

This publication is for women who are developing their first career plans and for working women who are thinking about changing their careers. It positions non-traditional occupations—occupations in which women constitute less than a third of the workforce—as a rewarding career choice that some women might wish to consider.

*Women in Non-traditional Occupations* presents the stories of seven Alberta women who work in non-traditional professions, trades and industries. The stories are based on interviews conducted during the fall of 2008. Direct quotations have been edited for length and clarity.

Inside you'll find

- information on the rewards and challenges of working in a non-traditional occupation
- myths and realities related to non-traditional work
- practical advice from women who work in non-traditional careers
- tips on how to plan a non-traditional career
- helpful resources by topic

The following advisory committee members provided their expertise during the development of this publication:

- Darlene Dudley, entrepreneur and author
- Wendy Joy, Senior Policy Advisor, Women's Issues, Alberta Children and Youth Services
- Gail Powley, P.Eng., Vice-Chair, WISEST (Women in Scholarship, Engineering, Science & Technology)
- Wanda Wetterberg, Chief Operating Officer, Women Building Futures

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Alberta Employment and Immigration  
Career and Workplace Resources  
Telephone: 780-422-1794  
Fax: 780-422-5319  
Email: [info@alis.gov.ab.ca](mailto:info@alis.gov.ab.ca)

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Information in this publication was accurate, to the best of our knowledge, at the time of printing. However, legislation, labour market information, websites and programs are subject to change, and we encourage you to confirm with additional sources of information when making career, education, employment and business decisions.

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## **Are you thinking about a career in a non-traditional occupation?**

*Women in Non-traditional Occupations: Stories to Inspire* brings you the stories of seven Alberta women who work in areas often considered non-traditional for women. From science and engineering to technology and the trades, from entrepreneurship to leadership to law enforcement, these women have found their careers to be hugely rewarding. They've faced and overcome all sorts of challenges along the way. And they want you to know what they've discovered: that non-traditional occupations can offer a route to a secure and fulfilling future.

So let these women's stories inspire you.

Whether you're choosing a career for the first time or considering a career change, a non-traditional career path can be just the thing for you. It can help you balance work and family life, keep learning and growing as long as you wish, and contribute to your community in ways you might not even imagine.

Read on to find out how.

# Setting the Stage

## What is a non-traditional occupation?

Any occupation that generally employs far fewer women than men can be described as a non-traditional choice for women. Researchers generally accept the 30 per cent mark as the cut-off: *if less than a third of workers in an occupation are women, it's officially non-traditional.*

Many such non-traditional occupations fall into categories such as engineering, science, technology, the trades, construction, university-level academics, entrepreneurship, logistics and aviation.

The situation in many of these sectors is changing, however. Statistics Canada reports that in the construction industry, for example, the number of Alberta women employed rose 126 per cent between 1997 and 2007.<sup>1</sup> (That still leaves significant room for further growth, however: according to the Construction Owners Association of Alberta, less than five per cent of the province's construction workforce is female.)<sup>2</sup> Women have also made significant employment gains in the professional, scientific and technical services industry over the last decade.<sup>3</sup> Gains have also been made in the academic field. In 1976, only one in seven full-time faculty members were women. By 2006, that number was one in three. However, some of that growth was uneven. Between 2003 and 2005, while women were appointed to well over half of new positions in the social sciences and 40 per cent of the new jobs in agricultural and biological sciences, they filled only about 20 per cent of the new jobs in engineering, mathematics and the physical sciences.<sup>4</sup>

### Did you know?

In 2007, 68 per cent of Alberta women were employed in the labour force.<sup>7</sup>

## Why consider a non-traditional career?

There are many good reasons—and they're all about securing your future.

1. **You can earn more.** Many non-traditional industries—including construction, forestry, fishing, mining and oil—pay better than more traditional occupations.
2. **It's where the jobs are.** As the Alberta economy continues to change, employers continue to hire women to meet their labour force needs.
3. **The benefits are good.** Depending on the occupation and the industry, many non-traditional jobs come with benefit packages, opportunities for job promotions and free or subsidized education.

Choosing a non-traditional occupation is an opportunity to embrace responsibility for yourself and your family—to provide financially, take charge of your career path, create a role model for your children and, if need be, serve as your family's sole support.

## A look at the numbers

In 2007, Alberta women made up the following percentages of the workforce in non-traditional occupations:<sup>5</sup>

- 8 per cent of trades, transportation and equipment operators
- 22 per cent of natural and applied science workers
- 26 per cent of employees in processing, manufacturing and utilities
- 33 per cent of managers

The fact that fewer women than men are employed in higher paying non-traditional occupations contributes to the wage gap between men's and women's earnings. In Alberta, women's average income in 2003 was just 56 per cent of men's.<sup>6</sup> As more women pursue non-traditional occupations, the wage gap is expected to decrease, however. In addition, as more women are employed and their earnings increase, they will face retirement with better pension coverage than ever before.

1 Alberta Profiles: Women in the Labour Force 2007, Alberta Employment and Immigration, page 10. Available at [employment.alberta.ca/lmi](http://employment.alberta.ca/lmi).

2 COAA on Labour Shortages: Key Messages, December 2005, Construction Owners Association of Alberta, page 2. Available at [www.coaa.ab.ca](http://www.coaa.ab.ca) (scroll to Site Highlights and click on COAA on Alberta's Skilled Labour Shortage)

3 Alberta Profiles: Women in the Labour Force 2007, Alberta Employment and Immigration, page 10. Available at [employment.alberta.ca/lmi](http://employment.alberta.ca/lmi).

4 Trends in Higher Education. Volume 2: Faculty, 2007. Association of Universities and Colleges of Canada: pgs. 5, 20. Available at [www.aucc.ca](http://www.aucc.ca).

5 Alberta Profiles: Women in the Labour Force 2007, Alberta Employment and Immigration, page 11. Available at [employment.alberta.ca/lmi](http://employment.alberta.ca/lmi).

6 Women in Canada: A Gender-based Statistical Report (Catalogue no. 89-503-XIE), Statistics Canada, 2006, page 134. Available at [statcan.gc.ca](http://statcan.gc.ca).

7 Alberta Profiles: Women in the Labour Force 2007, Alberta Employment and Immigration, page 7. Available at [employment.alberta.ca/lmi](http://employment.alberta.ca/lmi).



## Myths and realities

If you're thinking about working in a non-traditional occupation, you've likely encountered a few preconceptions and misperceptions. As you'll discover throughout this publication, some of these are based in fact; others deserve to be busted for the myths that they are. Here's a look at the realities.

**MYTH** If I choose a non-traditional occupation, people won't see me as feminine.

**REALITY** People will see you as who you are: no more, no less. If you've watched the crew of the *Holmes on Homes* television show, you'll have seen Corin Ames, also known as Pinky. She can demolish a wall and haul shingles like the guys, but she's made wearing pink her trademark.

Women who work in non-traditional occupations say it's OK to be different. Just know and be yourself, and keep in mind that trying to be one of the boys doesn't necessarily work in your favour. Your uniqueness brings something valuable to the work site.

**MYTH** Men don't want women on the job site.

**REALITY** That's true only on some job sites. There are still men who don't believe that women can do the job or that women belong on a mostly male work crew. And it can be intimidating to walk into a male-dominated workplace.

The best way to handle stereotyping and criticism depends, in part, on your job and your personality. Talking to other women in similar trades can help you find responses that work. And keep in mind that for many employers today, providing a harassment-free workplace is important—especially because they want women on their job sites. Employing women is one solution to the skilled labour shortage that's expected to continue over the next decade. So when you're researching your career, research employers, too, to find out which are considered top employers by their staff.

**MYTH** The physical requirements are too tough.

**REALITY** Some non-traditional occupations do require heavy lifting and considerable physical stamina.

It's important to research your chosen occupation and understand what it requires. If you're in good health and you're motivated, you can often develop the strength and stamina you need through an exercise program. In some cases, you can find strain-reducing ways to do the job. But it's important to be prepared.

**MYTH** It's too difficult to get into the trades or sciences.

**REALITY** With the right educational background, it's easier than you think.

If you don't have that background now, you can upgrade. For example, you can retake courses to get a better grade, or take those math or chemistry courses that you might be missing. Financial and academic help is widely available if you need it.

In some cases—including construction, for example—it's not “getting in” that's the problem—it's “staying in.” Conflicts with family life and dissatisfaction with the work environment can be factors in some non-traditional occupations. That's why researching your career is so important. Consider job shadowing, for example, so you can see what it's like on a real job site.

**MYTH** I don't have the right kinds of skills.

**REALITY** Maybe you're already using the skills, but in a different way.

What are you doing right now? Juggling school and work, perhaps? Then you're detail oriented, you know how to multi-task and you have well-developed organizational skills. Or perhaps you're running a household? Then you're responsible for delegating tasks, maintaining safety standards (storing chemicals and medicines away from children, for example) and boosting morale among family members. These are all skills that are directly transferable to a non-traditional occupation.

**MYTH** You can't have both a family *and* a career.

**REALITY** In many cases, you *can* have both. Yes, there'll be some juggling and balancing involved, but you can make it work. Enlisting the aid of family and friends and others in your support network can be a lifesaver. And employers increasingly understand that when they make it easy for people to be both parents and employees, they get happier, more productive employees who stay in their positions longer.

In some trades, however, balancing work and family can be much more difficult, especially if you're a single parent. This is especially true in trades such as industrial construction, where many of the job sites are so remote that employees temporarily live on or near the site.

If family is important to you, research your occupation so you understand the requirements and your options for balancing family life with work. It's also worth researching employers to find out which ones offer family-friendly policies and which ones don't.

**MYTH** Taking time off for maternity leave will jeopardize my career.

**REALITY** It doesn't have to. Think of it this way: the Queen Elizabeth II Highway runs between Calgary and Edmonton, but it isn't the only route between the two cities. Maybe you take a planned detour onto Highway 2A for a while, but you'll still be heading in the right direction. Maternity leave is the same idea: it's a detour, but you can still get to where you want to go. And maternity leaves are quite widely accepted, especially with more men taking time off for parental leaves.

Staying connected with your professional networks while you're on leave is a great way to stay on track.

**MYTH** It's difficult for women to get ahead in non-traditional occupations.

**REALITY** It's true that in some occupations women may face additional challenges for promotion and raises. But it's possible to deal with such challenges through careful career planning, education upgrades, management training and networking with professional associations.

If your occupation has predetermined levels of pay, you might find it's easier to advance financially in your career. That's because salary and wage increases are usually predefined, so you don't have to go to your supervisor or employer to negotiate a raise.

Talking to women in your chosen occupation can give you a realistic idea of the opportunities for advancement and the qualifications you'll need to move ahead.



## What's a non-traditional job really like?

Your working conditions will vary widely, depending on the career you're considering. You could be working in an ultra-sterile nanotechnology facility, for example, or on the shop floor of a heavy duty equipment repair company. Overtime might be required—or, at the very least, expected. You might need to travel, live in a small town or a large city or spend a lot of time outdoors.

You need to know yourself—and your own preferences—to know which options will appeal to you and which will not. You need to make sure you're prepared for the environment your occupation will place you in. That's why research—including job shadowing—is an important part of your career planning process.

Job shadowing is accompanying someone to work for a day or two and observing what they do. The goal is to get a more detailed picture of what's involved in the job.

## Transport Officer

# Enforcing the Law to keep our roads safe

Lisa Strand has discovered a dream career that lets her work at what she loves and keep regular hours, too. How did she find it? She asked a lot of questions and tried things out first. Her advice to other women is to do the same: Don't be afraid to try new things.

The next time you see a uniformed person checking out a commercial vehicle at the side of the road, think of Lisa Strand.

Lisa is a transport officer for Alberta Transportation's commercial vehicle enforcement branch in Grande Prairie. As part of her job, she pulls over and inspects commercial vehicles that weigh more than 4,500 kilograms. She makes sure that vehicles and drivers are properly licensed and that the vehicles meet provincial and national safety standards.

**"It's all about safety, which is why this career is so rewarding. I take a lot of satisfaction in knowing I'm protecting my family—and everybody else's families—when I take an unsafe vehicle off the road."**



A job that involves vehicle savvy is a natural fit for someone like Lisa, whose father is a heavy duty mechanic. "I always wanted to do something along those lines," she says, "but I also was interested in law enforcement." Lisa's career as a transport officer lets her put all the pieces together. For Lisa, it's the perfect job.

Lisa's journey toward her perfect job began in 2004, when she enrolled in a two-year policing diploma program at Lethbridge College.

The program covers both law enforcement and interpersonal relationships, and reflects the reality that police officers spend much more time writing reports and working in the community than they do chasing cars—despite the impression that television shows can give.

It's a comprehensive and well rounded approach. Courses in criminal law, investigative techniques and traffic enforcement complement sociology, alternative dispute resolution and psychology courses. "There's a lot of theory,"



Lisa says, “but a lot of practical, hands-on learning as well. For example, some of the forms we learned to fill out are standard in police work everywhere.”

Lisa heard about Alberta Transportation’s Commercial Vehicle Enforcement program while she was still on campus. Most of the training for the program is held at Lethbridge College, and training or experience in law enforcement is a helpful prerequisite. Lisa asked a lot of questions about the program and then signed up for ride-alongs with transport officers who were patrolling the province’s roads or staffing commercial vehicle weigh scales.

“They were so much fun,” Lisa says of the ride-alongs. “We’d put on our reflective yellow jackets, do a pre-trip inspection on our vehicle and go out on the road, where we’d stop commercial vehicles to interview drivers. The job intrigued me more and more.”

Lisa finished her policing program and was accepted into the Commercial Vehicle Enforcement program, which includes 16 weeks of paid training and another five months working alongside an experienced field training officer.

Six weeks into her training, Lisa found out she would be based north of Whitecourt and would be the only female transport officer in her region. Her father worried about her working alone. Transport officers carry batons and OC (oleoresin capsicum, or pepper) spray, but they’re not armed with guns.

“I was told that I was going to have a really hard time, and that I would have to be more aware of my safety, because we generally work alone. But that hasn’t happened at all,” Lisa says. “In the two years I’ve been on the job, only two guys have ever given me a hard time.”

### **Do you want to know more about law enforcement careers?**

Contact the Police Sector Council at [policecouncil.ca](http://policecouncil.ca). For information about post-secondary criminal justice and police career preparation programs in Alberta, check out the information at [alis.alberta.ca/edinfo](http://alis.alberta.ca/edinfo).

**“It’s about how you approach somebody and how you treat them. If somebody starts giving me a hard time, I don’t let it continue.”**

Lisa credits her people skills to her training and coursework, which have changed how she deals with people—in a positive way. The Commercial Vehicle Enforcement program provides plenty of training in people and situation management, and follows current employment legislation for employees working alone. “We do two weeks of incident management, including self defence, martial arts, running and fitness testing. They really put you through the wringer. For example, in one exercise scenario, you’re ‘attacked’ by multiple assailants. All of this gives you confidence,” Lisa explains. Now, even Lisa’s dad doesn’t worry anymore. “He’s noticed that I communicate with people a lot differently now.”

**Lisa loves her job.**

**“The possibilities are unlimited,” she says. Lisa has completed a field training course so she can work with new recruits. She’s taken a number of courses to hone her communications skills and is working toward a supervisory certificate that will help her advance in the branch. Lisa has also taken on duties as a recruiting officer for northern Alberta.**

When she’s not doing roadside inspections or weigh scale shifts, Lisa travels to universities and colleges for job fairs and other recruiting events. And as part of that role, she encourages women—and men—to do what she did: ask questions about the job. “I get emails and phone calls and I welcome them. There’s nothing wrong with asking questions,” she says. “I’m definitely planning to stay within the

government and the branch,” Lisa says. “I love what I do. And my job is really good when it comes to balancing work versus family life.”

Working as a transport officer gives Lisa the thrill of law enforcement work without the drawbacks that can sometimes come with the package. Traditional police officers often work 12-hour shifts, which can make it difficult to juggle family needs. Transport officers have more regular schedules.

“A lot of people with families end up coming to our department,” Lisa says. “We work 7.75 hours a day, five days a week. My husband and I work the same hours.”

Aside from the regular hours, Lisa has other reasons for loving her work. “The job itself is so interesting. You get to go to court. You write tickets. You can do a scale shift or a patrol shift. It’s the variety, and the fact that you’re working for the Government of Alberta, which is one of the biggest benefits—the pension and the benefits and the security.”

So what would Lisa say to someone considering a career as a transport officer?

“Do it,” she says. “Don’t be scared, and don’t be afraid to try new things, because this is the most rewarding career you could have. If you want a challenge, it’s there. And if you don’t have confidence going into the program, you’ll get it during recruit training.” ■





### **Interested in working for the Government of Alberta?**

For information about working as a transport officer for Alberta's commercial vehicle enforcement branch, visit [joincveb.alberta.ca](http://joincveb.alberta.ca).

To explore other careers with the Government of Alberta, visit [jobs.alberta.ca/explore](http://jobs.alberta.ca/explore).

# **What's involved in a career as a police officer?**

## **Duties**

Depending on their specializations and employers, police officers may be called transport officers, crime scene investigators, fraud investigators, guards, investigators and law enforcement officers. Their duties may include enforcing the law, apprehending criminals, promoting traffic safety, working in crime prevention and handling forensic investigations. Duties may also include working with community groups to identify and solve local problems.

## **Working Conditions**

Police officers may work a regular five day, 40-hour week or a compressed work week with 10- or 12-hour shifts. Weekend, holiday and night shifts are usually required.

Officers work both indoors and outdoors in all kinds of weather. They may be required to stand or walk for hours at a time or ride in a vehicle for a complete shift. They often work in stressful, emotional and dangerous situations and at times they must use force.

## **Personal Characteristics**

Honesty, integrity, maturity, good judgment, patience, intelligence, good observation skills and good humour are essential in this occupation. Police officers must be physically fit and meet minimum vision and hearing requirements. They must also be capable of working with all kinds of people in a variety of situations, using their own initiative and working with minimal supervision and as part of a team.

## **Educational Requirements**

Specific qualifications vary, but many police departments require a high school diploma, writing, keyboarding and computer skills, and valid first aid and cardiopulmonary resuscitation (CPR) certificates.

**For more information, see the police officer profile, along with other occupational profiles, at [alis.alberta.ca/occinfo](http://alis.alberta.ca/occinfo).**

## Research Chemist

# Investigating small things to make a big difference

Jillian Buriak finds her own way, not only within her area of research but along her career path as well. She balances family life with a demanding research and teaching career, keeping up her energy with exercise and healthy lifestyle and using technology—like her breadmaker and slow cooker—when it can make life easier.



University of Alberta researcher Dr. Jillian Buriak works with some of the smallest possible measurements. But her research has big implications for everything from understanding multiple sclerosis to building better solar power panels and even converting hydrocarbons into less harmful substances.

Jillian works in the field of nanoscience, which involves materials measuring just one-billionth of a metre. Put about 80,000 nanometres together, and you get the width of a human hair.

You might not think anything so tiny could be important, but when you're working with individual atoms and molecules, something really amazing happens: the materials behave differently. Some change colour. Or get stronger. Or weigh less. Others conduct electricity or heat differently.

If you harness tiny materials through various technologies, you can translate these differences into larger applications. And that's where the big benefits come in. You can deliver



drugs around the human body differently. You can store electricity more efficiently. You can design faster, lighter, more efficient computer chips and make smaller and smaller cell phones, computers and other chip-driven techno-gadgets.

Such technology is already in use. But we're still in the early days of understanding all its advantages and potential drawbacks.

Through her work as a professor of chemistry, Jillian is at the very forefront of this exciting new field, where she's bringing together different areas of scientific research. The group Jillian heads at the National Institute for Nanotechnology, for example, is investigating how biological structures can be linked to integrated circuits. One example is connecting human neurons—which are a key part of our nervous system—with silicon chips.

It sounds like something out of science fiction, conjuring up images of television-style bionic people. In fact, it's much simpler and

less sensational than that. The technology could be used to create sensors that can quickly and accurately identify harmful bacteria or chemicals. It could help scientists understand and treat neurological diseases like multiple sclerosis. In short, Jillian's research could make people's lives safer and better.

So how did Jillian find herself in her current career?

"I was always interested in science, even as a young child," she recalls. "And I loved astronomy. I remember being five or six and wanting to be an astronaut. I still have the telescope my parents gave me on my 11th or 12th birthday."

It was her parents, especially her father, who helped Jillian overcome the obstacles she faced in high school. "Trying hard and being smart was not considered cool," she says, recalling that she was called a "brainiac"—and not in a nice way. "So if I wanted to do things like astronomy, I had to do them outside of school. My father allowed me to do that. Every Friday

### **Do you want to know more about working in the sciences?**

The Canadian Coalition of Women in Engineering, Science, Trades and Technology (CCWESTT) and Women in Scholarship, Engineering, Science and Technology (WISEST) are two organizations that offer support. For more information, check out their websites at [ccwestt.org](http://ccwestt.org) and [wisest.ualberta.ca](http://wisest.ualberta.ca).

the poor man would drive me to meetings and ‘star parties’ held by the Royal Astronomical Society of Canada. My father was a huge support person for me when I was a teenager.”

Life for Jillian became easier after high school. She earned a place at Harvard University, where she majored in mathematics for two years and then transferred to chemistry.

“I really enjoyed math, and I was good at it. But you had to branch out into either really theoretical math or philosophy. It became really wacky or very applied, and I didn’t want to do either. I was doing chemistry as a pre-med requirement, and I realized I enjoyed that most of all.”

It was the idea of “making things” in chemistry that appealed to Jillian. It’s also why she loves to cook. But she decided to pursue chemistry as a career plan, and to leave cooking and astronomy as purely amateur (and fun) pastimes.

Jillian finished her Bachelor of Arts degree at Harvard in 1990, and went on to the Université Louis Pasteur in Strasbourg, France. By 1995, she had earned a master’s in chemistry and molecular engineering and a doctorate in chemistry.

“When I went to graduate school in Europe, that was really going against the grain,” Jillian recalls. “People said I’d lose touch, that I wouldn’t get a very good post. But in the end, that wasn’t the case. It was a great experience, and it really set me apart. I did wonder if I was making a mistake, but in fact it became part of my success.”

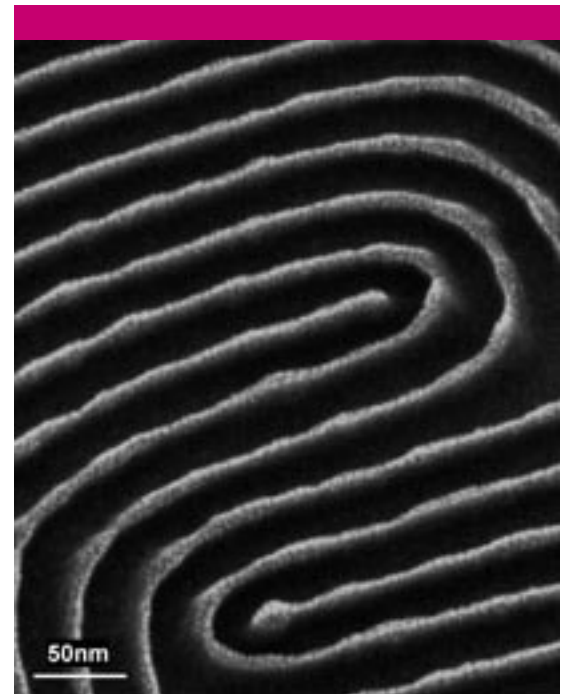
Jillian’s life has taught her that making mistakes is an important part of learning what’s right for you. “If you really want something, sometimes you have to discard the advice about the ‘right’ way,” she says. “Sometimes finding the right thing to do means inventing your own way,” she adds. “You may make a mistake, but you’ve got to try.”

Jillian has this advice for students who are planning their careers: “Choose courses you truly enjoy. It’s doing what you love that will help you recognize who you are and what your unique contribution can be.”

Jillian has invented her own way throughout her career as she found ways of balancing a demanding work schedule with raising her children in a blended family.

When she worked at Purdue University, in the third-biggest chemistry department in the United States, Jillian broke new ground when she became pregnant with her first child. “There was no such thing as maternity leave,” she explains. “I had to use sick leave. Plus, I had a research group that was depending on me, so I couldn’t just take a year off.”

“I didn’t have any role models, so I didn’t know what to do. I just played it by ear.”



Tiny, thin lines of platinum (nanowire) created using some of the same principles nature uses to build living structures.

Photo credit: Jillian Burak, Steven Choi, National Institute for Nanotechnology



Instead, Jillian got creative. She took her children to work until they were seven months old so she could continue to breastfeed. Meetings with students were held during walks, with the baby in a carrier. “I didn’t have any role models, so I didn’t know what to do. I just played it by ear.”

“Everyone was accepting,” she recalls. But it wasn’t always easy. And more than once, she wanted to quit.

Today Jillian says that the secret to balancing work and family comes down to sheer energy.

“The way I get energy is to stay in really good shape. I can never afford to be tired, not even one day. But if you try to incorporate being in shape into your daily routine, you’ll always have energy. We walk to the university. We ride bikes to school with the kids. We choose to live in a place that encourages us—forces us—to do this,” she explains, adding that it’s not easy always to keep things up.

**“You have to have energy to be able to manage everything and become a multi-tasker par excellence.”**

“It’s so easy to slip—and I have slipped—but it’s about being healthy,” Jillian says. “It’s not about looks, it’s about being healthy and in shape so you have the energy to enjoy life.”

Jillian says that if you love your career and your family, you’ll figure out how to make things work. “There’s no one ‘right’ way,” she emphasizes. “You may make mistakes, but you’ve got to try.” ■

**Are you worried that there just aren’t enough hours in the day to get everything done?**

Are you concerned that you could spend so much time and energy on your work that it will take over your life? If so, the ALIS Tip Sheet “Creating a Balanced Lifestyle” can help. It’s available at [alis.alberta.ca/tips](http://alis.alberta.ca/tips).

## What’s involved in a career as a chemist?

### Duties

Chemists research the properties and composition of elements and compounds. They apply chemical principles to developing products such as new fuels, plastics, medicines or foods. A chemist’s duties may include researching chemical compounds and chemical reactions, developing new applications for chemicals or investigating how drugs can be used to treat disease. The duties of a chemistry professor at a university could include teaching, conducting research studies and administering programs.

### Working Conditions

Chemists usually work regular hours in office and laboratory environments. They may work in chemical plants, where hours can be longer and involve shift work, or they may work outdoors. Chemists sometimes work with hazardous substances.

Chemistry professors at universities teach classes that range from a handful to hundreds of students. They often work long hours year-round to complete their teaching and research duties.

### Personal Characteristics

Chemists need good speaking, reading, writing, critical thinking, mathematical and problem-solving skills. They should enjoy summarizing information, finding innovative solutions to problems, using instruments to work at tasks that require precision and directing the work of others.

### Educational Requirements

Most chemists begin their studies with a four-year Bachelor of Science degree followed by a master’s and doctorate. Research and post-secondary teaching positions usually require a doctorate.

**For more information, see the chemist profile, along with other occupational profiles, at [alis.alberta.ca/occinfo](http://alis.alberta.ca/occinfo).**

# Navigating by her Aboriginal roots

Brenda Holder took the long way round in her journey to discover her roots. Now she knows the importance of holding on to traditions that matter and sharing them with the world. With a little help from her friends, she's transformed that knowledge into a successful business. So take Brenda's advice: Remember that help is out there for the asking.

When you meet Brenda Holder, it's entirely likely that she'll be leading you across the valleys of Kananaskis, using stars in the night sky as her guide. Or painting a picture of animals that have passed by, based solely on the tracks they've left behind. Or sharing age-old wisdom about the medicinal properties of a group of plants beside the trail.

Brenda is the owner of Canmore-based Mahikan Trails, which takes its name from the Cree word for "wolf." She specializes in the natural world and all it holds, sharing her Aboriginal heritage through guided walks and hiking trips.



**"I'm very proud to be one of the few Canadian women of Aboriginal descent to become an internationally qualified guide."**

Guiding might seem a natural career choice for someone like Brenda, who grew up in Jasper. But it wasn't until her mid-thirties that Brenda took the business potential of her own background seriously.

Brenda explains, "My story really starts with my roots, I suppose. I had the good fortune to be born and raised in a Métis family. We were considered urban Métis, but my parents also ran two traplines between Jasper and Hinton. And I learned a lot of interesting chores as a child on a trapline."



Brenda also learned a lot from her grandmother, who was well versed in natural medicines. One of her favourite memories involves her grandmother boiling skunk cabbage on the cookstove for medicinal use. “You weren’t sure whether it was the taste or the medicine that got you better,” Brenda notes with a wry smile.

Brenda’s grandmother said that many of her ancestors had been experts in using plants as natural medicines, and that Brenda had inherited a talent for medicine as well. “I looked at her and said, ‘Well, that’s OK, but I’m going to university and I’m going to be a doctor,’” Brenda recalls. “My grandmother told me I’d get into medicine all right, but not the way I thought.”

Brenda headed to university as planned, studying cell and molecular biology. But the natural world was tempting her away from her classes at about the same time that her money was running out.

**“Not having the money to complete my education sped up my decision to leave school, but I think I’d have succumbed to the lure of the guiding world anyway.”**

Brenda left university and eventually met her husband—then a British soldier—in Jasper. She landed a job with the British military, which operates a training unit at Canadian Forces Base Suffield. As part of the unit’s adventure training office, Brenda helped co-ordinate skydiving, mountain climbing, hiking and other activities for the soldiers.

“It was very fulfilling and a lot of fun,” Brenda recalls, “but I was beginning to outgrow the job. And although I had a pretty good background as a guide, I was relegated to the office most of the time.”

### **Do you want to know more about starting your own business?**

The non-profit organization Alberta Women Entrepreneurs offers advice, business skills development, financing and networking opportunities for women in business. For more information, check out the website at [awebusiness.com](http://awebusiness.com) or call 1-800-713-3558.

Brenda knew she had to find a different job. But the idea of starting over at a different company didn't sound good, nor did the idea of being told what to do all the time. "My only option was to create a job that would appeal to me," she says, "so I decided to become an entrepreneur."

Brenda knew she had the skills to be an excellent guide. She also knew there was a huge tourist market for guiding services. Alberta's mountain parks host some 25,000 visitors a day from Europe, Asia and destinations around the world.

"I found it hard to believe that the skills I'd learned as a child were interesting to anyone else. But I realized these skills were foreign to many people and that many tourists who come to the mountain parks have a strong interest in Aboriginal heritage."

Brenda saw the potential for starting her own business, but there were two issues she had to deal with first: securing funding and figuring out how to market herself.

"Dealing with the banks was a real lesson for me," Brenda recalls. "There were a lot of factors against me. I was already in debt, I'd never owned a business before, I didn't have any credit and I was a female Aboriginal. You could just see them getting ready to say no. That was very intimidating."

Brenda turned to Aboriginal Business Canada for help. She was put in touch with a wonderful mentor who helped her put together a business plan. Aboriginal Business Canada also put Brenda in touch with the Calgary-area Métis Nation Region 3, which ran a regional Aboriginal tourism association. Brenda welcomed the opportunity to reconnect with her Aboriginal background and to network with journalists who could help her tell her story. "One article alone increased my business by 30 per cent," she notes.

While national park tourism was a natural start for her business, Brenda didn't immediately realize she was overlooking a key marketing advantage: her unique Aboriginal heritage.

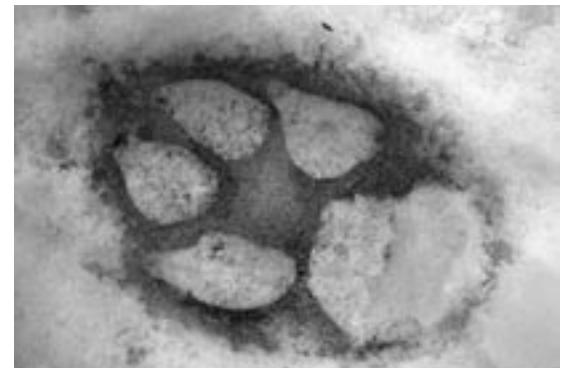
Brenda recalls telling a group of hikers about a bear track they spotted on the trail—what it was, how old it was and why it was there. The positive reaction to her detailed explanation surprised her. A short time later, she received the same fascinated response when she handled some questions about hide tanning.

"My only option was to create a job that would appeal to me," she says, "so I decided to become an entrepreneur."

"I found it hard to believe that the skills I'd learned as a child were interesting to anyone else. I'd always thought of the trapline as a chore. It was like someone asking me to teach them how to wash dishes. But I realized these skills were foreign to many people, and that many tourists who come to the mountain parks have a strong interest in Aboriginal heritage."

So Brenda aimed her business squarely at the Aboriginal heritage market, a unique niche in the tourism industry. Now she focuses on three key areas: soft adventure, culture and traditional experiential learning, and unique team-building programs.

"I came full circle in my traditional knowledge and recognized the value of it," Brenda explains. "It was a really big lesson for me to come back to my culture—and to pass it on." Today, her son, Jordan—now a qualified



Three Sisters mountain range, Canmore.

guide as well—joins Brenda and her husband on the staff of Mahikan Trails.

Brenda encourages other Aboriginal women to explore the possibilities in guiding and tourism. “As Aboriginal people, sometimes we don’t believe that we have as much to offer. But often it’s our differences that produce the most amazing opportunities,” she says, adding that this concept easily translates across cultures. In any business, “different” can be the basis of success. “Besides, I can’t serve 25,000 people a day by myself,” she says with a laugh.

When asked what advice she would share with would-be entrepreneurs, Brenda quotes a popular self-help book title. “Feel the fear and do it anyway,” she says. “It’s OK to be scared, but don’t let fear stop you. Even if the fear feels like it’s too big and too much, just start reaching out to other people who’ve been there.”

Brenda emphasizes that there are lots of resources available to women who want to start a business. They’re easily available, and many are free.

“You don’t have to tackle Mount Everest alone,” she says. “There’s help out there.” ■



## What’s involved in a career as an outdoor guide?

### Duties

Outdoor sport and recreation guides organize and conduct mountain expeditions, rafting trips, skiing excursions, hunting trips and fishing trips, trail rides and other outdoor activities. Their duties may include leading tour groups, providing information about local plant and animal life, setting up camp on overnight expeditions, and arranging transportation, equipment and supplies.

### Working Conditions

Outdoor sport and recreation guides work outdoors, often in wilderness conditions and in all types of weather. Their work is generally seasonal and may require long periods away from home. The work can be strenuous and heavy lifting is often required.

### Personal Characteristics

Outdoor guides must be healthy, outgoing and enthusiastic, with strong leadership and conflict resolution skills. They need the patience to deal with inexperienced clients and the skills to handle emergency situations effectively.

### Educational Requirements

There are no minimum education requirements, but guides should have a good knowledge of their field, a driver’s licence and certification in wilderness first aid and cardiopulmonary resuscitation (CPR).

Guides who work in Alberta’s mountain parks must be certified by the Association of Canadian Mountain Guides and hold Alpine Guide and Ski Guide certificates. Certification generally takes four to six years. For information about certification requirements, contact the Association of Canadian Mountain Guides at [acmg.ca](http://acmg.ca) or 403-678-2885.

For more information, see the [outdoor sport/recreation guide profile](#), along with other occupational profiles, at [alis.alberta.ca/occinfo](http://alis.alberta.ca/occinfo).

## Civil Engineer

# Watching over our land and water

Bunny Mah's projects take her to hundreds of communities across the province, where her work to protect agricultural water has a direct effect on the food we can grow. Her secrets for success include working hard, setting goals, having confidence in your own abilities and knowing it's OK to ask for help.

If a local agriculture issue involves water, civil engineer Bunny Mah will also be involved. Bunny is the regional ag-water (agricultural water) manager for Agriculture and Agri-Food Canada. She's responsible for partnering with federal and provincial agencies and other agricultural stakeholders to evaluate the water supply, quality and sourcing of water throughout Alberta and the Yukon.

"My department supports water-based programs for the agriculture sector," Bunny explains. "We offer expert advice to water pipeline groups, research institutes, municipalities and other agricultural stakeholders who come to us for technical assistance."

So what drew Bunny to her water-working career? It was a place where she could combine her love of engineering, her concern for the environment and her commitment to doing some good in the world.



Born in Hong Kong, Bunny moved to Canada with her family in the late 1960s and completed junior and senior high in Alberta. Science and engineering always fascinated her. "Even in high school, it was the engineering electives like drafting that I selected," she recalls.

As a recent arrival to Canada whose first language was not English, however, Bunny faced some obstacles to academic success. She recalls attending a student achievement ceremony shortly after coming to Canada. "I knew from the moment the other students walked on stage that I wanted to be there too," Bunny says. "I went home and talked to my dad."

**"If you want to achieve certain goals, you have to work hard. You have to be prepared to make those sacrifices."**



Bunny's father reminded her that because she was a newcomer learning a new language, she'd have to work twice as hard to achieve what other students did. "I took that advice to heart," Bunny says. "I knew I had to be better. If you want to achieve certain goals, you have to work hard. You have to be prepared to make those sacrifices."

Bunny's hard work paid off, and she did, in fact, walk onto that stage more than once during her school years. One year, she even placed second in the province at the Math Olympics.

When she went on to the University of Alberta, there were only four women studying civil engineering, but Bunny didn't let that deter her from pursuing her dream. So how did Bunny's engineering degree prepare her for a career in water management?

"I like the structural element of civil engineering, but not necessarily the structure of buildings," Bunny explains. "I prefer hydraulic structures and water resource management.

**"I knew water was something I wanted to go into. And as an engineer, you always want to contribute to society and solve issues that deal with everyday human needs."**

And I wanted to do something for the public good. Water is a resource that is readily available. It's a renewable resource, but as water users, we need to put our attention to caring for it," she explains. "I knew water was something I wanted to go into. And as an engineer, you always want to contribute to society and solve issues that deal with everyday human needs."

Bunny is quick to point out that engineers have a vital role to play in helping the environment. That's why she went back to university to complete a master's degree in

**Do you want to know more about an engineering career for women?**

The Canadian Coalition of Women in Engineering, Science, Trades and Technology offers support. Check out their website at [ccwestt.org](http://ccwestt.org).

environmental engineering, specializing in water management issues. After graduating, she joined the federal agriculture department as a project engineer, helping farmers and ranchers make the best possible use of available water resources.

“As a project engineer, I’d go out to small communities all around Alberta,” she explains. “I really enjoyed those times. When you’re helping with water storage or developing a water well, you know you’re improving the quality of life for people. It’s a very satisfying feeling.”

The work also provided some lessons that Bunny has never forgotten.

**“If you look at yourself as a woman or a minority, you’re putting a barrier in front of yourself before you even start.”**

“One time I was asked to help out a Hutterite colony that wanted to do some water treatment in a water storage dugout. I went out to the site with some of my colleagues and I explained the options for water treatment. Because of the size of the dugout, the chemical was going to cost at least \$10,000,” she says.

Given the situation and the huge investment involved, Bunny had doubts that her recommendation would be accepted. She recalls sitting with her host at lunch, with the Hutterite women sitting in one area and the men sitting in another, and thinking to herself, “I’m a woman and I’m a minority and I’m trying to give them advice. How effective is this for them? Why would they listen to me?” But the colony went ahead and purchased the chemical and set up the equipment they needed for treating the water.

Bunny was surprised that her advice had been taken, but her colleagues were quick to tell her why she’d succeeded in getting her message across. “When you talked with them, you were very confident and clear about the options and the outcomes.”

That’s very important, Bunny says. “If you look at yourself as a woman or a minority, you’re putting a barrier in front of yourself before you even start.”

The task of managing our water resources is more important today than it’s ever been. Bunny explains: “Within Alberta, we always thought there was a lot of water. Now, because

of climate change, sometimes we’re seeing flooding and sometimes we’re seeing drought. Our challenge is to look proactively at climate adaptation. How do we help the agricultural sector prepare for the risk of too much or too little water?”

Bunny works with provincial and federal government stakeholders to plan, co-ordinate, manage and set priorities for regional activities that involve agricultural water. She and her colleagues are also examining the issue of source water protection, helping municipalities and agricultural stakeholders assess the state of their watershed—from water on the surface to water that’s below ground.

Bunny says that learning to be confident about her own knowledge and expertise—and not being afraid to ask for help when she needs it—have helped her at every step in her career. “For example,” she explains, “When we’re setting up a water distribution system, it’s my job to design the infrastructure. But I’m an engineer, not a handyman. So I rely on my technical staff to use the tools and get the materials we need to actually set up the system. I have no problem going to the technicians and asking them to assist. We always work as a team.”



Bunny on site inspecting riprap protection along the Bow River bank, Siksika Nation (Blackfoot Indian Reserve).

Bunny appreciates that her work has a direct effect on people who produce the food that ends up on our tables. “We’re closely tied to the grassroots,” she explains. “And it’s satisfying to know that the advice we give is really valued by our clients, the producers.”

Bunny’s work with water has touched the lives of food producers in hundreds of communities across the province. Bunny is based in Calgary, but she has often driven to Edmonton to spend time with her parents. When her girls were little, they once asked Bunny to name 100 Alberta places where she had worked.

“I named places from northern Alberta to southern Alberta,” Bunny recalls. “It was more than a hundred places. It made me realize that I really have travelled the province and maybe made a contribution in all those different locations.”

Bunny is still making a contribution, and most important, she’s still enjoying it. ■



Following a program meeting and project tour in Whitehorse, Bunny found time to admire the power of the Yukon River and its Klondike history.

# What’s involved in an engineering career?

## Duties

**Chemical engineers** conduct experiments to develop or improve products and processes, design equipment and operating specifications for industrial plants and, in plant operations, make sure their unit operates efficiently and safely. Their work is used to convert raw materials into a variety of products, including chemicals, pharmaceuticals, food products, fuel, and plastics.

**Civil engineers** plan, design and supervise the construction and maintenance of industrial buildings, airports, roads, railways, bridges, tunnels, dams, offshore drilling structures, water treatment plants and other public and private structures and facilities. Specializations within the field include construction, transportation and water resources.

**Electrical engineers** design systems that use electromagnetic energy or electrically coded information. Their work is used in communications systems, power systems, nanotechnology, computer systems, biomedical technology and other applications.

**Mechanical engineers** work with heating, ventilation and air conditioning systems, water and power utilities, and emerging fields such as robotics, telecommunications and commercial space travel. Specializations within the field include design, development, manufacturing and research.

**Petroleum engineers** are involved in the exploration and development of oil and gas from conventional reservoirs and from oil sands.

**Agricultural engineers** specialize in the relationships between organisms and their environment. Their work may deal with agricultural machinery, drainage and waste management systems, environmental assessments, livestock and crop production, food processing and other areas.

## Working Conditions

Engineers may work in offices, laboratories, construction sites, manufacturing facilities or in the field. Their working environments are as varied as their projects.

## Personal Characteristics

Engineers in all fields need to have good communication and problem-solving skills and a skill for science and mathematics.

## Educational Requirements

A four year bachelor’s degree is the minimum requirement for most engineering-related fields.

For more information, see the engineering profiles, along with other occupational profiles, at [alis.alberta.ca/occinfo](http://alis.alberta.ca/occinfo).

## Boilermaker

# Managing apprentices and an equestrian passion

j'Amey Holroyd dreamed of owning her own stable. She never expected that becoming a boilermaker would allow her to achieve that dream, but sometimes life's paths take directions we don't expect. j'Amey's advice is to grasp opportunities wherever you find them, and see where they will take you.

j'Amey Holroyd knows a lot about apprenticing. She completed an apprenticeship to become a journeyman boilermaker. She has taught apprentices. And now she manages 300 apprentices and up to 1,000 pre-apprentices annually through the Boilermaker Apprenticeship Agency founded by Alberta's Boilermakers Union Local 146 more than two decades ago.

Managing apprentices is not exactly what j'Amey expected to be doing when she left Vancouver, where she'd grown up, to take a two year horsemanship course in Alberta. The course, she hoped, would teach her how to manage a stable so she could own her own one day. But things didn't work out the way she expected.



“After two years of school, I got a job at a stable for \$7.50 an hour. I realized I was never going to have my own stable making that kind of money,” she recalls.

**“A friend of mine was going through an apprenticeship program to become a heavy duty mechanic. He knew what he was getting into because he worked in the industry while earning his apprenticeship hours.”**

It was a hard lesson to learn, but j'Amey wasn't finished with Alberta yet. “A friend of mine was going through an apprenticeship



program to become a heavy duty mechanic. He was learning on the job while earning a wage, and going to school for short periods of time. He knew what he was getting into because he worked in the industry while earning his apprenticeship hours.”

When j’Amey compared her apprentice friend’s prospects with her own more precarious situation, she could see definite advantages. Her next step was to research a career switch.

“I knew I wanted to get into a steel-related trade,” she says. “A neighbour who was a boilermaker introduced me to a union apprentice co-ordinator who helped me land a ‘man watch’ position. Boilermakers work in confined spaces, so they need someone on the outside to communicate with in case they need a rescue.”

j’Amey expected that her man-watch job would be outside the boiler, but to her surprise, that wasn’t the case. She found herself inside

the boiler instead. And she didn’t mind a bit—getting dirty, or being in that confined space.

Her decision was made.

“I started my apprenticeship program at NAIT in 1999. There are four periods of training for six weeks at a time, and then you’re working steady after that.”

j’Amey’s chosen career is one that’s always challenging. “Challenging in a good way,” she says. “It’s very diverse. There’s a lot of variety in the equipment we work on.” Boilermakers maintain and repair tanks, vessels and boilers in industrial facilities as diverse as oil and gas plants, generating plants, refineries, mines and pulp mills.

When she completed her boilermaker apprenticeship, j’Amey went on to earn Red Seal and Blue Seal certification. The Red Seal allows her to work anywhere in Canada because she has passed industry-developed interprovincial standards examinations. The Blue Seal marks her completion of the

## Are you interested in a career in the trades?

Women Building Future’s Journeywoman START and Journeywoman BASICS programs provide training and support to help women prepare for careers in the trades. Find out more at [womenbuildingfutures.com](http://womenbuildingfutures.com) or call 1-866-452-1201.

Achievement in Business Competencies Program, which includes courses in administration, accounting, marketing and project management. The Blue Seal provides a great foundation for tradespeople who want to run their own businesses as well as for those who want to work in management, as j'Amey has chosen to do.

j'Amey now finds herself in an office, most days, managing boilermaker apprentices on behalf of the contractors they work for. "I do miss working in the field," she says, "but it's just a different deliverable at the end of the day. I enjoy the challenges this job offers. It keeps things interesting."

j'Amey's transition from the field to administration was a gradual one, beginning about five years ago. "I applied for a job as an instructor and shop technician in the boilermaker training centre. Then I moved from teaching into an apprentice administration role."

"Not many people realize that the trades include management," j'Amey says. "But management is a huge part, so people skills are really important. I started taking supervisor training near the end of my apprenticeship—just to be prepared for the situation and to see where it would take me."

And how do people take j'Amey as a woman in a non-traditional occupation?

**"It's not just about gender. It's about how you conduct yourself. As soon as people realize you're professional, everything's easier."**

She says she's run into some skepticism, but for the most part, the people she's worked with have been supportive and accepting. "People tend to be skeptical about anyone who's new on the job. It's not just about gender. It's about how you conduct yourself. As soon as they realize you're professional, everything's easier. They know you're not there to cause problems. You're there to do a job, to help the team."

Teamwork is an important part of the industry, j'Amey adds. "There's a lot of camaraderie. You're all really dedicated to getting the job done, and when you have a great team, work is excellent."

j'Amey finds her work rewarding in itself, and her career has also made it possible for her to fulfill her dream of owning her own stable.

**"Thanks to my career as a boilermaker, I've got what I always wanted. But it's funny where life's paths take you."**





“I own a farm east of town,” she explains. “I have 65 acres, I have 12 horses and a donkey, and I have an indoor riding arena. Thanks to my career as a boilermaker, I’ve got what I always wanted. But it’s funny where life’s paths take you. Even though it didn’t become my career, finishing that horsemanship program gave me a lot of knowledge to use with my own horses.”

j’Amey advises career seekers to consider all the elements of a prospective career. “I like working with horses,” she explains, “but that doesn’t offer everything I need in a career.”

j’Amey also has this advice: “For a lot of my career, I’ve said, ‘Sure, I’ll try that—it will be a good experience and I’ll see where it takes me.’ So look for opportunities and take advantage of what’s presented, even if it’s not what you expected.”

Like j’Amey, you could end up with what you always wanted—even if the path that gets you there isn’t the one you’d originally planned. ■

### **Interested in the trades but don’t know where to start?**

For information on how to get started in a trade, check out the Alberta Apprenticeship and Industry Training website at [tradesecrets.gov.ab.ca](http://tradesecrets.gov.ab.ca).

And, for a head start on your trades training, check out the Registered Apprenticeship Program (RAP), which gives high school students the opportunity to earn credits while they work toward an apprenticeship program. For details, enter “RAP” in the search function at [tradesecrets.gov.ab.ca](http://tradesecrets.gov.ab.ca).

## **What’s involved in being a boilermaker?**

### **Duties**

Boilermakers build, repair, test and maintain all types of boilers, tanks and pressure vessels. They use shears, drill presses, oxy-fuel torches, electric arc welding equipment and other machines to shape and fit steel plate, sheet steel or other heavy metal.

### **Working Conditions**

Boilermakers generally work on construction sites where conditions are often cramped, dirty, noisy and wet. Heavy lifting, working on scaffolds and exposure to chemical vapours is sometimes part of the job. Travel to worksites may also be necessary.

The normal work week is 40 hours but some overtime may be required.

### **Personal Characteristics**

Boilermakers need physical strength and stamina, good co-ordination and manual dexterity and good mechanical ability. They should enjoy working with tools, equipment and machinery at tasks that require precision.

### **Educational Requirements**

Boilermakers who work in Alberta must be either a registered apprentice, a certified journeyman or someone who holds a recognized trade certificate.

**For more information, see the boilermaker profile, along with other occupational profiles, at [alis.alberta.ca/occinfo](http://alis.alberta.ca/occinfo).**

# Protecting the planet and being a good mom

Who says you can't have the best of two worlds? Biologist Sue Peters has just that, although she's had to make some trade-offs to get it. For Sue, working part time lets her enjoy her growing family and still have the intellectual stimulation of a job that plays an important role in wildlife conservation.

Do you ever wonder just how it is that a species is declared endangered or threatened? In Alberta, the process often begins at the desk of Sue Peters, part-time wildlife biologist and full-time mom.

"I'm involved at the first step," says Sue, who works for the Alberta Conservation Association. "That's where a group of biologists sits down and talks about various species with red flags. If they think a species may be endangered or at risk, we launch a status review. My job is to find the best experts to gather the information on the species, and then to edit and publish the status report."

The status report covers everything from conservation biology, habitat and population trends to factors that limit the species. (Shrinking habitat is one example of a limiting factor.) The completed report is reviewed by a group of independent scientists who in turn provide advice to the province's Endangered Species Conservation Committee (members include scientists, conservation groups, resource-based land users and government staff).



The Alberta Conservation Association is a not-for-profit registered charity funded largely through hunting and fishing licence fees and a growing number of corporate sponsors. The Association delivers a variety of programs and services, with key programs focusing on wildlife, fisheries and land management.



Sue likes knowing that her reports have a purpose. They're not just shelved in a library—they're assessed and their information compared to specific criteria set by the International Union for Conservation of Nature for classifying species at risk.

Sue also likes learning from experts who have worked with endangered species for years. And she likes the variety her job offers. "It's fun because I can be working on an invertebrate, a mammal and a bird, all at the same time," says Sue. "Right now, we're looking at reports on species of bats, rattlesnakes, toads, plants, and fish."

So what lured Sue to the world of mammals, reptiles and amphibians?

Sue explains that she loves the outdoors and always knew she wanted to work with animals. As a child, she memorized the address of the Humane Society and considered becoming a vet. But when she began taking courses on ecology at university, she was hooked.

**As a child, Sue memorized the address of the Humane Society and considered becoming a vet. But when she began taking courses on ecology at university, she was hooked.**

"I became fascinated with ecology because it's so complicated and multi-faceted," she says. "And it has great opportunities to be outdoors and do field research—looking at wildlife and plants in their natural setting, where they grow and live and survive."

When she was working on her Master of Science at the University of Alberta, Sue studied how white spruce trees regenerate after logging. Her field research took her to remote forests that had already been partly harvested. Another field research project took Sue to

### **Looking to find the right work-life balance?**

From part-time work to job-sharing, the tipsheet "Alternatives to Traditional Full-Time Employment" offers a variety of options to consider for balancing your career with family. It's available at [alis.alberta.ca/tips](https://alis.alberta.ca/tips).

southern Alberta, where she conducted an inventory of an endangered plant species.

“Field research has its drawbacks,” Sue says with a laugh. “Like no showers, I’ll say that right up front. But it definitely comes with adventure and opportunities to learn how complex nature really is.”

The seasonality of fieldwork can be a challenge, too: when the snow melts, there’s lots of demand for researchers, but when the warm weather disappears, it can take jobs with it. “If you can get a full-time, permanent job with a conservation organization or the government, you’re set,” Sue explains.

For now, Sue’s work site is the office, not the field, but she appreciates the professional yet casual collegiality of her work environment. “We all enjoy what we do,” says Sue, “and it’s really a good group of people to work with. That’s worth a lot to me.”

Her part-time work schedule is also valuable to Sue. “My role is quite focused right now,” she explains. “After my first maternity leave, I intentionally chose a part of my job that’s office-based and that I can handle effectively working two days a week.”

“Women can get good jobs in biology, but if you have children, you have to negotiate a schedule that works for you.”



Sue measures a red-sided garter snake at a snake den near Stony Plain, west of Edmonton.

Sue adds that she was nervous about taking her first maternity leave because she didn’t know any other biologists at her workplace who had done so. But her manager and co-workers were all supportive.

“I’m in career-maintenance mode right now. I’m not career building,” Sue says. “That means I can come home after work and not be conflicted and stressed. I have a very understanding office, and my manager reminds me that I can work more hours whenever I want to. But I’ve never felt I was jeopardizing my career by saying no. I still have little kids whose worlds revolve around me, so I need to put career and family into the proper perspective.”

“I think it’s good for the kids to go to a day home on the days when I’m at work, and I know they enjoy it. They learn that they have to listen to other adults, and they get to play with different toys. For kids who are two and five, that’s a dream come true!”

Sue feels she has the best of both worlds. At home, she’s fascinated by her children’s interest in learning and she treasures the special moments she spends with them. When reading a book with her daughter recently, Sue described an animal in one of the pictures as a monkey. Sue recalls how quickly her daughter corrected her. “She said, ‘Oh, Mummy, that’s not a monkey, that’s a lemur. Look at his tail!’ ”

At the same time, Sue’s work fulfills needs that being a mom can’t. “It taps into such a different part of who I am—the intellectual side of things,” she explains. “Being a mom challenges you emotionally and physically, and it involves so much multi-tasking and so many interruptions. Being at work allows me to focus and concentrate.”

“You can’t conquer the world on two days a week,” says Sue with a chuckle, “but you can help. I definitely appreciate the opportunity to be a biologist and a stay-at-home mom.” ■



Sue looks for toads and frogs during a survey of the amphibians at Lois Hole Centennial Provincial Park, near St. Albert.

### Interested in a career in science?

For more information about careers in science, contact the Alberta Women's Science Network at [awsn.com](http://awsn.com) or 403-282-6431.

# What's involved in being a biologist?

## Duties

Biologists conduct research to learn more about living organisms and ecosystems. They manage natural resources and develop new practices in fields such as environmental conservation, pharmacology, forestry, forensics, nanotechnology and pest control.

There are many specializations in the field of biology.

### Botanists and plant biologists

study plant fossils, plants and related environmental issues such as conservation, reforestation and weed control.

**Fisheries biologists** study freshwater fish and their habitats.

**Marine biologists** study bacteria, plankton, plants and animals that live in oceans and on shorelines.

**Wildlife biologists** study birds, reptiles, mammals, amphibians and their habitat.

## Working Conditions

Biologists' working environments range from offices and laboratories to research ships and remote, rugged terrain. Some biologists work primarily outdoors collecting and identifying specimens, taking samples, and surveying and documenting populations. Others work primarily indoors in offices, classrooms and laboratories.

## Personal Characteristics

Biologists in all fields need to have good communication, problem-solving and observation skills, an interest in nature and an aptitude for mathematics and statistics. They should enjoy synthesizing information, working at tasks that require precision and working with other scientists.

## Educational Requirements

A four year Bachelor of Science degree is the minimum requirement for entry into this field. Field biologists, administrators and environmental consultants generally require a master's degree. Biology researchers and university professors must have doctoral training.

For more information, see the [biologist profile](#), along with other occupational profiles, at [alis.alberta.ca/occinfo](http://alis.alberta.ca/occinfo).

## Instrument Technician

# Racing to the finish

Keela Coss's life and career demonstrate over and over again the truth of her favourite quote: "Do what you can, with what you have, where you are." We all have the ability to dig down and find the resolve we need to achieve our goals.

It's easy to find Keela Coss on a summer weekend. Chances are good that she'll be behind the wheel of her beloved 1971 Dodge Dart at the starting line of a drag strip just south of Edmonton. She'll cover 400 metres (a quarter mile) in 12.5 seconds, accelerating up to 170 kilometres per hour by the time she crosses the finish line and shuts off her souped-up engine.

"It's a huge rush," she says with a grin. "And it's a lot of fun, even when I'm not racing in a competition."

During the week, Keela tests, maintains and calibrates oilfield equipment for Halliburton, an international oilfield technology company that employs close to 50,000 people in some 70 countries. Keela is part of the team based in Nisku, near Edmonton.

Keela never dreamed she'd work in oilfield services. "I was interested in animals," she recalls. "I always thought I was going to be a vet. But as things turned out, I had to go to work right out of high school. There just

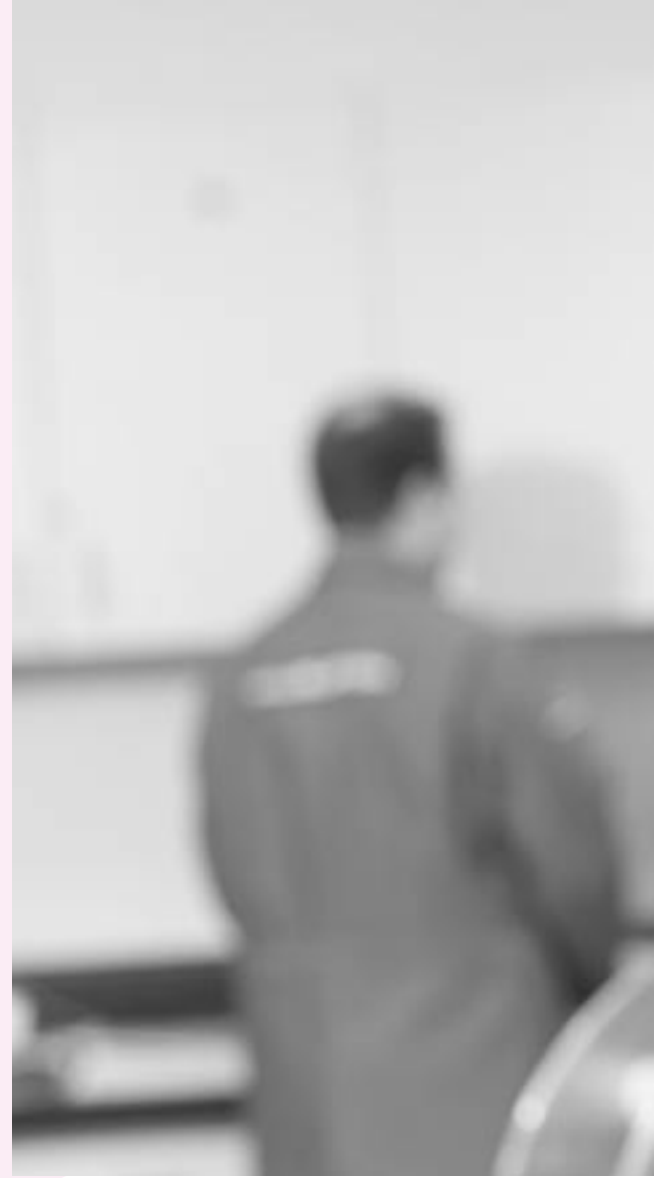
wasn't any money for university."

Working with oilfield equipment is a long way from working with animals, but Keela has found an employment niche that not only provides a sense of fulfillment, but helps to fund her passion—racing cars.

The journey to find a job she enjoys wasn't always easy. Keela's first summer job was working as a flag person on a road construction crew. By her second season, Keela had worked her way up from directing traffic to operating the packers and other heavy equipment used for building roads.

Keela credits her promotion to hard work, a good attitude and—most of all—to the on-the-job training she received simply by showing interest in what the equipment operators were doing.

"A lot of the equipment had two seats, so I'd ask the guys if they minded if I rode along. Sometimes they'd let me try to operate the machine myself," she recalls.





**“When you ask someone what they do or how they’re doing it, they’re usually happy to show off what they know. It goes for almost anything.”**

“It was kind of unnerving sometimes. A big machine feels really unstable if you get too close to the shoulder. It’s just the balance of the machine. It’s totally different from driving a car because your centre of balance is so much higher. That’s why heavy equipment has seatbelts and roll bars, for safety.”

Even when Keela mastered the big machines, there were co-workers who didn’t believe a young woman could really know what she was doing. “It got better once I showed them I was willing to work hard and do the same things they were doing—and not

say ‘Oh, I’m a girl, can you come help me?’ ” she says.

But even when the guys had come onside, the physical demands of the job were sometimes challenging. On one machine, the operator has to drive while standing and using a shovel to scrape buildup from the drum. “It was hard for me because I wasn’t that strong,” says Keela. “But you develop that upper body strength. It doesn’t take long when you work at it.”

Keela did road construction for three seasons. In the winters she worked at miscellaneous jobs while upgrading her math so she could go back to school. One of her jobs was in the service department of a car dealership. Keela was promoted from answering phones all the way up to dispatching the work—a job that required a solid understanding of what repairs were required and how different tasks would affect the technicians’ schedules.

### **Would you like your job to help finance a passion or hobby?**

Find out what various occupations and career choices are likely to pay at [alis.alberta.ca/wageinfo](https://alis.alberta.ca/wageinfo). WAGEinfo provides wage and salary information for more than 400 occupations.

**“I like a challenge. When you reach the point where you’ve mastered everything, the job becomes unfulfilling.”**

Keela’s love of cars and her ability to learn on the job came in handy, but she eventually realized she had gone as far as she could. “I like a challenge,” she says. “When you reach the point where you’ve mastered everything, the job becomes unfulfilling.”

Keela began watching the newspaper job advertisements and saw one for oilfield administration. Although the ad was somewhat vague, she applied, landed an interview and found out more about the job and the company. She liked what she learned.

Three-and-a-half years ago, Keela started her career as an administrative assistant in Halliburton’s Motors department. Working on a computer, she tracked and virtually built various tools used in drilling operations. After some months, she transferred to the Measurement While Drilling department, where she eventually moved from administration to repair and maintenance—working in a hands-on position with real, not virtual, tools.

**“I knew what I was doing when I transferred out of the Motors department. I wanted to work with tools, and I knew I’d have a better chance of getting the job I wanted if I changed departments. I set a goal for myself. I wanted to be an instrument mechanic. And that’s what I achieved.”**

Keela’s job is an essential part of Halliburton’s operations. The tools she works on are the “brains” of a drilling operation, telling other tools what to do and reporting back to the surface with information about the distance, temperature and type of material that’s being drilled through.

“Each tool needs to be recalibrated on a regular schedule, after 500 to 2,000 hours of operation,” Keela explains. “If you go past that,

you’re putting your tools at risk of wearing out or breaking down. And if you have a failure down the hole, that could cost the company \$250,000 to \$500,000.”

In making the transition from administration to hands-on work, Keela relied on lessons learned from her first job on the road crew. She showed an interest and learned on the job, going into the repair and maintenance shop and lab whenever she had a spare moment. By the time the mentor who showed her the ropes quit the company, Keela already knew his job.

That wasn’t lost on her supervisor. Although Keela didn’t have certification as an instrumentation technician or electronics engineer technologist—something that’s usually earned at a school such as NAIT or SAIT—she got the job.

“I knew my co-workers were asking questions,” she recalls. “I overheard people wondering if a girl could do this. Would it be too hectic with the on-call shifts. But I never talked to anybody about what they were saying. I just kept doing what I was doing. And eventually, the people who doubted my abilities at the start were coming to me for help.”

More than a year after her promotion, Keela says she’s happy in her new job, and her co-workers are happy with her, too. “I really



Keela applies her aptitude for mechanics at the Halliburton lab, where she tests and calibrates specialized drilling equipment.

believe that my hard work and determination are only partly responsible for why I am where I am today,” says Keela. “God has truly been good to me.”

And the woman who likes a challenge is keeping an eye on her future. To prepare herself for supervisory roles down the road, Keela is taking a quality management certificate at NAIT, with her company’s support. She’s also looking forward to in-house training in Halliburton’s overseas headquarters in Houston, Dubai or Tewkesbury, England. And to more summers spent on the racetrack.

Keela says her love of racing comes from her husband and from her own competitive streak. “I started dating my husband in high school. We met in mechanics class,” she says. “He had an old muscle car, and he took me out to the track all the time. I just grew to love it. And I figured, well, if I’m out here all the time anyway, I want to be racing.”

With just a handful of women racing cars alongside her, Keela’s hobby is as non-traditional as her job. And Keela occasionally runs into male drivers who assume they’ll win just because she’s a woman. “When I win, they can get right mad. They don’t like losing, never mind to a girl,” she remarks.

Does Keela take it personally?

“No, not at all. Those people would be like that no matter what. It’s too bad, because

nobody can win all the time. It’s not like a regular sport: if you make one mistake, you’re typically done for the day.”

On the racetrack or on the job site, Keela lives by a Theodore Roosevelt quote she keeps in her wallet. “Do what you can, with what you have, where you are,” she says. “That’s never failed me.” ■



Keela lines up her 1971 Dart during time trials before heading into a racing competition at the Rocky Mountain Nationals in Edmonton.

## What’s involved in a career as an instrument technician?

### Duties

Instrument technicians install, maintain and repair instruments that are used in industrial and commercial processing—including oil and gas drilling. Specific duties include installing and inspecting instruments, problem-solving, determining test and maintenance procedures, conducting risk assessments, consulting with design engineers and training apprentices.

### Working Conditions

Working conditions vary widely depending on the job. Instrument technicians who work in manufacturing may encounter confined or high places, noise, dust, unusually cold or warm conditions, and hazardous substances.

In some industries, instrument technicians do shift work and on-call shifts. Heavy lifting and working with lasers and radiation equipment may be required.

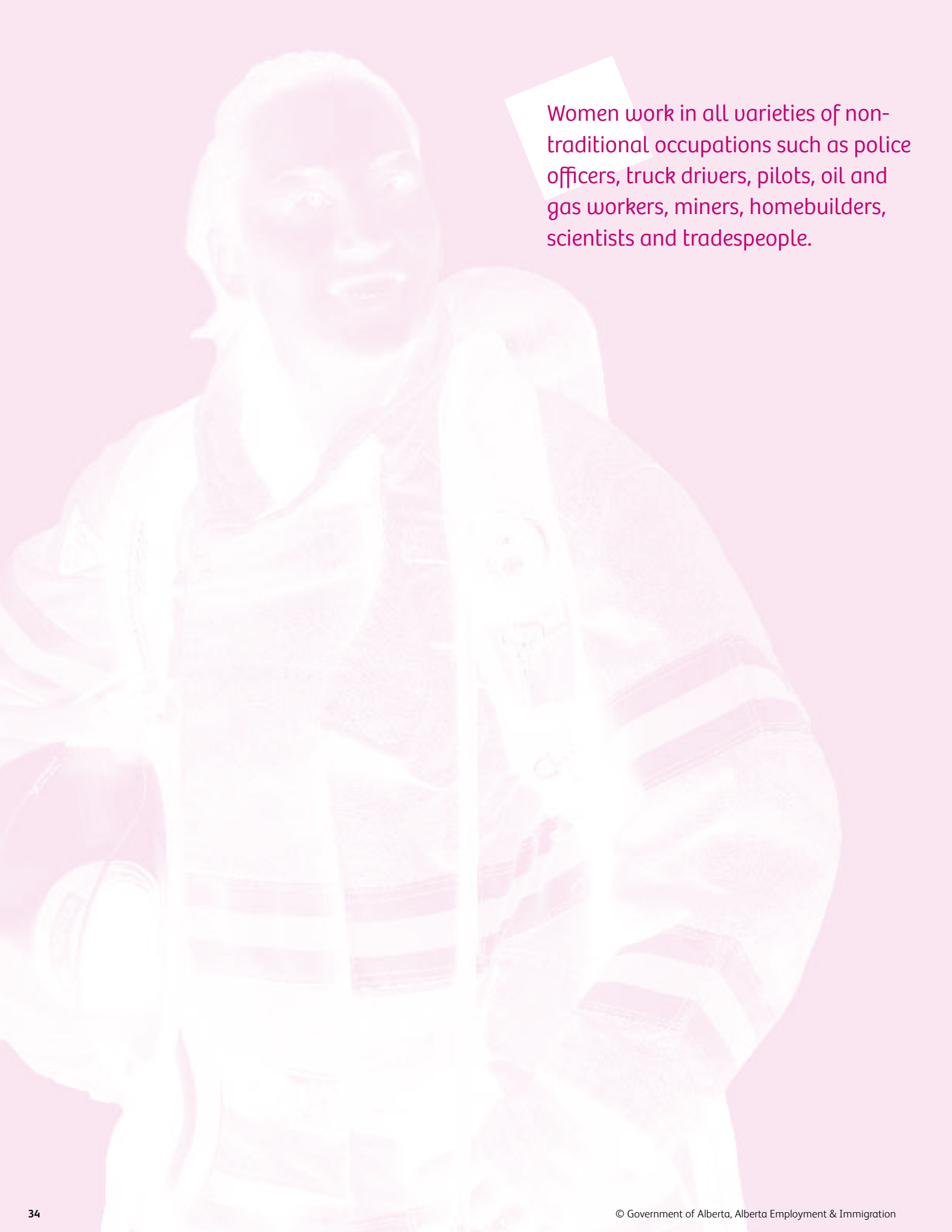
### Personal Characteristics

Instrument technicians need good communication and mathematical skills, patience, manual dexterity and mechanical abilities. They should enjoy solving problems, paying attention to details, keeping up to date and working with little direction or supervision.

### Educational Requirements

Instrument technicians who work in Alberta must be registered apprentices or certified journeymen, or have equivalent training and experience.

**For more information, see the instrument technician profile, along with other occupational profiles, at [alis.alberta.ca/occinfo](http://alis.alberta.ca/occinfo).**

A woman in a firefighter's uniform, smiling and holding a fire hose. The image is semi-transparent and serves as a background for the text.

Women work in all varieties of non-traditional occupations such as police officers, truck drivers, pilots, oil and gas workers, miners, homebuilders, scientists and tradespeople.

# Finding an Occupation That Fits

## Step into a fulfilling career

With thousands of occupations to choose from, how do you figure out which one is best for you?

Career planning experts recommend following these steps:

**1 Get to know yourself.** Take stock of your skills, values, talents and strengths, and figure out what you want from life and from work.

Knowing yourself can be the key to planning a successful career. But where do you start? Check out *Assessing You: The First Step in Career Planning*, available at [alis.alberta.ca/publications](http://alis.alberta.ca/publications). This self-assessment workbook can help you learn which of your skills and assets can help you succeed.

**2 Gather information and explore your options.** Talk to people in your preferred occupation to find out what a typical day on the job is like. Research an occupation you're interested in. Volunteer or work part time in your field of interest to get some first-hand experience. Find experts who can help.

For a list of resources that can help you plan your career, explore fulfilling work opportunities and determine the education you need, see resources by topic starting on p. 37.

**3 Develop a plan.** Once you've chosen an occupation, set goals to take you where you want to go. Make your goals SMART—specific, measurable, attainable, results-oriented and time-targeted. And be specific. Just saying you'll "make a career change" is too general. Rather, set out exactly what you'll do in a specific statement—like "enrol in an apprenticeship program by next spring."

For tips on planning your work and working your plan, check out the tip sheet "Career Planning: A Work in Progress" at [alis.alberta.ca/tips](http://alis.alberta.ca/tips).

**4 Do it!** Remember Brenda Holder's mantra? "Feel the fear and do it anyway."

Put your plan into action. You can always make adjustments along the way.

"It is one thing to dream about something and quite another to realize it. Shaping and forming that dream into action does not require genius or even great ability. Achieving any goal starts with taking an action, and then the next one, and so on.

Don't be afraid to take that first step. Once you do, all kinds of doors will open. Don't let age, social status or gender hinder you. You can make life better for yourself and for others. We all face obstacles—don't let them define you or your life path.

So: start planning, asking questions and considering your options. Be willing to learn, grow and change (including your direction!). Be creative—write it down, draw it out, cut out pictures and pin them on your walls. Become the kind of person that makes your dreams reality!"

—Darlene Dudley

Entrepreneur and author of *It's a man's world...or is it? A practical handbook for women in non-traditional careers*



# Resources

There are a number of great resources—people, publications and websites—that can help you find a job or plan your career in a non-traditional occupation.

The first section of this chapter lists the resources you can access through Alberta Employment and Immigration. The section beginning on p. 37 lists resources alphabetically by topic area (family supports, financial help and information, and so on).

## Alberta Employment and Immigration (AE&I)

Alberta Employment and Immigration (AE&I) provides career and workplace information to Albertans, along with financial and health benefits, child support services and employment training support to Albertans in need. The department also provides programs and services to support workplaces that are safe, healthy, fair and stable for employees and employers alike. For general information about the labour market and workplace topics, visit [employment.alberta.ca](http://employment.alberta.ca).

You can access the department's career, workplace and labour market information in one of three easy ways: click, call or come in.

### Click

#### Alberta Learning Information Service (ALIS) website

[alis.alberta.ca](http://alis.alberta.ca)

ALIS is Alberta's online source for career, education and jobs information. Here are some of the many resources you'll find:

**OCCinfo**—job descriptions, educational requirements, salary information, employment and advancement opportunities, and projected growth data for more than 530 occupations. Search by occupational title, interest, subject, industry and more.

**EDinfo**—information on Alberta post-secondary schools and programs and on distance learning options available in Western Canada.

**WAGEinfo**—wage and salary information by occupation, geographic area and industry group.

**CERTinfo**—answers to common questions about certification and registration requirements for regulated professions and trades.

**eProducts & Services**—more than 60 career, learning and employment publications are available. Most are free, and many can be downloaded as PDF files.

**Tip Sheets**—more than 150 easy-to-read articles on career, learning and employment topics can be downloaded from [alis.alberta.ca/tips](http://alis.alberta.ca/tips). Scroll down to Tips by Topic and search by topic.

### Call

#### Alberta Career Information Hotline

The Alberta Career Information Hotline is a career consulting and referral service. Hotline staff can answer your questions about

- career planning
- educational options and funding
- occupational descriptions
- labour market information
- work search skills
- the workplace

Phone:

780-422-4266 (Edmonton)

1-800-661-3753 (toll-free)

Hours: 8:15 a.m. to 4:30 p.m., Monday to Friday

### Come in

#### AE&I service centres

The department's service centres provide information on occupations, career options, finding work, education programs and funding. To locate a service centre near you, call the Alberta Career Information Hotline or visit [alis.alberta.ca](http://alis.alberta.ca) and scroll to *Career Services Near You*.

# Resources by topic

## Career planning and labour market information

### AE&I publications

To view, order or download the following resources, visit [alis.alberta.ca/publications](http://alis.alberta.ca/publications).

*Assessing You: The first step in career planning* (formerly the *Skills Plus Handbook*)

*Career Planner: Choosing an occupation*

*A Guide for Midlife Career Moves*

*Going Somewhere? Live/Learn/Work*

*Making Sense of Labour Market Information*

### General publications

*It's a man's world...or is it? A practical handbook for women in non-traditional careers* by Alberta author Darlene Dudley, published by Our House Publishing, 2004.

Web: [darlenedudley.com](http://darlenedudley.com)

## Education and training

To view, order or download the following resources, visit [alis.alberta.ca/publications](http://alis.alberta.ca/publications).

*Adult Back to School Planner*

*Education and Training Planner*

*Time to Choose...a post-secondary education program*

### EDinfo

Find information on Alberta post-secondary schools and programs and on distance learning options available in Western Canada.

Web: [alis.alberta.ca/edinfo](http://alis.alberta.ca/edinfo)

## Engineering (see also Science)

### Association of Professional Engineers, Geologists and Geophysicists of Alberta (APEGGA)

Professional organization that regulates, licenses and supports its members.

Web: [www.apegga.com](http://www.apegga.com)

Phone: 1-800-661-7020 (toll-free)

### Canadian Engineering Memorial Foundation

Promotes engineering as a career choice and provides scholarships.

Web: [cemf.ca](http://cemf.ca)

Phone: 1-866-883-2363 (toll-free)

## Entrepreneurship

### Self-Employment: Is it for me?

View, order or download this publication at [alis.alberta.ca/publications](http://alis.alberta.ca/publications).

### Aboriginal Business Canada

Helps Aboriginal entrepreneurs and organizations achieve their business goals.

Web: [ainc-inac.gc.ca](http://ainc-inac.gc.ca)

(click on Economic Development, then choose Economic Programs and scroll to the link for Aboriginal Business Canada)

Phone: 780-495-2954

### Alberta Self-Employment Program

Offers business start-up training and coaching for qualified clients.

Web: [employment.alberta.ca/selfemploymentprogram](http://employment.alberta.ca/selfemploymentprogram)

Phone:

780-644-5135 (Edmonton)

1-866-644-5135 (toll-free)

### Alberta Women Entrepreneurs

Offers advice, business skills development, financing and networking opportunities for women in business.

Web: [awebusiness.com](http://awebusiness.com)

Phone: 1-800-713-3558 (toll-free)

### Apeetogosan Métis Development Inc.

Provides support and financial assistance to Métis entrepreneurs.

Web: [apeetogosan.ab.ca](http://apeetogosan.ab.ca)

Phone: 1-800-252-7963 (toll-free)

### The Business Link

Your first stop for small business information and services.

Web: [canadabusiness.ca/alberta](http://canadabusiness.ca/alberta)

Phone: 1-800-272-9675 (toll-free)

780-422-7722 (Edmonton)

403-221-7800 (Calgary)

TTY only: 1-800-457-8466

### Enterprising Mom's Network

Provides education, support and networking for mom entrepreneurs.

Web:

[enterprisingmomsnetwork.com](http://enterprisingmomsnetwork.com)

Phone: 1-866-294-4442 (toll-free)

### Rocket Fuel for Your Biz

Online, self-paced learning modules designed to guide you through the entrepreneurial process.

Web: [alis.alberta.ca/RocketFuel](http://alis.alberta.ca/RocketFuel)

### Women's Executive Network

Networking, development and resources for executive-minded women.

Web: [www.wxnetwork.com](http://www.wxnetwork.com)

Phone: 1-866-465-3996 (toll-free)

# Resources by topic continued

## Family supports

### ***Becoming a Parent in Alberta***

For answers on maternity, parental leave and Employment Insurance benefits, view, order or download this resource at **employment.alberta.ca/es** (click on Publications from the left-hand menu).

### **Alberta Adult and Child Health Benefit**

Helps with health care needs of families with limited incomes.

Web: **employment.alberta.ca** (click on Family Supports, then Health Benefits)

Phone:  
780-427-6848 (Edmonton)  
1-877-469-5437 (toll-free)

### **Alberta Child Support Services**

Helps arrange court orders and family maintenance for Alberta parents with low incomes.

Web: **employment.alberta.ca/css**  
Phone: 310-0000 toll-free and ask to be connected to the local Child Support Services office in your area.

### **Alberta Child Care Subsidy Program**

Provides financial assistance for child care to Alberta families with preschool children.

Web: **child.gov.ab.ca** (click on Programs and Services and choose Child Care)

Phone:  
780-427-0958 (Edmonton area)  
1-866-714-5437 (toll-free)

### **Alberta Child & Youth Services—Women’s Issues**

Offers programs and services to help provide nurturing, safe environments for children. Publishes the *Women’s Organizations of Alberta Directory*.

Web: **child.alberta.ca**

Phone:  
780-422-4304 (Edmonton area)  
310-0000 toll-free, and enter the 10-digit Edmonton telephone number  
Hours:  
Monday to Friday 8:15 a.m. to 4:30 p.m.

### **Parent Link Centres**

Information and support for parents and caregivers.

Web: **parentlinkalberta.ca**

Phone: 310-0000 toll-free to contact the centre in your area

### **YWCA**

Offers a variety of programs and services that provide skills and opportunities for women and their families.

#### **Calgary**

Web: **ywcaofcalgary.com**

Phone: 403-263-1550

#### **Edmonton**

Web: **ywcaofedmonton.org**

Phone: 780-423-9922

## Financial help and information

### **Student Funding**

Visit **alis.alberta.ca/studentsfinance** for videos, PowerPoint presentations and booklets to help plan and obtain financing for post-secondary education.

Resources include

*What’s Next: Planning and Financing your Post Secondary Education*

*Owner’s Manual: A Guide to Financing Your Education*

*Just the Facts: A Short Guide to Students Finance*

*Quick Tips: A Companion to Your Student Financial Assistance Application*

*Repayment Handbook: Strategies for Paying Back Your Student Loan*

*Information sheets*

*Student Loan Basics*

*Helping Your Child Plan*

*Budgeting Tips*

Web: **alis.alberta.ca/studentsfinance**

Phone:  
780-427-3722 (Edmonton)  
1-800-222-6485 (toll-free)

### **Alberta Works Income Support Program**

Provides income support to help people meet basic food, clothing and shelter needs for an interim period. People who are eligible for the program may also receive health benefits, help to obtain child support payments, and information and training to help them find a job.

Web:  
**employment.alberta.ca/albertaworks**

Hours: Advisors available 24 hours a day, seven days a week

Phone:  
780-644-5135 (Edmonton area)  
1-866-644-5135 (toll-free)

## Alberta Scholarship Programs

Information on post-secondary scholarships and bursaries and how to apply for them.

Web: [alis.alberta.ca/scholarships](http://alis.alberta.ca/scholarships)

Email: [scholarships@gov.ab.ca](mailto:scholarships@gov.ab.ca)

Phone:

780-427-8640 (Edmonton area)

310-0000 toll-free and enter

780-427-8640

## Lifelong Learning Plan

Canada Revenue Agency program that allows withdrawing from RRSPs to finance education for you or your spouse.

Web: [cra-arc.gc.ca](http://cra-arc.gc.ca) (enter “lifelong learning plan” into search box)

Phone:

1-800-267-6999 toll-free (Tax Information Phone Service)

TTY only: 1-800-665-0354

## Human rights

### Alberta Human Rights and Citizenship Commission

Works to foster equality, reduce discrimination and protect Albertans from discrimination.

Web: [albertahumanrights.ab.ca](http://albertahumanrights.ab.ca)

Phone:

780-427-7661 (north of Red Deer)

403-297-6571 (Red Deer south)

310-0000 toll-free, and enter the local area code and phone number

TTY only:

1-800-232-7215 (toll-free)

780-427-1597 (Edmonton)

403-297-5639 (Calgary)

## Job search and resumé preparation

Visit [alis.alberta.ca/jobseekers](http://alis.alberta.ca/jobseekers) for access to a database of job postings and job search resources. You'll also find links to

- Alberta Work Search Online, for information on how to use the Internet to search for work opportunities.
- e-Resumé Review, a service provided by the Career Information Hotline, where you can submit your resumé to Hotline staff for specific feedback.

View, order or download the following job search resources at [alis.alberta.ca/publications](http://alis.alberta.ca/publications):

- *Advanced Techniques for Work Search*
- *Job Seeker's Handbook: An introductory guide to finding work*
- *Workability: What you need to get & keep a job*

### Canada-Alberta Job Order Bank Service (JOBS)

Internet-based federal-provincial job bank service for job seekers.

Web: [employment.alberta.ca/jobs](http://employment.alberta.ca/jobs)

### Youth Connections

A free service that connects young people with businesses looking for employees.

Web: [employment.alberta.ca/youthconnections](http://employment.alberta.ca/youthconnections)

Phone: 310-0000 toll-free and ask to be connected to the Youth Connections office near you

## Life transitions

### *Change and Transitions: The path from A to B*

View, order or download this resource at [alis.alberta.ca/publications](http://alis.alberta.ca/publications).

## Logistics

### Canadian Institute of Traffic and Transportation

Promotes career path development for transportation logisticians, including professional certification.

Web: [citt.ca](http://citt.ca)

Email: [info@citt.ca](mailto:info@citt.ca)

Phone: 1-416-363-5696 (Toronto)

### Women in Logistics

Supports career development for women in the supply chain logistics profession.

Web: [womeninlogistics.com](http://womeninlogistics.com)

Phone: 1-877-363-3005 (toll-free)

# Resources by topic continued

## Science

### Alberta Women's Science Network

Supports women in engineering, science and information technology.

Web: [www.awsn.com](http://www.awsn.com)

Email: [awsn@awsn.com](mailto:awsn@awsn.com)

Phone: 403-282-6431

### BioTalent Canada

Supports career development in bio-technology fields.

Web: [biotalent.ca](http://biotalent.ca)

Phone: 1-866-243-2472 (toll-free)

### *Becoming Leaders: A Practical Handbook for Women in Engineering, Science and Technology*

By Canadian authors F. Mary Williams and Carolyn J. Emerson. Published in 2008 by the American Society of Civil Engineers.

ISBN 10# 078440920X, ISBN 13# 780784409206

### Canadian Coalition of Women in Engineering, Science, Technology and Trades

Promotes and celebrates women in science, engineering, trades and technology.

Web: [ccwestt.org](http://ccwestt.org)

Email: [info@ccwestt.org](mailto:info@ccwestt.org)

### Women in Scholarship, Engineering, Science and Technology (WISEST)

Provides role models, mentors, conferences, hands-on experience programs, networks, and the *Set for Success Speaker and Networking* series (offered jointly with Alberta Women Entrepreneurs).

Web: [www.wisest.ualberta.ca](http://www.wisest.ualberta.ca)

Email: [wisest@ualberta.ca](mailto:wisest@ualberta.ca)

Phone: 780-492-1842

## Trades and Apprenticeship

### Alberta Apprenticeship and Industry Training

Comprehensive guide to trades, apprenticeship and industry training in Alberta.

Web: [tradesecrets.gov.ab.ca](http://tradesecrets.gov.ab.ca)

Phone: Call 310-0000 toll-free and ask to be connected to your local Apprenticeship and Industry Training office

### Alberta Regional Council of Carpenters and Allied Workers

Good source of information on carpentry and allied trades, including millwrights and roofers.

Web: [albertacarpenters.com](http://albertacarpenters.com)

Phone: 1-800-272-7905 (toll-free)

### Building Trades of Alberta

Trade union organization providing services such as job referrals, training, pension and health benefits.

Web: [buildingtradesalberta.ca](http://buildingtradesalberta.ca)

Phone: 780-421-9400 (Edmonton)  
403-279-9500 (Calgary)

### Christian Labour Association of Canada

An independent labour union that applies social principles of justice, respect and dignity, representing workers in many sectors.

Web: [clac.ca](http://clac.ca)

Phone: 1-877-863-5154 (Edmonton)  
1-866-686-0288 (Calgary)  
1-877-792-5292 (Fort McMurray)

### Construction Owners Association of Alberta

Members of the Alberta construction community with shared values on best practices and continuous improvement in the construction industry.

Web: [www.coaa.ab.ca](http://www.coaa.ab.ca)

Email: [coaa-mail@coaa.ab.ca](mailto:coaa-mail@coaa.ab.ca)

Phone: 780-420-1145 (Edmonton area)

### Merit Contractors Association

Supports open shop construction and the training, development and well-being of construction industry workers, including construction "boot camp" training.

Web: [meritalberta.com](http://meritalberta.com)

Phone: 1-877-637-2254 (Calgary toll-free)  
1-888-816-9991 (Edmonton toll-free)

### RAP—Registered Apprentice Program

Gives a head start on apprenticeship before leaving high school.

Web: [tradesecrets.gov.ab.ca](http://tradesecrets.gov.ab.ca) (enter "RAP" in search box or click on Working in Alberta, then Learning a Trade)

Phone: 310-0000 in Alberta and ask to be connected to your local Apprenticeship and Industry training office

TTY only: 780-427-9999 (Edmonton)  
1-800-232-7215 (toll-free)

### Women Building Futures

Provides women with training and job retention supports in construction, oil and gas jobs and apprenticeships.

Web: [www.womenbuildingfutures.com](http://www.womenbuildingfutures.com)

Phone: 780-452-1200 (Edmonton area)  
1-866-452-1201 (toll-free)

## Thinking about your future?

Definitely. And wondering —  
What do I want from my career?  
What jobs are out there? Is continuing  
my education and training the right  
move for me? Find the answers at ALIS.  
Your next steps are just a click away.



# alis.alberta.ca

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# What draws women to a non-traditional career path?

Seven Alberta women share the challenges, rewards and surprises they discovered in their non-traditional occupations. The stories of their journeys—choices they made, obstacles they overcame and dreams they pursued—will inspire you.

Career information and key contacts for women interested in non-traditional occupations are also included.

