

Industry Profiles

Professional, Scientific and Technical Services Industry

A man with grey hair, wearing a dark suit, white shirt, and patterned tie, is smiling and talking on a mobile phone. He is gesturing with his right hand. The image is semi-transparent and overlaid on a light blue gradient background.

Revised: February 2008

Alberta

Employment, Immigration
and Industry

Overview:

The Professional, Scientific and Technical Services industry¹ in Alberta includes enterprises that make knowledge and skills available to other organizations or to the public, often on a project basis.

For example, they may provide:

- legal services and accounting and related services;
- architectural, engineering and related services;
- surveying and mapping services;
- graphic, industrial or computer systems design services;
- management, scientific and technical consulting services, research and development services;
- advertising, public relations or market research services;
- translation services; and
- veterinary services.

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¹ North American Industry Classification System (NAICS) major group 54

Section A: Business Environment

1. 2006 Employment and Unemployment Numbers and Rates:

	Alberta	Manufacturing Industry
Number of employed	1,870,700	142,200
Percent employed in the industry		7.6%
Number of unemployed	66,800	2,700
Unemployment rate	3.4%	1.9%

For more information on employment numbers or for a historical comparison, go to the [Labour Force Survey](#) or [Statistics Canada](#) websites.

2. Industry Growth:

- The Professional, Scientific and Technical Services industry is expected to grow on average 2.8% annually from 2006 to 2011.
- Approximately 20,837 jobs will be created in the forecast period. Employment is expected to increase to 163,079 by 2011.
- This industry is expected to provide 8.8% of all new jobs in Alberta between 2006 and 2011.

For more information, see the [Alberta Modified Canadian Occupational Projection System Outlook](#) (2006-2011) online and the [Alberta Learning Information Service \(ALIS\)](#) website's industry descriptions.

Outlook

Professional, Scientific and Technical Services are generating a large number of jobs in Alberta. In today's increasingly competitive and complex business environment, operating a small business in knowledge-based industries has become increasingly feasible with advances in the Internet and other communications technology. Increased types of specialized expertise will be in high demand.

Energy-related developments, as well as the Alberta Municipal Infrastructure Program, are keeping consulting engineers in high demand. The *Alberta Occupational Demand and Supply Outlook (2006-2016)* forecasts supply shortages for Civil, mechanical, electrical and chemical engineers starting in 2007 through to 2016 and for Technical occupations in electronics and electrical engineering starting as of 2010. Managers in engineering, architecture, science and information are also forecasted to have a supply shortage every year between 2006 and 2016.

The *Alberta Occupational Demand and Supply Outlook (2006-2016)*, also shows that managers in financial and business services occupation will experience an average employment growth rate of -3.1% between 2006 and 2016, with supply surpluses throughout the forecast period.

As global standards in financial reporting move towards harmonization, so does the potential of accountants becoming universal professionals and the prospect for more firms in Alberta to hire more individuals accredited in other countries.

3. Company Size

Establishment Size	Alberta Businesses		Professional, Scientific and Technical Services	
	Number of Employees	%	Number of Employees	%
Less than 20 employees	525,000	34.1%	33,100	35.4%
20 to 99 employees	543,600	35.3%	29,000	31.0%
100 to 500 employees	292,400	19.0%	21,700	23.2%
Over 500 employees	178,900	11.6%	9,500	10.2%

Data Source: Labour Force Historical Review 2006, Statistics Canada

Section B: Human Resources Profile

1. Occupational Information:

Some examples of occupations in the Professional, Scientific and Technical Services industry include:

- accountant;
- architect;
- civil engineer;
- graphic designer; and
- lawyer.

For a complete listing of all occupations related to this industry as well as detailed information on education and skill requirements, visit the [Alberta Occupational Profiles](#) website.

2. Demographics: Age and Gender

According to the Labour Force Survey, the gender break-down in the Professional, Scientific and Technical Services industry is as follows:

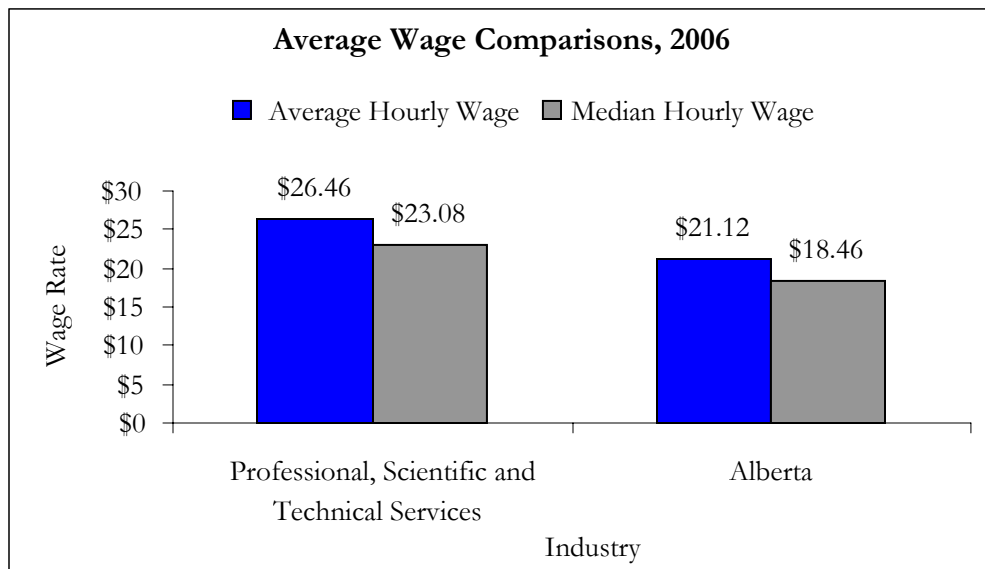
- women employed: 60,400 people, or 42.5%
- men employed: 81,800 people, or 57.5%

In comparison, women accounted for 45.3% and men made up 54.7% of the total employed in Alberta.

Age Characteristics	Alberta Employees		Professional, Scientific and Technical Services Employment	
	Number	%	Number	%
15-24 years	329,600	17.6%	12,300	8.6%
25-54 years	1,286,500	68.8%	108,900	76.6%
55 years and over	254,600	13.6%	21,000	14.8%

Data Source: Labour Force Historical Review 2006, Statistics Canada

3. Wages:



Data Source: Labour Force Historical Review 2006, Statistics Canada

Wage and Salary Information for Selected Occupations

Occupation	Average Hourly Wage			Average Annual Salary
	Starting	After 3 years	Top	
Lawyers and Quebec notaries	\$ 36.68	\$ 36.87	\$ 53.82	\$ 99,500
Human resources managers	\$ 29.30	\$ 41.11	N/A	\$ 74,392
Computer and network operators and web technicians	\$ 16.92	\$ 22.37	\$ 34.59	\$ 50,876
Biologists and related scientists	\$ 13.11	\$ 16.52	N/A	\$ 28,767

Data Source: 2005 Alberta Wage and Salary Survey

Note: N/A due to insufficient response.

For more information on wages, refer to the [WAGEinfo](#) webpage. For job descriptions, duties, required skills and education for specific occupations in the Professional, Scientific and Technical Services industry, visit the [ALIS](#) website.

Section C: Additional Information

1. Links to Selected Industry Associations:

- [Alberta Association of Architects](#)
- [Alberta Research Council](#)
- [Alberta Land Surveyors' Association](#)
- [Association of Professional Engineers, Geologists and Geophysicists of Alberta](#)
- [Certified General Accountants Association of Alberta](#)
- [Chartered Accountants of Alberta](#)
- [Economic Developers Association of Alberta](#)
- [Law Society of Alberta](#)

2. Link to Government Library Database:

<http://www.servicelink.gov.ab.ca/libraries/workplace/>