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The Skills Factor in Productivity and Competitiveness

How Canada's Sector Councils are Helping Address
the Skills and Labour Needs of Employers



The Skills Factor in Productivity and Competitiveness: How Canada's Sector Councils are Helping Address the Skills and Labour Needs of Employers

by *Douglas Watt* and *Natalie Gagnon*

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Table of Contents

GENERAL ISSUES.....	3
KNOWLEDGE AND HUMAN CAPITAL.....	4
WHY SKILLS MATTER	5
THE SKILLS CHALLENGES FACING CANADA.....	6
THE DYNAMICS OF CANADA'S LABOUR MARKET	6
SHORTAGES OF SKILLED WORKERS.....	6
BUILDING WORKPLACE CAPACITY THROUGH SKILLS	9
THE VALUE OF SUPPORTING WORKPLACE SKILLS DEVELOPMENT.....	11
BUILDING HUMAN CAPITAL: THE ROLE OF GOVERNMENT.....	13
ACTIVE LABOUR MARKET POLICIES.....	13
DEVELOPING ADULT WORKER SKILLS	13
ESTABLISHING GOVERNMENTS' SKILLS PRIORITIES	15
CANADA'S WORKPLACE SKILLS STRATEGY	16
SECTOR-BASED APPROACHES TO SKILLS AND LEARNING	17
THE GROWTH OF SECTOR COUNCILS IN CANADA	19
HUMAN RESOURCES CHALLENGES FACING CANADA'S SECTORS	19
THE ROLE OF SECTOR COUNCILS IN CANADA	19
OBJECTIVES OF CANADA'S SECTOR COUNCILS	20
INTERNATIONAL SKILLS DEVELOPMENT INITIATIVES: SECTOR STRATEGIES ARE PROMINENT	24
CONSORTIUM-BASED STRATEGIES	24
SME-BASED TRAINING STRATEGIES	24
CLUSTER-BASED STRATEGIES.....	24
AUSTRALIA'S SKILLS AND TRAINING STRATEGIES	25
AUSTRALIA'S NATIONAL SKILLS SHORTAGES STRATEGY—NSSS.....	27
AUSTRALIA'S NATIONAL STRATEGY FOR VOCATIONAL EDUCATION AND TRAINING—NSVET.....	27
NEW ZEALAND'S APPROACH TO SKILLS AND LEARNING DEVELOPMENT	28
BUILDING MORE EFFECTIVE INNOVATION—USING A SECTOR STRATEGY APPROACH.....	29
THE UK'S DEMAND-LED APPROACH TO EMPLOYERS' SKILLS AND TRAINING NEEDS.....	30
SECTOR SKILLS COUNCILS	31
THE SECTOR SKILLS DEVELOPMENT AGENCY (SSDA).....	33
THE SCOTTISH WAY—PART OF THE UK MODEL WITH A TWIST.....	34
SECTOR SKILLS ALLIANCE SCOTLAND (SSASCOT).....	34
THE ROAD AHEAD.....	35
APPENDIX A: LIST OF CANADA'S NATIONAL SECTOR COUNCILS	36
APPENDIX B: OVERVIEW OF CANADA'S NATIONAL SECTOR COUNCILS	37

GENERAL ISSUES

In today's competitive, global, and constantly-evolving economy there is little doubt that knowledge and skills continue to play a defining role in shaping Canada's economic prosperity and sustainability. Globalization is breaking down the established structures of industry, requiring companies and governments to adjust ever more quickly if they are to survive. As well, local markets are often no longer sufficient to sustain prosperity and the search for export markets becomes more and more critical. New industries such as photonics and bio-technology are emerging at the same time as old industries such as manufacturing are being fundamentally transformed by technologies and new production methods, as still other industries are moving production to 'low cost' countries.

This report provides information that connects skills and learning in the workplace to Canada's economic and social goals of productivity, innovation, competitiveness, and improved quality of life. It is designed to provide an overview into decisions made by business and government in investing in workplace skills and learning strategies, and, in particular, investing in sectoral approaches to skills development.

Skills are the backbone of a successful economy and a measure of a nation's ability to survive in a global marketplace.¹ Human capital represents an asset with the capacity to enhance productivity, innovation and employability.² Today, it is one of Canada's most important sources of economic growth.³ Ultimately, the Canadian standard of living is determined, in large part, by the quality and quantity of skills deployed in the economy—a function of the skills Canadians have and the efficiency within which they are used.⁴ As new

¹ Alison Coleman, Philip Hunter and Jane Simms, *A Director's Guide—Skills: Transforming Business—Towards a Better and More Competitive Workforce* (London: Director Publications Ltd, 2004), p. 5.

² Growth in the quality of labour input in Canada accounted for 25 per cent of the overall growth in GDP per capita over a thirty-five year period (1960 – 1995). Source: Dale Jorgenson and Eric Yip, *Whatever Happened to Productivity Growth?* Harvard University, (June 28, 1998), pp. 13-16, 42-49.

³ See: Industry Canada, *Achieving Excellence: Investing in People, Knowledge and Opportunity*. (Ottawa: Industry Canada, 2002), and *Knowledge Matters: Skills and Learning for Canadians* (Ottawa: Industry Canada, 2002).

⁴ Growth in many OECD countries, Canada included, has occurred over the past number of years for four major reasons: (1) increased or improved use of labour—more people working more productively; (2) the general rise in the educational attainment among workers over the past decade

occupations emerge at the same time as older occupations change or disappear, and as boundaries between occupations and employment structures blur, it is certain that skills will play an increasingly important and pivotal role in Canada's socio-economic success.

Barring improvements to a country's international terms of trade there are really only two ways to increase national wealth: have more people employed and working longer hours, or produce more wealth per hour of work.⁵ It is no wonder that in many countries human capital strategies focusing on skills and knowledge development now occupy centre stage in public policy. If investment in human capital is not maintained through continual retraining and learning initiatives the skills and knowledge that make up the Canadian economy will decline, ultimately leading to lost productivity and performance, and on-going skills gaps and skills shortages.⁶

In order to guarantee an adequate supply of highly skilled people, Canada needs to ensure that more of its citizens gain the right combination of generic, technological and job-specific skills and then effectively apply them. Every person needs a combination of these skills to meet the basic personal challenges of life and work; and every business needs employees who possess the necessary skill sets to compete successfully against local, national and international competition.

Individuals who are able to use and apply their skills and knowledge add to a company's or economy's

and a half; (3) investment in physical capital—including technology which requires that employees have more and better skills; and, (4) a rise in multi-factor productivity (MFP)—where a combination of better skills and better technology leads to more valuable output being produced through efficiencies in operations and innovation outputs. See: Dirk Plat, "Innovation in the New Economy," *ISUMA*, (Spring 2002), pp 54-61.

⁵ Pierre Frotin, *Canadian Productivity: When Do We Catch Up?* ISUMA (Spring 2002), pp. 47-51.

⁶ Labour shortages are of particular concern to small and medium-sized enterprises (SMEs)—the main source of job creation in Canada for the past decade. Lacking human capital, many businesses choose to pass on growth opportunities—a high price to pay for a business and for the economy in general. In 2002, it is estimated that 265,000 full-time jobs across Canada remained vacant within SMEs due to a lack of suitable candidates, illustrating the labour market's failure to match the supply and demand of labour. Andreea Dulipovici, *Labour Pains: Results of CFIB Surveys on Labour Availability* (Canadian Federation of Independent Businesses, April 2003), pp. 1 – 2.

productivity equation—as their skills and knowledge are transformed into goods and services.

According to the Bank of Canada, one common measure of an economy's productivity—that is, how efficiently an economy transforms its labour, capital, and raw materials into goods and services—is its labour productivity, which basically accounts for not only how hard but also how smart people work.⁷ Labour productivity is, in essence, a measure of the extent to which Canadian businesses and industries are able to take advantage of better education, training, management, equipment, and technology to increase the amount of production from workers.⁸ Productivity growth, therefore, allows real wages to increase by lowering prices, thus leading to real improvements to one's standard of living. In effect, there is a *continuous skills cycle* at work: gaining skills and competencies enables Canadians to be productive citizens; productive citizens stimulate trade and innovation; and trade and innovation contribute to improving the standard of living and quality of life in Canada. It stands to reason, therefore, that if Canada is committed to enhancing the standard of living and quality of life of its citizens then the acquisition, development, and utilization of new skills and competencies is a good foundation to build upon.

Knowledge and Human Capital

In a 2002 paper prepared for the TD Forum on Canada's Standard of Living, Thomas J. Courchene suggests that today's knowledge and information revolution is “privileging skills and human capital in much the same way as the industrial revolution privileged physical capital.”⁹ Among the implications that flow from this are:¹⁰

- The returns to human capital are rising in both absolute and relative terms. In other words, those individuals who have access to, and take advantage of learning and skills development can

reap benefits, whereas those that do not will be left behind; and

- If we want to ensure that the bottom third of our labour force is not condemned to (substandard) wages we must correspondingly ensure that they have greater access to skills and human capital.

Interestingly, Courchene pointedly notes that, today, human capital policy is emerging at one and the same time to be the appropriate social policy and the appropriate economic policy for an information era.¹¹

“With knowledge progressively at the cutting-edge of competitiveness and wealth creation, with enhancing skills and education as the key to addressing income inequality and social cohesion, and with information empowerment as the *sine qua non* of meaningful citizenship, a societal commitment to a human capital future for Canadians emerges as the principal avenue by which to promote both competitiveness and cohesion. It is this combination of knowledge and human capital that must become the cornerstone for sustainable advances in our individual and collective living standards”.

This report:

- Examines the value and importance of investing in workplace skills and the role it plays in creating a productive and competitive workforce.
- Highlights the role that government plays in establishing workplace skills priorities and strategies, and in promoting the development of human capital.
- Explores the growth of Sector Councils in Canada and international sector skills development initiatives.
- Provides an overview of the role that Sector Councils in Canada play and the programs and services they offer.

⁷ Bank of Canada, *Productivity—Backgrounder*.

<<http://www.bankofcanada.ca/en/backgrounders/bg-p4.htm>>

⁸ It is labour productivity that plays the dominant role in how fast the actual incomes of workers improve (which, in part, assists in making one's standard of living better).

⁹ Thomas J. Courchene is the Jarislowsky-Deutsch Professor of Economic and Financial Policy at Queen's University, and the Senior Scholar, at the Institute for Research on Public Policy, Montreal.

¹⁰ Thomas J. Courchene, *Knowledge and Human Capital: The Winning ca.combo For the Information Era*. (Conference Version). Paper prepared for the TD Forum on Canada's Standard of Living (Ottawa: October 7-8, 2002).

<www.td.com/economics/standard/full/courchene.pdf>

¹¹ *Ibid*, pp. 7-8.

WHY SKILLS MATTER

Skills development, and skills formation policies, on their own, cannot overcome structural weaknesses in Canada's economy, solve unemployment, create jobs, address the social consequences of unemployment for individuals and communities, or shift poorly performing businesses or sectors to a higher level. However, to be most effective, skills need to be stretched from a predominately inward-looking education and training focus to a broader context of work and community. Likewise, skills development policy needs to be incorporated into a wider policy context which includes education and training policy, but also addresses questions of industry policy, innovation policy, economic development, employment policy and social policy.

All sectors of the Canadian economy are dependent on the production, distribution and use of knowledge and skills—be it high-tech manufacturing industries, the natural resources industries, the construction sector, or in the service industries like tourism and retail trade. It is through technical and technological innovation, product differentiation and organizational innovation that the primary source of value creation and higher-order competitive advantage is found. Current research shows that countries that demonstrate more innovation are wealthier and experience faster economic growth than those that are less innovative.¹² Likewise, more innovative companies often grow more quickly, experience higher profitability levels, and capture greater market share than less innovative ones.¹³

Although the factors governing a company's economic success in the past—such as economies of scale, low production costs, availability of resources and low transportation costs—still contribute to a company's economic success, today, a much heavier emphasis is being placed on knowledge and the resource that produces it: people.¹⁴ Skills and knowledge are the keys to success and the continued productivity and

competitiveness of a country, a company, and an individual. Yet, as economies move towards a value-added, skills-based economy, both individuals and employers face increasingly daunting skills challenges. These challenges include: skills gaps, which refer to deficiencies in an existing workforce; and skills shortages, which refer to the inability to recruit individuals with requisite skills.

As the relative importance of knowledge-intensive sectors in the Canadian economy continues to grow, the relative demand for more highly educated and skilled workers will rise. Thirty years ago, for example, only 19.2 per cent of workers were employed in high-skilled occupations, whereas in 1981 and 1986, high-skilled occupational employment accounted for 23.5 per cent and 26.0 per cent of total employment, respectively.¹⁵ The Government of Canada's Innovation Strategy, *Knowledge Matters—Skills and Learning for Canadians*, released in 2002, noted that by 2004, more than 70 per cent of all new jobs created in Canada would require some form of post-secondary education, 25 per cent of new jobs would require a university degree, and only 6 per cent of new jobs would be held by those who have not finished high school.¹⁶

Knowledge Matters identifies three conditions that are dictating action on skills and learning: the ever-increasing demand for well-educated and skilled people in the economy; the disquieting demographic squeeze that is intensifying current structural shortages of skills in the Canadian economy; and the need to strengthen current learning systems to meet future skills and labour force demands. A clear message from the report is that a *collaborative approach* among all sectors of society is needed in order to strengthen learning in Canada, to develop people's talent, and to provide opportunity for all to contribute and benefit from the knowledge economy.¹⁷

Less than fifteen years ago, the knowledge-based economy could quite easily be equated with specific sectors of the economy, such as information and communications technologies, or with certain regions,

¹² Wulong Gu, Garry Sawchuk and Lori Whewell, *Innovation and Economic Performance in Canadian Industries* (Mimeo) (Ottawa: Industry Canada, 2001) <<http://www.innovation.gc.ca/gol/innovation/site.nsf/en/in04144.html>>

¹³ The Conference Board of Canada, *1st Annual Innovation Report: Building the Future* (Ottawa: The Conference Board of Canada, 1999), p. 25.

¹⁴ *Innovation and Economic Performance in Canadian Industries* (Mimeo) (Ottawa: Industry Canada, 2001) <<http://www.innovation.gc.ca/gol/innovation/site.nsf/en/in04144.html>>

¹⁵ Economic Council of Canada, *Employment in the Service Economy*, 1991, p. 94.

¹⁶ The Government of Canada, *Knowledge Matters: Skills and Learning for Canadians* (Ottawa: Human Resources Development Canada, 2002), p. 8. <<http://www.innovationstrategy.gc.ca>>.

¹⁷ From: *Knowledge Matters: Skills and Learning for Canadians* <<http://www.innovationstrategy.gc.ca>> and, The Conference Board of Canada, *HRDC Best Practices Workshop: Knowledge and Information on Skills and Learning*, (Ottawa: October 2002), p. 3.

like Ottawa's high-tech cluster. Today, however, the knowledge-based economy knows few, if any, industrial or geographic boundaries. All industries, from the trucking industry to manufacturing, to natural resources to international trade depend on new knowledge and the application of this knowledge to improve economic performance (e.g., truck drivers must now be able to use on-board computers and high-tech communications equipment; Canadian artists are using broadband and multimedia technologies in their cultural endeavours; and farmers make use of GPS (Global Positioning System) to perform precision farming practices).¹⁸

THE SKILLS CHALLENGES FACING CANADA

The Dynamics of Canada's Labour Market

The Canadian job market is dynamic. It constantly goes under profound transformations brought on by a host of predominately demand-led pressures, such as the opening up or closing down of local, regional or global markets; service, process, and product innovations; shifting trends and tastes; and changes in commodity prices. Shocks to the economy, like the bursting of the technology bubble, the terrorist attacks on the U.S., or the SARS scare can also act as powerful catalysts of change. The restoration of government surpluses, which can lead to a reinvestment in public services, is another factor that can have a dramatic impact to the labour market.

Since 2000, growth in Canadian jobs has gone from being driven by 'new economy' industries such as technology and electronics, to 'old-economy' industries like resources and housing (leading to spikes in labour demand within mining and construction). This new pattern of industrial growth is having profound implications on such things as the urban-rural distribution of jobs, the education requirements of workers, and in what occupations people can find employment (the occupational distribution of employers). A recent Statistics Canada report, notes that the current natural-resources boom—brought on, in part, by the emergence of China as a global economic powerhouse, sparking a surge in commodity prices, which in turn fuelled growth in the natural resources sector—has resulted in job prospects for youth in rural areas being better than for those in

cities.¹⁹ So far this decade, the mining, construction, and real-estate sectors have driven job growth, another reversal from the 1990s when these industries cut jobs.

Shortages of Skilled Workers

Demographic pressures resulting from a declining birth rate and an aging workforce are contributing to the increased demand for skilled people. According to a recent Conference Board report it is estimated that by 2025, Canada will face a skilled labour force deficit of 1.2 million people.²⁰ In 2011, the first wave of the baby-boomers—a cohort that comprises about one-third of the total Canadian population—is slated to reach the retirement age of 65 years.²¹ With a fall in the proportion of the working population, as a consequence of the aging of Canada's population, the key driver for future improvements in living standards will be productivity growth.²² Already the impact of this phenomenon is being felt in multiple sectors including: health care, construction, education and natural resources.²³ Table 1 illustrates the proportion of workers aged 45 years and older in a number of key industry sectors who, in the next 15 to 20 years, will be retiring.

In 1999, the Canadian Automotive Repair and Service Council (CARS) conducted a labour market study on the automotive repair and service industry and found an emerging and growing skills shortage—predicated by an aging workforce (50 per cent of the industry is 40

¹⁹ Eric Beauchesne, "Job market returns to blue collar roots," *The Ottawa Citizen*, Saturday, March 19, 2005. p. D3.

²⁰ The Conference Board of Canada, *Performance and Potential 2003-04, Defining the Canadian Advantage*. (Ottawa: The Conference Board of Canada), pp. 81-90. After 2010, the Canadian labour force will be hurt on two fronts. First, the replacement of the echo boomers by the millennium busters in the 15-24 age cohort will lead to a decline in the growth of the source population. Second, the participation rate will drop steeply as the baby boomers approach retirement age. The impact on labour force growth is expected to be dramatic, with only 0.5 per cent average annual growth forecast for the 2011-15 period and virtually no labour force growth expected from 2016 to 2025. At this time, firms will face enormous difficulties in recruiting enough young people to replace the retiring baby boomers.

²¹ Derek Burleton and Don Drummond, *Canada's Talent Deficit: Onus on the Private Sector to Attract, Train and Retain Workers*, (TD Economics, September 2001), p.p. 2-3.

²² Department of Finance, *The Budget Plan 2005*, (Ottawa: Her Majesty the Queen in Right of Canada, 2005). p. 115.

²³ Carter Hammett, "The multiple lens effect", *The Toronto Sun*, (January 12, 2005). p. C1-2.

years of age and over; 35 per cent are aged 31 to 40; and only 17 per cent are aged 20 to 30).²⁴

Table 1
Industry Sector Composition by Age Cohort (2001)²⁵

Industry Sector	Proportion 45+ Years	Proportion 55+ Years
Goods-Producing Sectors		
Agriculture	48%	27%
Utilities	40%	6%
Forestry, Fishing, Mining, Oil and Gas (Primary)	35%	9%
Construction	35%	12%
Manufacturing	35%	10%
Services-Producing Sectors		
Educational Services	44%	13%
Public Administration	43%	9%
Transportation and Warehousing	40%	13%
Health Care and Social Assistance	39%	11%
Professional, Scientific and Technical Services	33%	12%
Trade	27%	10%
Information, Culture and Recreation	27%	8%
Accommodation and Food Services	22%	7%
All Industries	34%	11%
Source: R. A. Malatest & Associates Ltd., 2003.		

In 2001, the Canadian Federation of Independent Business noted that 46 per cent of Canadian businesses claimed to have difficulties in finding qualified labour

to meet their staffing needs.²⁶ A survey conducted by the Ontario Chamber of Commerce, in 2003, found that 41 per cent of businesses expected to experience a skilled trade shortage before 2008.²⁷ This shortage of qualified labour translates into significant negative impacts for Canada's small-medium sized enterprises (SMEs). Results from a recent survey indicate that 67 per cent of SMEs' long-term growth potential is harmed by a lack of labour with the right skills.²⁸ Regionally, no segment of the SME sector is left untouched by labour shortages. Manitoba and Alberta have some of the highest incidence of labour shortages, at 59.3 per cent and 54.6 per cent respectively. Companies in the construction and manufacturing sectors are the most concerned with labour shortages, at 59.3 per cent and 54.3 per cent respectively.²⁹

Hiring difficulties are not restricted to any particular occupation either, as demand for management professionals and sales clerks is just as high for skilled manufacturing workers and drivers. The occupations in which employers have the most difficulties hiring, by sector include:³⁰

1. Agriculture: agriculture related occupations, drivers and other transportation occupations.
2. Primary: fishers, forestry workers, and skilled workers in other related occupations.
3. Manufacturing: workers in manufacturing occupations—all skill levels.
4. Construction: workers in the construction area—all skill levels.
5. Transportation and Communication: drivers, occupations in transport trades, warehousing and materials handling.
6. Wholesale: sales and account representatives, sales and customer service clerks, warehousing and materials handling workers.
7. Retail: sales and customer service clerks, sales and account representatives.

²⁴ Canadian Automotive Repair and Service, *Bridging the Gaps: Issues and Challenges Facing the Canadian Automotive Repair and Service Industry*. <http://www.strategis.ic.gc.ca/pics/am/cars_e.pdf>

²⁵ Robert A. Malatest, *The Aging Workforce and Human Resources Development Implications For Sector Councils*, (R. A. Malatest & Associates Ltd., February 2003) p. 15.

²⁶ Doug Bruce and Andreea Dulipovici, *Help Wanted: Results of CFIB Surveys on the Shortage of Qualified Labour*. (February 2001), p. 1. <http://www.cfib.ca/research/reports/sql_e.pdf>.

²⁷ Robert Smol, 'No one thinks about trades,' Toronto Star (Thursday, March 31, 2005). P. K1.

²⁸ Doug Bruce and Andreea Dulipovici, p. 6. The survey referred to is: CFIB, *Hard Facts Survey*, October – November 2000.

²⁹ Ibid, p. 2.

³⁰ *Help Wanted: Results of CFIB Surveys on the Shortage of Qualified Labour*. (February 2001), p. 3.

8. Finance, Insurance and Real Estate: sales and account representatives, sales and customer service clerks, clerical occupations, occupations in management area and professionals.
9. Business Services: computer specialists, occupations in management area and professionals, science graduates, engineers, sales and account representatives.
10. Education, Health and Social Services: occupations in medicine/health, management area, professionals, and clerical occupations.
11. Hospitality, Personal and Other Services: occupations in food serving and preparation field, sales and customer service clerks, occupations in the hotel, tourism and recreation areas.

A portion of the demand for skilled workers is currently being met through the immigration of skilled workers and the temporary entry of workers trained abroad. In 2000, nearly 4,000 investors, entrepreneurs and self employed immigrants came to Canada; and in 2002, nearly 59 per cent (136,525) of new immigrants were classed as economic immigrants in the skilled worker or business immigrant categories. However, there is stiffening competition among other countries for skilled-workers.³¹ And without significant changes to Canada's immigration policies the numbers of skilled workers immigrating to Canada will fall well short of the demand.³²

³¹ Citizenship and Immigration Canada, *Facts and Figures 2002: Immigration Overview*.
<http://www.cic.gc.ca/english/pub/facts2002/immigration/immigration_2.html>.

³² Today, immigrants represent about 30 per cent of all new labour market entrants, and in 2001, 3.2 million people in our labour force were immigrants (not Canadian-born)—fully 20 per cent of the labour force. See: George J. Borjas, "Does Immigration Grease the Wheels of the Labour Market?" and Statistics Canada,
<<http://www12.statcan.ca/english/census01/Products/Analytic/companion/paid/canada.cfm>>.

BUILDING WORKPLACE CAPACITY THROUGH SKILLS

The human resource capacity of any workplace, when properly managed, maintained and utilized, is often one of the biggest and greatest competitive advantages an employer has. However, both employers and individuals require clear evidence of a significant payback—employers need to know that what their employees are learning is linked to better business performance such as increased profits and other bottom-line benefits.

Demand for skill is essentially a derived demand, so a decision made by a company to commit resources—such as funds, facilities and production time—to the development of skills is fundamentally made in the context of the dynamic competitive business environment in which they are operating.

In 2002, across all industries, Canadian organizations spent approximately \$838 per employee on training and development—with the primary industries (particularly natural resources, oil and gas) investing most heavily (at approximately \$1,420 per employee). In second place is the manufacturing industries (\$1,100 per employee), followed closely by professional, scientific, and technical services (\$1,060 per employee). The lowest investment levels in employee training and development are reported in the wholesale/retail trade industries (\$405 per employee), the health/education industries (\$310 per employee), and the accommodation/food services industries (approximately \$120 per employee).³³

Current research points to challenging times ahead given that few employers fully grasp the underlying value and importance of employee training and skills development initiatives; and many employees do not invest in their learning and skills development. It is not that employers and individuals are failing to invest in skills training and development, but rather that market issues and other barriers tend to limit that investment.

- Canadian industry is under-investing in the development of its human resources, and far too few employers are seriously involved in upgrading the skills of their employees—this at a time when

³³ Janice Cooney and Allison Cowan, *Training and Development Outlook 2003—Canadian Organizations Continue to Under-Invest*. (Ottawa: The Conference Board of Canada, 2003), pp. 3-4.

83 per cent of organizations in Canada indicate they are experiencing shortages of skilled labour.³⁴

- The proportion of adult Canadians participating in workplace training has been stagnant since the early 1990s. According to the Organization for Economic Cooperation and Development (OECD), the participation of Canadian workers in formal learning is only 'average' compared with other industrialized countries.³⁵
- In 2002, across all industries, Canadian organizations spent approximately \$838 per employee on training and development. In 2000, this figure was \$859, \$776 in 1998, and \$842 in 1996. These numbers clearly reveal that, year-over-year, direct training and development expenditures have remained relatively flat in Canada.³⁶
- The *Workplace Training Survey*, which is representative of Canadian industry, indicates that 70 per cent of Canadian establishments undertake some sort of training. However, in most firms, training remains informal, and only about 40 per cent have formal training with a defined curriculum and predefined goals.³⁷
- The 2002 *IMD World Competitiveness Yearbook* ranks Canada 12th out of 49 countries in employers' ranking of employee training as a high priority. The 2000 *World Competitiveness Yearbook* states that one of the major weaknesses in Canada is "training." According to the *Yearbook*, Canada ranks 17th out of 47 countries

³⁴ Approximately 35 per cent of Canada's working age population is below the International Adult Literacy Survey (IALS) Literacy Level 3 which is considered a suitable minimum for coping with the demands of everyday life and work. It approximates the skill level required for successful secondary school completion and college entry, and requires the ability to integrate several sources of information and solve more complex problems. Source: *Literacy in the Information Age: Final Report of the International Adult Literacy Survey*. OECD, Statistics Canada, 2000. pp. xi, 160.

³⁵ OECD, *Employment Outlook*, 1999. As cited in: *Knowledge Matters: Skills and Learning for Canadians* (Government of Canada: 2002), p. 39.

³⁶ Janice Cooney and Allison Cowan, *Training and Development Outlook 2003—Canadian Organizations Continue to Under-Invest*. (Ottawa: The Conference Board of Canada, 2003), p. 3.

³⁷ Gordon Betcherman, Norm Leckie and Kathryn McMullen, *Developing Skills in the Canadian Workplace: The Results of the Ekos Workplace Training Survey*, Study No. W/02 (Ottawa: Canadian Policy Research Networks Inc., 1997). p. 45.

in a survey designed to assess whether "employee training is a high priority in companies."³⁸

- McBassi and Company, Inc. suggests that under current systems of accounting and reporting there is a systematic under-investment in the management and development of people—who are seen as costs on the balance sheet without any accompanying reflection of their offsetting future benefits—relative to all other assets inside an organization.³⁹

Simply put, many employers do not have a proper skills and learning strategy in place that sets out what courses might make a difference to individual or company-wide performance; how and when the training will be implemented; and the importance of reviewing its impact. Pressures on time and the bottom line are commonly reported obstacles by companies to participating in skills and learning initiatives. More troubling is the fact that the competitive human resource strategy of many employers is based on a low cost/low added value approach—which perpetuates a low skill/low wage equilibrium in which neither employees nor employers demand higher levels of skills.

The real impact of poor skills on business becomes evident when employees are asked to go beyond the familiar—a challenge that they are often not able to fulfill. In the end, low-skilled and under-skilled employees avoid taking on extra responsibilities or more demanding roles and as a consequence their skills status remains static, as does their productivity rates, and potential earning power.

Over the next 10 to 15 years pressures on Canadian labour markets will remain significant enough to generate a number of market adjustments including:⁴⁰

- Higher real wage growth as employers bid among themselves for increasingly scarce labour. These higher wages will convince some young people to enter the labour force more rapidly and should also help delay retirement.
- Changes to retirement policies as employers entice or encourage employees to continue working past normal retirement age.

- Changes to the workplace environment as human resource departments search for ways to better adapt the workplace to an ageing workforce.
- Changes to the school system as schools are encouraged to be more efficient and effective in terms of graduating potential workers with appropriate skills at an earlier age.
- Changes to the way employers offer and deliver on-the-job training to ensure that their employees possess the required skills.

Skills

The importance of people to the Canadian economy is reflected in the rapid emergence of the corporate human resource function as a company powerhouse for ensuring excellence and enhanced competitiveness. Canadian senior executives have contended for some time now that most of today's business imperatives, such as quality, customer satisfaction and competitiveness, are employee-based and employee-delivered.⁴¹

Practical know-how and ingenuity are at an all-time premium. Skills and knowledge are driving national economic prosperity and, to be able to contribute to today's knowledge economy, everybody—from individuals to companies to the full gamut of industrial and high-tech sectors—needs to build and sustain a high-performance blend of skills, attitudes and behaviours.⁴² Learning is an active process that requires a longer-term perspective on human resource development—a departure from the short-term focus of most current workplace training programs.⁴³

Yet, as new markets emerge and mature markets adjust employers and employees alike will be continuously called upon to use their knowledge and skills in order to develop and deploy new technologies, services, applications and business solutions. Although there is little that individual employers can do to affect the overall state of the economy, there is much they can do to maintain and develop the skills of their employees and promote a learning culture within their places of work. Employers that support the growth and development of their employees—through a multitude

³⁸ *World Competitiveness Yearbook 2000* (Lausanne, Switzerland: Institute for Management Development, 2000).

³⁹ Laurie Bassi and Daniel McMurrer, White Paper: What to Do When People Are Your Most Important Asset. (McBassi & Company, Inc., October 2004), p. 3.

⁴⁰ The Conference Board of Canada, *Performance and Potential 2003-04, Defining the Canadian Advantage*. (Ottawa: The Conference Board of Canada), p. 88.

⁴¹ Prem Benimadhu, *Adding Value: The Role of the Human Resource Function* (Ottawa: The Conference Board of Canada, 1995), p. 1.

⁴² Kurtis Kitagawa, *Building and Sustaining a Culture of Innovation/Entrepreneurialism in Canada for Competitiveness and Growth*, Discussion paper prepared for a Senior Executive Dialogue on Building and Sustaining a Culture of Innovation and Entrepreneurialism in Canada (Ottawa: The Conference Board of Canada, 2001), pp. 1–4.

⁴³ Graham S. Lowe, *Leveraging the Skills of Knowledge Workers*, ISUMA (Spring 2002), pp. 83–84.

of skills training and development initiatives—are the ones most likely to succeed and remain competitive.

The Value of Supporting Workplace Skills Development

Although skills are not an end in themselves, they are a means towards supporting successful companies and organizations. Employers that acknowledge the direct link between skills and business strategies, and act on this knowledge, have a distinct advantage over those employers that fail to make the connection. Employers that focus on enhancing employee capability through rigorous and systematic training programs have noted 58 per cent higher net sales per employee, 39 per cent higher gross profits per employee, and a 15 per cent higher ratio in market-to-book values.⁴⁴

Both employers and employees benefit from workplace training because its applicability to real work situations is often immediate and highly effective. Table 2 highlights some of the common benefits of workplace learning and skills development to employers and employees.

The direct economic benefits realized by employers, through workplace learning, include increased output of products and services, reduced time per task, reduced error rates, a better health and safety record, reduced waste in production of goods and services, increased customer retention and increased employee retention.⁴⁵ Workplace learning also has the potential to produce a variety of indirect economic benefits such as improved quality of work, better team performance, improved capacity to cope with change in the workplace and improved capacity to use new technologies. These indirect economic benefits, although less tangible and more difficult to measure precisely than the direct benefits, have an important impact on organizational performance.

A good example of how investing in human resources can improve productivity is found in a 1990 study of 62 world-wide car assembly plants.⁴⁶ The study found

⁴⁴ Lauri J. Bassi and Daniel P. McMurrer, "Training Investment Can Mean Financial Performance," *Training and Development* (May 1998).

⁴⁵ For a detailed analysis of the benefits to employers and employees, see: M. Bloom, M. Burrows, B. Lafleur and R. Squires, *The Economic Benefits of Improving Literacy Skills in the Workplace*, Report 206-97 (Ottawa: The Conference Board of Canada, 1997).

⁴⁶ International Labour Office, *Learning and Training for Work in the Knowledge Society*. Chapter 1: Towards Knowledge- and Skills-based Economies and Societies: New Objectives and Challenges of Human Resources

that economic performance of those plants, in terms of labour productivity and product quality, proved to be closely associated with the presence of three business strategies: lean production, team work, and innovative human resources management (HRM) practices—of which training for both new recruits and ongoing employees constituted two of the five HRM practices.⁴⁷ In Denmark, companies that introduced process and product innovations, combined with targeted training, were more likely to report output growth (11 per cent versus 4 per cent), and labour productivity growth (10 per cent versus 4 per cent) than those who had not introduced these innovations.⁴⁸

For the individual, being skilled is often positively related to labour force participation and labour market success.⁴⁹ People who develop their skills and apply them in the workforce are likely to have jobs with higher productivity and increased earnings. As well, they are less vulnerable to long-term unemployment.⁵⁰ Skilled employees are better able to adapt to internal changes such as technological upgrades and have enhanced problem-solving abilities. As employees develop professionally, they gain a better understanding of an organization's vision and goals—helping in understanding the overall processes of the company and in their own place in those processes.⁵¹

Development and Training. <http://www.logos-net/ilo/195_base/en/report/ch_1.htm>

⁴⁷ It is important to note, however, that the benefits of the training, in terms of improved productivity, were found to depend strongly on recruitment and remuneration (pay) structures—among other things.

⁴⁸ ILO, <http://www.logos-net/ilo/195_base/en/report/ch_1.htm>

⁴⁹ The idea of human capital was first introduced in the work of Theodore Schultz and Gary Becker "Investment in Human Capital," *The American Economic Review* (1961), where Schultz's central thesis was that human knowledge and skills formed a capital asset, and that the failure to treat human resources explicitly as a form of capital was patently wrong. See: Policy Research Initiative, *Social Capital: Building on a Network-Based Approach* (Draft Discussion Paper) October 2003, p. 3.

⁵⁰ Conference Board research shows that skills can be examined from two complementary points of view: individual development (e.g., achieving individual potential, maximizing personal career opportunities, making successful transitions, and enhancing individual skills) and organizational performance (e.g., developing innovative capacity, leveraging organizational capacity, and increasing productivity). See: National Education and Learning Centre, *the Dual Focus of Skills: Aligning Individual Development with Organizational Performance*, (Ottawa: The Conference Board of Canada), April 2003), p. 1.

⁵¹ Alison Campbell, Natalie Gagnon and Michael Bloom, *Breaching the Barriers to Workplace Literacy* (Ottawa: The Conference Board of Canada, 2001), p. 21.

Table 2
The Benefits of Workplace Learning and Skills Development⁵²

Benefits to Employers	Benefits to Employees
<ol style="list-style-type: none"> 1. Improved productivity and growth—high literacy skills mean a more flexible workforce that can adapt to new technologies and processes quickly and effectively. 2. Improved revenue per employee. 3. Improved income—a company can increase its income by increasing its output. Changing one of four factors—resources, physical capital, technology or <i>human capital</i>—increases output. 4. Improved product cycle times. 5. Cost savings—through improved efficiencies and a reduction in errors. 6. Improved sales. 7. Improved product quality. 8. Improved health and safety records. 9. Improved employee retention—training opportunities can often lead to enhanced employee morale and to a learning culture within a company. 10. Improved knowledge transfer among employees. 11. Better communications—as morale improves due to literacy gains and employees improve their skills, communication within an organization often changes for the better. 	<ol style="list-style-type: none"> 1. Higher income—there is a strong association between literacy skills and income. 2. Lower incidence of unemployment—improved literacy makes employees less vulnerable to layoff and displacement, and if they are laid off they find it easier to get new jobs. 3. Higher labour market participation—well educated and trained individuals have more and better employment opportunities. 4. Increased job security and enhanced job opportunities—workplace learning programs enable employees to work smarter and better and, ultimately, to take on increased responsibilities. 5. Improved self-confidence—employees who improve their literacy skills gain the ability and confidence to empower themselves. 6. More training—individuals with higher literacy skills and/or education are more likely to receive further training. 7. New attitudes—employees tend to experience significant positive changes in attitude when they take part in workplace learning programs. 8. Broader benefits—employees who gain literacy through their workplace take their improved communications and teamwork skills home and into their communities.
<p>Source: The Conference Board of Canada, 2001.</p>	

⁵² Breaching the Barriers to Workplace Literacy. 2001, pp. 10-21.

BUILDING HUMAN CAPITAL: THE ROLE OF GOVERNMENT

Assuring that Canadians have the opportunity to acquire the skills and knowledge needed to compete is a major challenge and concern for government. It can be argued that many of the current skill imbalances are a normal part of the business cycle, and not as evidence of systemic market failure—in most cases, the market adjusts, although there is some lag time before it does so. However, there is mounting evidence that long-term and systemic shortages in some occupations (e.g., manufacturing) are likely to occur over the next three to five years unless action is taken.

Canada is not alone in facing this skills conundrum. In the UK, for example, a 2003 study conducted by the Learning and Skills Council found that one in five employers (22 per cent) said that their workforce's skills were not up to scratch. This figure had a direct impact on the bottom line for a third of employers, who said that it resulted in higher operating costs, orders being lost, and new product development being delayed.⁵³ The study also noted that a fifth of job vacancies—some 135,000—were also going unfilled due to skills shortages, and that employers were losing business to competitors as a result.⁵⁴

In recent years, the Government of Canada has clearly articulated its support for the development of a skilled, adaptable, and innovative workforce—the 2002 national innovation strategy papers, *Knowledge Matters: Skills and Learning for Canadians* and *Achieving Excellence: Investing in People, Knowledge and Opportunity*, are but two recent examples.⁵⁵

Active Labour Market Policies

Many countries have pursued active labour market policies (as opposed to passive labour market policies

such as employment insurance or social welfare) in an effort to offer individuals the opportunity to gain employment after having dropped out of the labour force, help them return to work after a period of unemployment, or give them an opportunities for skills upgrading, retraining and knowledge development—ultimately to help them access new jobs and cope with changes in the knowledge and information economy and society. The Government of Canada is one of these countries (see: *Highlights of Canadian Labour Market Policy*, below, for an overview of some of Canada's more recent active labour market policy initiatives).

Active labour market policies include such activities as job-search assistance, employment services, training for the long-term unemployed, retraining of workers displaced in lay-offs, employment and wage subsidies, and public works programs. Training and retraining programs account for a significant share of expenditures within most active labour market initiatives—accounting for between 40-60 per cent of spending.⁵⁶

Developing Adult Worker Skills

Educating the young, who make-up a large part of the future Canadian workforce yields significant payoffs.⁵⁷ However, investing in youth, alone, is not sufficient. With the majority of the workers of the next couple of

⁵⁶ Evaluations of active labour market policies suggest that any measures taken are more likely to be effective in (re)integrating people into employment when they are given a package of supportive services such as remedial education, job training, job search assistance and direct provision of work experience. Another key component is that the demand for labour is buoyant—as little success can be expected when there is no opportunity for employment. Macroeconomic and microeconomic policies are important factors in improving job prospects because they affect labour demand and supply. <http://www.logos-net.net/ilo/195_base/en/report/ch_2.htm

⁵⁷ The Government of Canada provides funding to the provinces and territories for post-secondary education through cash and transfer payments; for example, it supports access to post-secondary education by providing financial assistance to post-secondary students through the Canada Student Loans Program (\$1.5 billion annually), Canada Study Grants (\$75 million annually); and provides \$300 million annually to support First Nations, Inuit and recognized Innu students who pursue post-secondary education. Through the \$2.5 billion endowment to the Canada Millennium Scholarship foundation the Government provides \$300 million annually in bursaries and scholarships to students. The Government of Canada also provides tax relief to students and those who financially support them through the tuition tax credit, the education tax credit, and the transfer and carry-forward of unused credits. And the Canada Education Savings Grants (\$365 million annually) helps families save for their children's post-secondary education.

⁵³ Alison Coleman, Philip Hunter and Jane Simms, *A Director's Guide, Skills: Transforming Business, Towards a Better Skilled and More Competitive Workforce*. (London: Director Publications Ltd, 2003) p. 10.

⁵⁴ Alison Coleman, Philip Hunter and Jane Simms, *A Director's Guide, Skills: Transforming Business, Towards a Better Skilled and More Competitive Workforce*. (London: Director Publications Ltd, 2003) p. 11.

⁵⁵ Since most investments in the drivers of productivity and growth are made by individuals and businesses, the role of the Government is to enhance and strengthen its policy framework to encourage all Canadians to invest more in these drivers. See: Department of Finance Canada, *The Budget Plan 2005* (Ottawa: Her Majesty the Queen in Right of Canada, 2005), p.311.

decades already in the labour market today, adult workers must also learn new skills, in existing and emerging fields, if Canada is to maintain or grow its competitive advantage.

To address this adult worker skills development challenge many industrial sectors across Canada, such as trucking, automotive parts manufacturing, aviation maintenance, construction, tourism, and international trade are working as a collective, and bringing together government, business, labour, and education, in an effort to develop comprehensive policies and programs that address critical human capital issues and promote employer-led workplace skills development strategies. Some of these sector-based collective initiatives—those with greater industry-support and buy-in, and those with a clear understanding of their labour market needs and what is required to overcome any shortcomings through the development of sound policies and programs—have been more successful than others.

Notwithstanding the federal government's role in adult and worker skills development, national policy in human capital development (labour market policy) has historically been peppered with discord between federal and provincial/territorial levels of government.⁵⁸ On the one hand, the constitutionally-established jurisdiction of the Canadian provinces over education has been interpreted to include adult and skills training—key components of any labour market policy. On the other hand, the federal government, responsible for macro-economic policy, also has a vested interest in labour market policy and therefore an interest in labour market training. For example, the Government of Canada has responsibility for employment insurance (EI), and through the EI program indirectly funds some adult skills training initiatives. Clearly there has been a historic lack of coordination on training policy in Canada.

In 1996, with a revamping of the Canadian labour market training system, the federal government withdrew from the provision of direct training of EI clients, and entered into Labour Market Development Agreements (LMDAs) with provinces and territories—resulting in the full-transfer LMDAs with five

provinces and two territories, and co-managed LMDAs with four provinces and one territory.⁵⁹

Today, through LMDAs with the provinces and territories and other programs, the Government of Canada provides over \$2 billion a year for the delivery of employment benefits (Employment Insurance) and numerous support measures, including skills upgrading and training.⁶⁰ As such, there has also been initiative on the part of the Government of Canada to expand capacity in education and training for adult learners, and within specific occupations, in order to address sector skills shortages. In this capacity, the government's role is to facilitate *collective action* by industry, wherever possible, and overcome systemic skills shortages where they exist on an industry-by-industry basis. Some recent initiatives announced in the 2004 budget plan include:⁶¹

- Through the Aboriginal Human Resources Development Strategy (a five-year, \$1.6 billion initiative), assisting in the training and employment needs of Aboriginal people.
- Providing upwards of \$50 million in annual direct support (growing to \$60 million by 2006-07), to 29 Sector Councils to assess future employment patterns, skills requirements and training practices, and to develop measures to help employers and workers meet and adapt to the changing needs of each sector.

Other recent announcements by the Government of Canada supporting skills development include:

- The launch of the Foreign Credential Recognition (FCR) Program, in May 2005—a major initiative involving the Canadian Council of Professional Engineers, the Canadian Foundation for Economic Education, the Association of Canadian Community Colleges, and the Canadian Tourism Human Resource Council—toward building a more globally competitive and sustainable economy.⁶²

⁵⁸ Typically the Government of Canada has relied on three key policy instruments to address labour market issues: (1) immigration—to address skills shortages; (2) spending on passive measures—like EI; and, (3) support of institutional training—with little or no formal support for on-the-job training.

⁵⁹ Richard Brisbois and Ron Saunders, *Skills Upgrading Initiatives in Canada: Regional Case Studies—Preliminary Report*, (Ottawa: Canadian Policy Research Networks Inc., January 2005), p. 7.

⁶⁰ Department of Finance, *The Budget Plan 2004: Chapter 4—Moving Forward on the Priorities of Canadians, The Importance of Learning*.

<<http://www.fin.gc.ca/budget04/bp/bpc4be.htm>>

⁶¹ Ibid, <<http://www.fin.gc.ca/budget04/bp/bpc4be.htm>>; and, <<http://www.fin.gc.ca/budget04/bp/bpc4e.htm>>

⁶²

<<http://www.news.gc.ca/cfm/CCP/view/en/index.cfm?aricleid=141029&>>

- In May 2005, \$5.9 million was earmarked for four projects under the Sector Council Program that will help support the promotion of skills development within the textile sector and improve the country's economic growth and competitiveness in this sector.⁶³
- In May, 2005, \$0.9 million was dedicated to the sanofi-aventis biotech challenge (SABC) program, which aims to help recruit young people into careers in Canada's biotechnology industry.⁶⁴

ESTABLISHING GOVERNMENTS' SKILLS PRIORITIES

Government skills strategies that focus on efforts to increase the demand for skills are essential. Simply asking a company to train more is unlikely to have much impact, and there is no guarantee that government attempts to encourage high levels of skill development will result in corresponding high levels of skill deployment. Often, companies seek solutions to competitive challenge in places that are not very productive and will first look at downsizing and outsourcing in an attempt to shrink or contract their way to profit—ultimately weakening and destroying their organizational culture in efforts to minimize labour costs (even as companies repeatedly proclaim that employees are their most important asset).⁶⁵

A priority of government should be to provide a sense of direction for the skills system, and, in particular, the adult and workplace skills system—a sense of what matters, and what will make a real difference is needed.

Skills and training policies and programs that are implemented based on drifting priorities, issues-of-the-day, or inertia will not adequately serve the purpose of building a comprehensive, productive and skilled workforce. Avoiding inadvertently counter-productive knee-jerk responses or one-size-fits-all responses to apparent skill imbalances also need to be avoided. A sense of vision and purpose is required. Such visions are common. What is difficult is the ability to execute them.

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<<http://www.news.gc.ca/cfm/CCP/view/en/index.cfm?articleid=14319&>>

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<<http://www.hrsdc.gc.ca/en/cs/comm/hrsd/news/2005/050512.shtml>>

⁶⁵ Government of South Australia, *Skills South Australia, Skills for the Future—Final Report of the Ministerial Inquiry*, (South Australia: Department of Employment, Training and Further Education, May 2003), p. 42.

The experience of many countries, including Australia, Denmark and South Africa, shows that new approaches to human resources development and training must be based on sound institutions, without which learning and training investments run the risk of being ineffective and lacking impact.⁶⁶ Ultimately, the task of these institutions is to develop a common culture of learning and training between all stakeholders concerned—government, companies, social partners, individuals and civil society. According to a recent International Labour Office (ILO) report, essential elements of a framework for human resources development and training include:⁶⁷

- A framework and institutions for dialogue between employers and workers on policy-making and resource mobilization for human resources development and training, and for defining the respective responsibilities of various stakeholders.
- A diversified system of public and private training institutions and providers, including systems for supervising the quality and relevance of their programs.
- A decentralized structure for decision-making regarding identification of training needs, content and curricula of education and training, and mobilization and use of resources.
- An integration of the concept and practice of lifelong learning into the institutional framework; and the establishment of a qualifications framework and systems of skills recognition and certification in support of learning and skills development.
- Institutions for collecting, analyzing and disseminating labour market information, for job brokering and job search assistance.

The Government of Canada's vision of building a skilled and adaptable workforce cannot be achieved by focusing solely on education and training, or on skills development alone. As introduced earlier in this report, it needs to be embedded in a wider system of innovation, economic renewal and regional development. It also requires a coordination of government effort, a commitment from all stakeholders

⁶⁶ International Labour Office, *In Focus Programme on Skills, Knowledge and Employability: Learning and Training for Work in the Knowledge Society* (Geneva: International Labour Office) <http://www.logos-net.net/ilo/150_base/en/report/ch_1.htm>

⁶⁷ <http://www.logos-net.net/ilo/150_base/en/report/ch_1.htm>

(including education, business, labour and government) and adequate resources. The term 'workforce development' emphasizes that skill is a cross-cutting issue. Policies, strategies and programs intended to develop the skills of the workforce are, therefore, not the sole responsibility of the education and training system, government, or any single organization. Rather, business, labour, individuals, government agencies and the education and training system have a mutual interest (and responsibility) in creating a world class workforce.⁶⁸

The facilitation of industry-specific collaborations which foster the evolution of innovative workforce development approaches—which can minimize the incidence and impacts of future imbalances—are needed. Today, the Government of Canada is playing both a *leadership* and *facilitating* role in turning its skills, training and workplace development vision into a reality.

Canada's Workplace Skills Strategy

The social economy—government investments to enhance health, education and communities—was a major theme in the 2004 Speech from the Throne. The speech placed emphasis on the importance of Sector Councils—bodies that bring together labour and industry to develop human resource strategies. In his 2004 reply to the Speech from the Throne, the Prime Minister announced the Government of Canada's intention to work with unions by providing funds for capital purchases of training equipment, with businesses in the workplace, and through Sector Councils—to develop a new Workplace Skills Strategy, in order to boost literacy and other essential job skills for apprentices and workers. A Martin adviser noted that these ideas "add up to evidence of a Prime Minister who takes a personal interest in policy, who believes that you can find creative ways to generate new solutions to old problems, and who is very much a believer in an activist role for government—while remaining financially responsible".⁶⁹

⁶⁸ Government of South Australia, *Skills South Australia, Skills for the Future—Final Report of the Ministerial Inquiry*, (South Australia: Department of Employment, Training and Further Education, May 2003), p. 21.

⁶⁹ Graham Fraser and Susan Delacourt, 'Clear signals' in throne speech—Unprecedented focus promised Liberals to lay out priorities today, *Toronto Star*, (Ottawa Bureau, February 2, 2004)
<http://www.thestar.com/NASApp/cs/ContentServer?pagenam e=thestar/Layout/Article_Type1&c

The 2004 budget also committed to the launch of the *Workplace Skills Strategy* (WSS) to help workers enhance their skills in order to keep pace with constantly evolving workplace requirements. It is through this strategy that the Government of Canada is able to work with its partners—provinces and territories, colleges and training institutions, business and labour, and individuals—to ensure that workers acquire the skills they need to succeed.⁷⁰

The WSS is intended to promote workplaces that support the development and utilization of people's abilities and talents; and to guide the development of policies and programs that recognize the importance of developing human capital in, and for, Canadian workplaces.⁷¹ In a recent speech at the 2004 annual general meeting of The Alliance of Sector Councils, Wayne Wouters, then Deputy Minister of HRSDC, noted that the key objectives of the WSS are to: "ensure the Canadian workforce is highly skilled, adaptable and resilient; build a labour market that is flexible, efficient and productive; and work with employers to ensure that workplaces are healthy, productive and innovative." He also pointed out that this new strategy is a fundamental change to the way that the government operates: "HRSDC must move from a focus on helping people get back into the labour force—a strategy designed for a world of *job shortages*—to ensuring that those currently employed have the skills they need to sustain themselves—a strategy designed for a world of *skills shortages*".⁷²

⁷⁰ Department of Finance, *The Budget Plan 2005*, p. 123. The 2005 Budget makes an additional investment of \$125 million over the next three years to work with stakeholders in moving forward on a Workplace Skills Strategy, including: strengthening apprenticeship systems in Canada, leveraging support from workplace partners to design and test skills development pilot projects that are innovative, demand-driven and targeted to the currently employed.

⁷¹ In particular, the Workplace Skills Strategy responds to the needs of adults in the workplace by reinvigorating existing programs to focus on the needs of employers and the currently employed; introducing new initiatives and instruments designed to create the conditions and incentives needed to encourage workplace skills development, and engaging employers to better understand their skills needs and barriers. Government of Canada, *Workplace Skills Strategy—An Emerging Policy Framework* (Consultation Deck—for discussion, 2004).

⁷² Deputy Minister Wayne Wouters challenges Sector Councils to demonstrate results and expand their reach, TASC Connections, The Newsletter of the Alliance of Sector Councils, (Winter, 2005, Vol. 4, No. 1), p. 2.

Strategic priorities of the Government of Canada's Workplace Skills Strategy include:⁷³

1. Better aligning government investments in skills with the needs of the labour market.
2. Creating incentives for employer commitment to, and investment in, training.
3. Broadening recognition of skills and experience acquired outside of formal Canadian education.
4. Increasing the capacity to forecast skill shortages, find skilled employees, and upgrade skills of current employees.
5. Improving the reliability, accuracy, relevancy, timeliness and access to government generated labour market, human resource and program information.
6. Developing partnerships and networks to facilitate employer-led workplace skills development strategies and increase human resources knowledge.

In a recent interview, Karen Jackson, Assistant Deputy Minister, Workplace Skills, HRSDC, noted that the Government of Canada's WSS is: "principally focused on employers and the currently employed—on re-tooling and up-skilling. [The Government's] role is to facilitate, coordinate and seek input to develop a strategy that will see changes in workplaces. At the federal level, our support—to apprenticeship, labour market integration of immigrants, literacy and essential skills, Sector Councils—needs to be aligned."⁷⁴

In the 2005 Budget, the Government of Canada aims to strengthen Canada's core capabilities by continuing on its path of investing in people, investing in ideas and enabling technologies, and strengthening the ability of regions (including Atlantic Canada, Northern Ontario, and the North) and sectors (including the textile and apparel industries which are under significant duress from international competitors).⁷⁵ In the 2005 Budget \$125 million, over three years, is targeted for the WSS to:

- Strengthen apprenticeship systems in Canada.

- Support the testing of new skills initiatives that are demand-driven, and targeted to employed people through the Workplace Skills Innovation Initiative (WSII).
- Foster dialogue on workplace skills issues through the Workplace Partners Panel (WPP)—a panel comprised of business, labour and training leaders.

Sector-Based Approaches to Skills and Learning

The sectoral approach to skills and learning is a well-established method of meeting emerging skills requirements, addressing skills and labour shortages, linking education and training processes to sectoral labour market needs, building essential skills in the workplace, and recognizing the importance of continuous learning. It is an approach that has taken root in Canada and many other countries.

Being predominately employer-led, sector-based initiatives have the advantage of providing training that is demand-driven and tailored to fit a particular industry's needs. Furthermore, the sector-based approach to skills and learning recognizes that while the performance of individual companies remains vital—individual companies ultimately drive what skills they need to develop within their organization—they are also increasingly embedded in a much broader sectoral and networked system. This ultimately plays a key and distinctive role in shaping the collective demand for, and utilization of skills.

There is a long tradition of sector-based education and training in OECD countries, including England, Scotland, Wales, Ireland, Australia, New Zealand and France; and in Latin-American and Asian countries—where sector-based training and learning is often operated by sector employers' associations.⁷⁶ The next two sections of this literature review examine Canada's, and four other comparator countries, approach to sector skills strategies. It is not surprising that most of these countries—Australia, New Zealand, The United Kingdom, and Scotland—have all followed similar approaches—embodying the principles of partnerships and bringing together business, labour and learning stakeholders to share ideas, concerns and perspectives about human resources and skills issues.

⁷³ Government of Canada, *Workplace Skills Strategy—An Emerging Policy Framework* (Consultation Deck—for discussion, 2004), p. 12.

⁷⁴ *An interview with Karen Jackson, Assistant Deputy Minister, Workplace Skills, HRSDC*, TASC Connections, The Newsletter of the Alliance of Sector Councils, (Winter, 2005, Vol. 4, No. 1), pp. 3-4.

⁷⁵ Department of Finance, *The Budget Plan 2005*. <<http://www.fin.gc.ca/budget05/bp/bpc4e.htm>>

⁷⁶ International Labour Office, *In Focus Programme on Skills, Knowledge and Employability: Learning and Training for Work in the Knowledge Society* (Geneva: International Labour Office), Chapter 4, pp.16-17. <http://www.logos-net.net/ilo/150_base/en/report/ch_1.htm>

Highlights of Canadian Labour Market Policy: 1966-2002⁷⁷

- 1966: *Adult Occupational Training Act*—the federal government begins to purchase blocks of training programs from colleges.
- 1970's: *Local Initiatives Program (LIP)*, the *Local Employment Assistance Program (LEAP)*, and *Opportunities for Youth (OFY)*—the federal government begins to place increased emphasis on job creation in order to ease high unemployment rates.
- 1982: *National Training Act*—the federal government, for the first time, encourages on-the-job training as opposed to training in schools and other institutions.
- 1985: *Canadian Job Strategy*—the federal government solidifies its shifting focus to supply-side labour market programs and initiatives by moving resources away from institutions and towards community groups.
- 1989: *Labour Force Development Strategy (LFDS)*—a federal government strategy to involve labour and business in training decisions and labour policy, and address the perception that labour market programs were inadequate and that the government was out of touch with the training needs of the private sector.
- 1991: *Canadian Labour Force Development Board (CLFDB)*—a federal government response to the call for the development of a National Training Board (NTB) to promote training initiatives, provide advise on training policy, and make recommendations on national labour market programs. Regional LFDB's were to be created in each province, however, Alberta, Manitoba, PEI, and both territories never established boards. The CLFDB was abolished in 1999—never moving beyond a minor advisory capacity.
- 1992: *Sectoral Partnerships Initiative (SPI)*—a federal government initiative to expand on the existing LFDS and included funding for sectoral-based initiatives such as setting national occupational standards, skills upgrading, youth internships, and skills enabling activities.
- 2002: *Sector Council Program (SCP)*—a federal government initiative designed, among other things, to expand the network of Sector Councils to cover 50 per cent of the labour market, and to strengthen the ability of Sector Councils to demonstrate results in addressing workplace skills issues.

Source: John Grenke: *From Labour Force Development Boards to Sector Councils*, 2005.

⁷⁷ John Grenke, *From Labour Force Development Boards to Sector Councils: Instrument Choice in the Canadian Active Labour Market Policy Sphere*, pp. 3-11 (Unpublished: Master of Public Policy paper, Queen's University, 2005).

THE GROWTH OF SECTOR COUNCILS IN CANADA

Today there are 29 Sector Councils in Canada covering approximately 40 per cent of the country's labour market. This is a significant increase in numbers and scope since the early days of Sector Councils when Employment and Immigration Canada used the Industrial Adjustment Service (IAS)—a program that brought labour and management together to help workers find employment after major layoffs or plant closures—to fund labour adjustment studies for the steel industry, and assisted in the establishment of a joint labour-management body called the Canadian Steel Trade and Employment Congress.⁷⁸

In 1988, the Sector Studies Directorate used the IAS program to assist in the establishment of the Joint Human Resources Committee of the Electrical and Electronic Manufacturing Industries, which led to the development of the Sectoral Skills Council in 1990.⁷⁹ The milestone for Sector Councils, however, came in 1989, when the Labour Force Development Strategy was first introduced—a strategy that recognized government-private sector cooperation as a means to increase the level of commitment of the private sector to training.⁸⁰ Financial support followed, numerous sector studies were conducted, and many new Sector Councils were established.⁸¹

The initial major federal government commitment to Sector Councils was through the 1992 budget allocation to the Sectoral Partnerships Initiative (SPI), now referred to as the Sector Council Program. The initiative, officially launched in 1993 to foster the development of a stronger training culture and promote human resource planning within the private

sector—prompted by labour market development agreements (LMDAs) between 1995 and 1999—quickly evolved from being a purchaser of workplace training and learning opportunities to having a genuine bearing and impact on the public learning system in Canada.

For close to fifteen years, Sector Councils have brought employers, labour and educational stakeholders together, in key industries and economic sectors across Canada, to identify and address common human resources issues, and skills and learning challenges—current and anticipated. Notwithstanding a number of critical challenges, obstacles and hurdles that continue to beset some Sector Councils in their ability to enhance the skills and labour market conditions of their sectors.

Human Resources Challenges Facing Canada's Sectors

A review of the Government of Canada's Sector Council Fact Sheets indicates that there are a number of common human resource challenges facing Canada's sectors.⁸² Sixty-nine per cent of Sector Councils said that the recruitment of skilled workers and addressing the current skills shortages and skills gaps was a significant challenge facing their sectors. Fifty-eight per cent said that the image of their sector, and a lack of awareness of good job opportunities within their sectors, was a major challenge that they faced; and 55 per cent of Sector Councils said that changing technologies and technical skills gaps were a real challenge facing their sectors. Other significant human resources challenges facing sectors include: the aging workforce (37.9 per cent), the need for continual skills upgrading (34.5 per cent), and the retention of skilled workers (27.6 per cent). Table 3, below, lists the top challenges facing Canada's sectors.

The Role of Sector Councils in Canada

Sector Councils act as a bridge between companies within a sector, and help coordinate a collaborative and collective skills strategy—where economies of scale in addressing human resources challenges can be realized. Ultimately, the activities of Sector Councils help employers and workers by creating tailored solutions that meet the needs of particular sectors and the companies and workers within it. As well, having companies work directly with educators

⁷⁸ Morley Gunderson and Andrew Sharpe (eds.), *Forging Business-Labour Partnerships: The Emergence of Sector Councils in Canada*. (Toronto: University of Toronto Press, 1998), p. 39. In the 1980's three Sector Councils were formed: The Canadian Steel Trades and Employment Council (CSTEC), the Electrical and Electronic Manufacturers Association of Canada (EEMAC), and the Canadian Automotive Repair and Service (CARS), taken from:

<<http://www.hrsdc.gc.ca/asp/gateway.asp?hr=/en/hip/hrp/corporate/sector/sectorcouncil.shtml&hs=hzp>>

⁷⁹ Gunderson and Sharpe, p. 39.

⁸⁰ Gunderson and Sharpe, p. 40.

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<<http://www.hrsdc.gc.ca/asp/gateway.asp?hr=/en/hip/hrp/corporate/sector/sectorcouncil.shtml&hs=hzp>>

⁸² The Government of Canada's *Sector Council Fact Sheet Project*, (Sector Council Program, Human Resources Skills Development Canada), March 2004.

and trainers makes the Canadian learning system more responsive to the needs of the labour market. Workers get the skills they need and employers get a skilled workforce.⁸³ However, despite the government proclamation that sector council activities are driven and owned by the industry and their purpose is to promote collaboration and consensus between various stakeholders, the establishment and ongoing operation of Canada's Sector Councils has been largely government driven.⁸⁴

Table 3
Main Human Resources Challenges Facing Canada's Sectors (2004)⁸⁵

Major Challenges Facing Sectors	% of Sector Councils
Recruitment of Skilled Workers, Addressing Skills Shortages/Gaps	69.1%
Image of the Sector, Lack of Awareness of Good Job Opportunities/Careers	58.6%
Technical Skills Gaps, Changing Technologies	55.2%
Aging Workforce	37.9%
Skills Upgrading, Continual Professional Development	34.5%
Retention of Skilled Workers	34.5%
Poor Human Resources Practices	24.1%
Mobility Barriers of the Workforce	20.7%
Standardization of Competencies, Certification	17.2%
Globalization	10.3%
Changing Skills Profile of New Entrants	10.3%
Cyclical Nature of the Industry	6.9%
Labour Market Information Gaps	6.9%
Source: The Conference Board of Canada, The Government of Canada, 2004.	

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<http://www.hrsdc.gc.ca/asp/gateway.asp?hr=en/hip/hrp/corporate/init_sector.shtml&hs=hzp>

⁸⁴ Pradeep Kumar, *Union Experience with Sectoral Councils in Canada*, Presentation to the Labour Education and Training Network Conference, Vancouver, October 21, 2000.

⁸⁵ The Government of Canada, *Sector Council Fact Sheet Project* (Sector Council Program, Human Resources Skills Development Canada), March 2004.

Sector Councils encourage employers to work with one another in a collaborative environment in order to address common skills issues and challenges. This approach, in part, helps to reduce concerns about "poaching" of skilled workers by competitors (an inhibitor to investment in workforce training). Sector Councils also offer SMEs the opportunity to overcome challenges they face around funding skills upgrading for their employees. Finally, the sectoral approach to skills development, through Sector Councils, is also a good model for developing stronger union-management relationships in workplace literacy training.⁸⁶

Today, Sector Councils represent traditional industries such as steel and textiles; emerging industries like environment, biotechnology, and childcare; and non-industry specific groups such as apprenticeship, international trade, and aboriginal peoples. A list of Canada's national Sector Councils is found in Appendix A. Although Sector Councils are positioned to respond to the diverse and often unique skills challenges of a given industry sector, they are all committed to achieving a number of unique core outcomes and objectives.

Objectives of Canada's Sector Councils

The objectives of the Sector Councils, according to a review of sector council websites are to:

1. Define and anticipate skills requirements and human resources issues related to the rapidly evolving workplace.
2. Promote lifelong learning in the workplace and help workers gain the skills and knowledge needed to drive innovation, improve productivity, sustain a competitive advantage, and succeed in the changing economy.
3. Improve collaboration with the learning system to ensure that learning and skills development are more responsive to industry needs.
4. Encourage better human resources planning and skills development strategies within sectors.
5. Facilitate mobility and labour market transitions.
6. Support and promote effective and efficient labour markets within industry sectors.

⁸⁶ See: The House of Commons, *Raising Adult Literacy Skills: the Need for a Pan-Canadian Response*, (The Government of Canada: Report on the Standing Committee on Human Resources Development and the Status of Persons with Disabilities, June 2003), p. 68.

7. Encourage the private sector to take ownership and invest in solutions that address skills challenges.

While all Sector Councils deal with human resource issues, the extent to which they do so varies greatly depending on the nature of the councils themselves, their funding arrangements, the extent of employer interest and commitment to their programs and activities, and the age of the council themselves. Older councils have well-established programs whereas some of the newer ones are still in the early stages of understanding the labour market issues of their sectors. Appendix B provides an overview of Canada's 29 Sector Councils, including their top priorities and programs.

The objectives of Canada's national Sector Councils mirror the priorities of Canada's Sector Council Program (SCP)—the federal program overseeing the Sector Councils. The SCP's key priorities include:⁸⁷

- Growth: increasing coverage and penetration of the labour market by expanding the network of Sector Councils in strategic areas of the economy to cover 50 per cent of the labour market by 2007.
- A Focus on Performance and Results: optimizing performance to sustain industry action and putting in place mechanisms permitting councils to better demonstrate measurable results and communicate their success.
- An Increase in Sector Councils' Engagement and Profile with Industry Stakeholders and Post-Secondary Institutions: positioning Sector Councils to deliver on horizontal policy issues by collaborating with the learning sector and other key partners, and ensuring that the skills being developed are responsive and relevant to the needs of employers.⁸⁸

In order to be an integral part of Canada's culture of learning and skills development Sector Councils, and their interventions and programs, must demonstrate real differences in the workplace—resulting in long-term behavioural changes on the part of employers and employees, and a greater commitment to

investing in skills.⁸⁹ However, because the nature and scope of training is uneven among Canada's national Sector Councils, it has proven extremely difficult to evaluate the costs and benefits of the Sector Council Program. To date, most evaluations of Sector Councils have been positive, emphasizing the potential of councils (focusing on strengths and weaknesses, opportunities and threats) rather than on quantifiable results.

Noted accomplishments of Sector Councils, cited by academics, expert panels, government and the Sector Councils' secretariat, include: a net increase in human resource planning and expenditures; the promotion of a training culture within Canada; enhanced awareness of human resource issues; and, the fostering of a climate of trust between business and labour. And some of the weaknesses of Sector Councils include: divergent interests of labour and management on the type of training offered and the governance models in place; uneven outcomes; and a lack of visible progress on equity outcomes.⁹⁰

Sector Councils must strive to be more than national entities working strictly on standards and occupational analysis. They need to build tools and applications, in partnership with educational institutions, in order to understand the requirements of the sectors within they operate, and to prompt skills investments on the part of employers and workers in their sectors. Finally, Sector Councils need to provide a national perspective while understanding local issues. Notwithstanding the successful efforts of many Sector Councils, developing a regional presence and maintaining local relevance remains one of the biggest, if not the biggest challenge that Sector Councils face in their efforts to building effective skills development programs.

One other major stumbling block for Sector Councils over the years has been the requirement to achieve

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<<http://www.hrsdc.gc.ca/asp/gateway.asp?hr=/en/hip/hrp/corporate/sector/sectorcouncil.shtml&hs=hzp>>

⁸⁸ One underlying intent of the Sector Council Program is to encourage a shared responsibility in the ownership of learning and training to include both the suppliers of skilled workers, mainly government institutions, to those actually demanding these skills—namely industry.

⁸⁹TASC Connections, The Newsletter of the Alliance of Sector Councils, (Winter, 2005, Vol. 4, No. 1), p. 4.

⁹⁰ From a labour perspective the key elements of a training agenda include: universal access to training; an emphasis on generic portable skills to enhance mobility, flexibility and security; union and worker input in the identification of needs and in the design, content and delivery of training; the use of good adult-education practices; and, training that is delivered through public educational institutions, which, in the case of employed workers should be financed by employers. As cited in: Pradeep Kumar, *Union Experience with Sectoral Councils in Canada*, October 21, 2000 (Presentation at the Labour Education and Training Network Conference).

core operational self-sufficiency. Although an understandable goal, in the eyes of the Government of Canada—by reducing the demand for ongoing support from existing councils the government is able to cover more sectors; it ensures that buy-in from industry is real; and, it reduces perceptions that the Sector Councils are an extension of the government—the ‘self-sufficiency’ target takes up much of the Sector Councils’ time and efforts and even leads to the compromise of other objectives (for example, the charging for services, products and programs offered by Sector Councils may restrict access based on the ability to pay).

Canada's Sector Council Program

Skilled worker shortages in many sectors and industries across Canada threaten our ability to remain competitive, to be innovative, and to grow our economy in the future. In the final analysis, all industries will be competing for the same people—including foreign and domestic talent. The sectors (and the businesses within these sectors) that succeed will be those that have developed a strategic understanding of the human resource issues and processes that link this strategic understanding with effective action.

The Government of Canada, through the Sector Council Program, has responded to Canada's strategic skills needs by developing a system of national Sector Councils—in collaboration with business, unions, and the learning system—in order to strategically manage human resource challenges and create new opportunities for skills development, enhancement and recognition.

Linked to Canada's Workplace Skills Strategy, the Sector Council Program aims to help Canadians acquire the skills needed for meaningful and productive employment. It is through the Sector Council Program and its Sector Councils that the Government of Canada works with business, unions, employees, and other levels of government to ensure that Canadians have the opportunity to develop their skills and succeed, and to ensure that the needs of employers are met.

A 1997 evaluation of the Sectoral Partnerships Initiative acknowledged that the initial three-year time frame for achieving self sufficiency was unrealistic for most Sector Councils, who had to spend most of their time and effort simply building partnerships in a sector—let alone design and market

products to support their expenditures. The same report also noted that even those councils who had achieved some measure of self-sufficiency still sought SPI funding support to carry-out projects consistent with the initiative's objectives.⁹¹

Even today, with government funding for Sector Councils secured for another three years, the councils contend that the pressures associated with achieving self-sufficiency can distract a fledgling council's focus from their original mandate, and even inhibit successful councils from sharing information and best-practices with other councils as they try to maintain a competitive edge for limited SCP resources. Sector Councils also maintain that it is difficult for them to plan future activities, map out strategic directions, or build partnerships with business and education, without committed longer-term infrastructure support (a feeling that is reciprocated by the business and education communities).

Before looking at a number of international approaches to skills development, and sectoral skills initiatives, it is worthy of ending this section of the report by listing the eight principles for building effective Sector Councils, as identified by Gunderson and Sharpe.⁹² In order to build effective national Sector Councils in Canada:

- Labour and business must act as equal in the process of building Sector Councils.
- Sector Councils must complement the collective bargaining framework.
- Sector Councils must ultimately be driven by business and labour—and not by government.
- Decision-making must be jointly derived at and based on mutual recognition of the concerns of all stakeholders involved.
- It is imperative that strong linkages between workplaces and Sector Councils are built and maintained.

⁹¹ Evaluation and Data Development (EDD) Division of the Strategic Policy Branch, Human Resources Development Canada, *Final Evaluation Report on the Sectoral Partnership Initiative*, (November 1997), p. 33.

⁹² Morley Gunderson and Andrew Sharpe (eds.), *Forging Business-Labour Partnerships: The Emergence of Sector Councils in Canada*, (Toronto: University of Toronto Press, 1998); as cited in: Pradeep Kumar, *Union Experience with Sectoral Councils in Canada* Presentation at the Labour Education and Training Network Conference (Vancouver: October 21, 2000).

- It is important that there are adequate resources in place for the Sector Councils—with some long-term government funding.
- Sector Councils need to have strong leadership in place in order to overcome the challenges associated with collaborative initiatives involving many different stakeholders.
- Sector Councils and all of their stakeholders need to keep “realistic” expectations about what can be achieved, and how it can be done.

INTERNATIONAL SKILLS DEVELOPMENT INITIATIVES: SECTOR STRATEGIES ARE PROMINENT

Consortium-Based Strategies

A well-established example of a sector-based approach to skills development can be found in Europe through the ICT Skills Consortium. The Consortium brings together seven ICT companies: IBM Europe, Nokia Telecommunications, Philips Semiconductors, Thomson CSF, Siemens AG, Microsoft Europe, and British Telecommunications to address the ICT skills shortages within the sector, and develop a framework to identify the skills and competencies required by the European ICT industries for students, education and training institutions, and governments. The sponsor companies, in turn, have developed generic job profiles relevant to their main activities, and have created a dedicated website in order to match skills with demand.

This sector-based approach to skills and learning has provided the European ICT industry with a range of benefits, including the ability to:⁹³

- Attract more students into ICT courses and employment by providing attractive, plain-language profiles of the jobs, roles and opportunities within the industry.
- Provide post-secondary education ICT curriculum to designers with clear, up-to-date and easily accessible information on the skills needed by the European ICT industry.
- Assist governments develop policies that foster the growth of ICT skills in Europe.

SME-Based Training Strategies

In comparison with larger companies, small and medium-sized enterprises (SMEs) often face numerous disadvantages in acquiring knowledge and in upgrading the skills of their workforce. SMEs simply cannot afford to train their staff at levels that match larger companies—budgets, time and the availability of staff are all in short supply.⁹⁴

⁹³ International Labour Office, *In Focus Programme on Skills, Knowledge and Employability: Learning and Training for Work in the Knowledge Society* (Geneva: International Labour Office), Chapter 4, p. 17.

⁹⁴ See for example, the experience of Pixelera, a small Canadian-based high-technology firm that has 9 employees, yet values and recognizes the importance of workplace skills development. The Software Human

Some of the most promising skills and learning initiatives for SMEs have emerged through sector-based approaches, in which intermediary institutions provide or organize the training, and sector bodies or associations that represent companies within a sector oversee the process. In Spain, for example, an entrepreneurial association, made up of close to 150 small firms in the mould and die-making sector, has established its own Technology Centre. The Centre provides training courses alongside other services for the sectoral association, in order to raise the competitiveness of all member companies.⁹⁵

Cluster-Based Strategies

Industrial sectors that are concentrated in geographical clusters also benefit from being served by tailored skills and learning development initiatives. For example, in New York, the Garment Industrial Development Corporation (GIDC)—a tripartite intermediary institution that serves a cluster of around 4,600, mainly small, New York garment firms facing stiff competition—offers training programs in specialized skills for both workers and management. Each year over 1,000 garment workers and management personnel are trained in order to raise the competitiveness of the cluster (e.g., through programs that promote quick response technologies, through demonstration projects, and through international marketing services).⁹⁶

In the region of Valencia, in South East Spain, a network of close to a dozen Technical Institutes provide local firms human resources developmental services, including training tailored to the specific needs of sectoral clusters in the textiles, footwear, ceramics and toys sectors. Each institute has a link to an association of small companies, who also comprise the majority of its board members. This arrangement, coupled with a sector focus, encourages the institutes to be more client-sensitive and increases the relevance and value of their services.⁹⁷

Resource Council, *Building Knowledge for Growth @ Pixelera: Experiential Learning Opportunities are Helping Pixelera Position Itself for the Future*, (Ottawa: March 2002), p.p. 1-6.

⁹⁵ International Labour Office, p.17. <http://www.logos-net.net/ilo/150_base/en/report/ch_1.htm>

⁹⁶ International Labour Office, p.17. <http://www.logos-net.net/ilo/150_base/en/report/ch_1.htm>

⁹⁷ International Labour Office, p.18.

AUSTRALIA'S SKILLS AND TRAINING STRATEGIES

Economic Conditions Leading to Changes to Australia's Human Capital Strategy

In the 1990s, strong forces for economic change drove Australia's national government to take policy and program action to build its human capital capacity.⁹⁸ With the benefit of a relatively strong economy—Australia's average economic growth per year was almost double that of comparator OECD countries, on account of strong domestic growth in the services sector, the emergence of the new economy, increased levels of productivity, and expanding exports—the Australian government was looking to maintain and enhance its competitive edge.

Employment growth in non-traditional areas like communications and finance, coupled with the emergence of new industries and jobs, an aging workforce, global competition for workers, and high turnover rates in certain industries, prompted the Australian government, in collaboration with business and other stakeholder partners, to take a stronger interest in addressing Australia's skills development needs. In essence the Government sought to increase the supply of human capital fuel required for the engine of Australian economic growth.

Table 4
Employment Patterns in Australia

Changing Employment Patterns
<ul style="list-style-type: none"> • Over half the 9.2 million jobs in Australia today did not exist in 1965; • About 1.5 million new jobs will appear in the next decade; and • In 2001, the number of white collar jobs in Australia exceeded the number of blue collar jobs.
<p>Source: Australian National Training Authority, <i>Shaping Our Future</i> (ANTA: Brisbane, 2004). pg. 6.</p>

Australia's Response to its Skills Challenges

The Australian Government chose to focus on three main skills channels for intervention:

1. The first channel focused on *industry skills* shortages involving all occupations within a particular industry.
2. The second channel focused on *vocational skills* shortages involving highly skilled, technology or trades oriented people;
3. The third channel for intervention focused on *research, science and innovation skills* shortages involving highly educated professionals.

Addressing Industry Skills Shortages

In September 1999, the Minister for Education, Training and Youth Affairs convened a meeting with the Australian Chamber of Commerce and Industry, the Australian Industry Group and the Business Council of Australia to discuss issues relating to skills shortages. Two months later, the Minister established an industry-led National Industry Skills Initiative (NISI) to ensure training needs of key industries were identified and supported. Three industries were initially chosen for review—engineering, automotive, and electro-technology. Working Groups for each industry were established and charged with four tasks: conducting research to demonstrate the benefits of investing in training to employers; identifying the skill-set needs (now and in the future, including common cross industry issues) of each occupation within the their industry sector; identifying the barriers to satisfying these needs; and, making recommendations to address and overcome these skill-set needs.

To date, government and industry have spent more than \$11 million (AUS) assisting 11 industry sectors in identifying current and future skills needs. The success of NISI has shown the benefits of an industry and Government partnership to address skills needs and the importance off industry taking a leadership role in developing strategies to address them.⁹⁹ This has led to further national strategies and industry skills councils that address skills issues in the trades and vocation area.

Committing to Vocational Skills Development through Industry Skills Councils

In Australia, vocational education and training (VET) has been around since the mid to late nineteenth century. Since that era, vocations and trades have played an important economic role, and continue to

⁹⁸ Australian National Training Authority (ANTA), *Shaping our Future: Australia's National Strategy for Vocational Education and Training 2004-2010* (ANTA: Brisbane, 2004). p. 5.

⁹⁹ Department of Education, Science and Training, *Building on the Success of the National Industry Skills Initiative (NISI)* (Canberra: November 2004). <<http://www.getatrade.gov.au>>.

this day, to be an integral part of the Australian economy. For over a century VET has retained a broad currency—providing skills and knowledge for work, enhanced employability, and skills to enable learning throughout life.¹⁰⁰ VET rose to greater prominence in the 1980s when studies showed that there was an urgent need to update the training system to meet emerging individual and industry requirements.

By the early 1990s, a consensus developed in Australia in which a unified national effort for skills development was required.¹⁰¹ In 1992, state and territory governments agreed to a national training system to replace the separate state and territory systems. The Australian National Training Authority (ANTA) and its board were established and began to advise ministers on national policy and regulation. Today, an Australian Government statutory authority underpins the national focus for vocational education and training.¹⁰²

Government authorizes vocational education and training, but industry drives it. A network of industry advisory bodies advises ANTA about industry training needs, develops training products, and promotes training within their industries.¹⁰³ Government provides about half the funds for the national training system—the remainder comes from employers and learners themselves.¹⁰⁴ Industry commitment to the system of national vocational education and training is crucial. In fact, industry reduction of training expenditures since 1993 prompted ANTA to focus its efforts on increasing industry investment in training as one of its five strategic priorities in 1998-2003.¹⁰⁵

Australia's Industry Skills Councils

In 2003, ANTA decided on a new approach: it would exchange advice and information with industry to support a focus on wealth creation and emerging industries. This new approach involved two new communication channels with industry:

- A national industry skills forum led by the ANTA Board and involving key industry stakeholders.
- A network of 10 new industry skills councils established to partner with government and industry to build the skills of the Australian workforce, and to replace the existing industry advisory bodies.¹⁰⁶

Today, the national industry councils and ANTA work together in positioning skill issues as integral to all significant national cross-government economic and social policy initiatives.¹⁰⁷ Nine councils have been established, with one remaining council—the Government Industry Skills Council—still under negotiation.¹⁰⁸ The nine councils represent a mix of sector specific councils such as manufacturing, and cross-Sector Councils such as innovation and business. They include:

- **Services Industry Skills Council**—which includes the retail and wholesale sectors, sport and recreation, tourism, hospitality, hairdressing, beauty therapy, and funeral services sectors.
- **Transport and Logistics Industry Skills Council**—which includes the transport and logistics, maritime, and aviation sectors.
- **Resources and Infrastructure Industry Skills Council**—which includes industries involved with exploration, extraction, primary processing and civil construction.
- **Electro-Communications and Energy-Utilities Industry Skills Council**—which includes the electro-technology, lifts, communications, gas, electricity generation and transmission and distribution sectors.
- **Community Services and Health Industry Skills Council**—which includes the aged-care, children's services, disability work, Indigenous health workers, community support work, and non-clinical mental health sectors.
- **Agri-Food Industry Skills Council**—which includes the food production and processing sectors.

¹⁰⁰ Australian National Training Authority (ANTA), *History of VET* (ANTA: Brisbane, March 2005). <<http://www.anta.gov.au/print/asp?vetHistory.asp>>.

¹⁰¹ *Ibid.*

¹⁰² Australian National Training Authority (ANTA), *VET—What is it?* (ANTA: Brisbane, 2004). <<http://www.anta.gov.au>>.

¹⁰³ *Ibid.*

¹⁰⁴ *Ibid.*

¹⁰⁵ Andrew Smith and Brett Freeland, *Industry Training: Causes and Consequences* (Leabrook: National Centre for Vocational Education Research, 2002).

¹⁰⁶ Innovation and Business Skills Australia, *Innovation & Business Skills Australia* (Victoria: December 2004). <<http://www.ibisc.com.au/?p=industries>>.

¹⁰⁷ From: *Australian Training Magazine*, September 2004 (David Hind, Board Chair, ANTA).

¹⁰⁸ Australian National Training Authority (ANTA), *Industry Skills Council* (Brisbane: ANTA, March 2005).

- ***Innovation and Business Industry Skills Council***—which includes the business services, cultural, education, financial services, information and communication technologies, and printing sectors.
- ***Construction and Property Services Industry Skills Council***—which includes the building and property industry sectors.
- ***Manufacturing Industry Skills Council***—which includes sectors from heavy engineering to textiles.

Australia's Skills Councils are bringing together industries with common skills development issues, and sufficient critical mass and resources to make a significant investment in the VET system. The councils have two key roles: to provide industry intelligence to the VET sector about current and future skill needs and training requirements; and to support the development, implementation, and continuous improvement of quality, nationally recognized training products and services.¹⁰⁹

Since 1992, the percentage of working age Australians developing their skills and knowledge through vocational education and training (VET) has risen by more than 60 per cent. In addition, nearly 70 per cent of employers of recent VET graduates are satisfied that VET is giving graduates the skills employers need. While 74 per cent of employers in this group consider that training pays for itself through increased worker productivity.¹¹⁰

Australia's National Skills Shortages Strategy—NSSS

This sector approach to skills development was influenced, in part, by the positive experience the Government of Australia has had with the National Industry Skills Initiative (NISI). Consequently, in April 2004, the Ministry for Education, Science and Training announced a National Skills Shortages Strategy—which builds on NISI to address trade skills shortages in critical industries throughout Australia (e.g., engineering, energy and utilities). The new strategy takes an industry approach to skill

needs, and addresses the barriers which turn young people away from choosing a career in trades.¹¹¹

Australia's National Strategy for Vocational Education and Training—NSVET

Another key strategy development in 2004 was the release of *Shaping our Future: Australia's National Strategy for Vocational Education and Training 2004-2010*. This strategy is a commitment by the state and territory governments, and the ANTA, to work in partnership with industry and other stakeholders to develop vocational education and training. The strategy applies from 2004 to 2010 and builds on the previous two national strategies. Developing this strategy involved extensive consultations and collaborations, including interviews with key leaders, focus groups, regional forums, public submissions, targeted consultations and a national forum.¹¹²

Further transformations in the delivery of vocational education and training are taking shape. The Australian Prime Ministers' Office recently announced a government restructuring to meet the needs of vocational education and training. A new ministerial position was created: The Minister for Vocational and Technical Education—to oversee the implementation of the Government's election commitments in the area of skills training. The Minister will work with industry partners, private and public training providers, and the states and territories in the funding and delivery of vocational education. Consequently, the Australian National Training Authority will be abolished in July 2005 and its responsibilities will be taken over by the new Minister, bringing significant administrative savings.¹¹³

¹⁰⁹ Australian National Training Authority (ANTA), "Industry Skills Council," *Australian Training Magazine* (Brisbane: ANTA, September 2004).

¹¹⁰ Australian National Training Authority (ANTA), *Skilling Australia* (ANTA: Brisbane, 2004). <www.anta.gov.au>

¹¹¹ Department of Education, Science and Training, *A new Approach to tackling Skills Shortages in Trades* (Canberra: November 2004).

<<http://www.dest.gov.au/ministers/nelson/april-04/n673060404.htm>>.

¹¹² Australian National Training Authority (ANTA), *Shaping our Future: Australia's National Strategy for Vocational Education and Training 2004-2010* (ANTA: Brisbane, 2004).

¹¹³ Australian Government, *Media Releases: Fourth Howard Ministry* (Canberra: Australian Government, March 2004).

<http://www.pm.gov.au/news/media_Releases/media_Releases1134.html>.

Enhancing Research, Science & Innovation Skills Development

The other channel to Australia's skill development strategy has been a focus on research, science and innovation skills. In June 1999, the government released a discussion paper, *New Knowledge, New Opportunities*, outlining proposed reforms to the policy and program framework for higher education research and research training. After a period of consultation with universities and the higher education research community, the government released a White Paper entitled *Knowledge and Innovation*, in December 1999. The focus of this paper was on changes to the funding arrangements for higher education research in Australia.¹¹⁴

In 2001, the Prime Minister released the government's Innovation Statement, *Backing Australia's Ability*, which provided additional funding of \$2.9 billion over five years to support science and innovation.¹¹⁵ A substantial part of these funds was given to the Australian Research Council (ARC)—an independent body that reports to the Minister for Education, Science and Training. Part of ARC's mandate is to develop and retain Australian skills.¹¹⁶ As well, ARC is the primary source of advice to the Government on investment in the national effort to support the highest quality research and research training (through national competition) in all fields of science, social sciences and the humanities. ARC provides direct and indirect support for research training through the National Competitive Grants Program—a key component of the ARC's newly established Centre of Excellence.¹¹⁷

In summary, Australia has taken three paths to meet its skills development and training needs: 1) government and industry are working together to identify current and future skills needs; 2) industry skills councils have been established to work with government to build the skills needed by the Australian workforce; and 3) the Government is committed to support science and innovation which includes developing and retaining skills. It is the first

¹¹⁴ The Allen Consulting Group, *The ARC's Implementation of Government Decisions from Knowledge and Innovation and Backing Australia's Ability* (Melbourne: The Allen Consulting Group, October 2003), pg. 1.

¹¹⁵ *Ibid.*

¹¹⁶ *Ibid.*

¹¹⁷ The Allen Consulting Group, *The ARC's Implementation of Government Decisions from Knowledge and Innovation and Backing Australia's Ability* (Melbourne: The Allen Consulting Group, October 2003), pgs. 58-59.

two paths that take an industry-led approach to skills development, whereas the third path is a national agenda on innovation that includes skills in the overall framework.

NEW ZEALAND'S APPROACH TO SKILLS AND LEARNING DEVELOPMENT

Human Capital Issues Facing the Island Nation

New Zealand, like many other countries, is facing a range of human capital issues such as retaining and attracting skilled and talented people. Human capital issues like these have contributed to New Zealand's lower standard of living compared to other developed countries such as Australia. In the December 1999 Speech from the Throne, the New Zealand Government acknowledged that economic and social prosperity could not be achieved without significant changes.¹¹⁸ One priority area was to make changes in workplace skills development and the tertiary education system. New Zealand's skills, in areas pertaining to new knowledge-based industries, were considered inadequate. As well, the tertiary education system led to unsatisfactory outcomes in terms of both the quality and the appropriateness of skills produced.¹¹⁹

The New Zealand Government's Response: Growing Innovation

The New Zealand Government initiated an engagement process with businesses and other stakeholders to identify barriers to business growth such as skills shortages. This engagement process included: the Knowledge Wave Conference; business-government forums; and reports by various government departments, business leaders, and consultants who reviewed global strategies and made recommendations on how best to achieve New Zealand's economic objectives.

Based on the feedback and recommendations from the engagement process, the Government prepared a framework report entitled *Growing an Innovation New Zealand*. This report set out the direction that the Government intends to follow to become a more innovative, more confident, and more flexible economy. It identified two key areas needed to build an economy capable of sustaining higher growth

¹¹⁸ The Office of the Prime Minister, *Growing an Innovative New Zealand* (Wellington: The Office of the Prime Minister, February 2002). p. 5.

¹¹⁹ *Ibid.*

rates—strengthening the foundations; and building more effective innovation.

Strengthening the Foundations: Skills are a Key Component

There are several areas that sustain and strengthen the foundation of an economy. For this reason, the New Zealand Government is focusing its attention and directing policies at ensuring: a stable macroeconomic framework; an open and competitive micro-economy; a modern cohesive society; a healthy population; a highly skilled workforce; a highly skilled population; sound environmental management; a globally connected economy; and a solid research, development and innovation framework. The Government believes that focusing on these priority areas will help return New Zealand to the top half of the OECD rankings.

Building More Effective Innovation—Using a Sector Strategy Approach

The other key area was to build more effective innovation. It is planned that New Zealand's next phase of its economic development plan will be characterized by strong innovation. The intent is for New Zealand to become internationally recognized for its innovation, creativity, skills and lifestyle. The report identifies four pillars to building effective innovation:

- Enhancing the innovation framework;
- Developing skills and talents;
- Increasing global connectedness; and
- Focusing innovation initiatives in those areas which can have maximum impact.

It is the last pillar to building innovation that takes a sector strategy approach. Two primary reasons the government took a sector approach to innovation were: the government's familiarity with sector-based initiatives; and its limited resources.¹²⁰ Since 2001, the New Zealand Government has engaged with sectors (e.g., wood processing) to address barriers to growth such as skills shortages—leading to an appreciation that sector engagement strategies are an effective economic development tool which can focus limited resources on areas which can have maximum impact.¹²¹

¹²⁰ Cabinet Economic Development Committee, *Framework for Sector Engagement* (Wellington: Office of the Minister for Economic Development, September 2004), p. 1.

¹²¹ *Ibid.*

With input from the earlier engagement process, the Government identified three sectors with the potential to grow in their own right, and improve productivity across the economy due to their horizontal influence. These three sectors were: biotechnology; information and communication technology (ICT); and creative industries (which was subsequently separated into two separate sectors: screen production; and design). Although the Government remains committed to working with other sectors, it made a strategic policy decision to place greater emphasis and focus its attention on the four sectors mentioned above.

In May 2002, the Government established four private sector taskforces to develop sector specific strategies for biotechnology, ICT, screen production, and design. Each taskforce produced a report, and these reports were used to identify common themes, which included:¹²²

- The need for strengthened networks;
- The need for a skilled workforce, both present and future, including the need for greater emphasis on professional training to grow commercial and entrepreneurial skills;
- Improved evaluation statistics and performance measurements;
- Greater public awareness of the sectors;
- Access to finance; and
- Easier regulatory compliance.

New Zealand's Sector Approach to Strengthening Networks and Developing Skills and Talent

Two of the themes—strengthening networks and developing skills and talent—complement one another in delivering a sector approach to training and skills development. To oversee the sector strategies, in 2003, the four taskforces proposed the establishment of *industry governed bodies* to oversee the implementation of their growth strategies, to build the leadership capability of the sectors, and to continue communications with government. As well, they identified the need for tertiary education providers to improve coordination with industry sectors in an effort to produce graduates with relevant

¹²² Cabinet Economic Development Committee, *Response to GIF Taskforces: Paper 1: Overview Paper* (Wellington: Office of the Minister for Economic Development, December 2003), p. 1.

skills for industry. Finally, they proposed that practitioner-delivered content and professional accreditation and mentoring should be supported over time in order to raise the skill level of the workforce.¹²³

Many of the recommendations made by the taskforces are (and will be) addressed through existing government programs and budgets. However, in the 2003–2004 budget the Government allocated an additional \$110 million, over four years, to fund a number of the taskforces' initiatives requiring additional funding, such as building commercial and entrepreneurial skills.¹²⁴ For example, one of the 'pilot' tertiary-level initiatives—Entrepreneurship and Knowledge Transfer—will receive \$10 million over four years to address capability building in the four sectors. The aim of the pilot is to assist the sectors in developing a greater degree of commercial and entrepreneurial skills through activities like practitioner developed content.¹²⁵

Impacts of the Sector Approach to Skills Development in New Zealand

The sector approach outlined in the *Growth and Innovation Framework* is still in its infancy. Consequently, there is limited information on the effectiveness of this approach on skills development and ultimately business productivity in New Zealand. However, the New Zealand Government's continued support of the sector approach to skills development and training suggests individuals, businesses and the economy are benefiting. The fact that companies also strongly support the sector approach suggests that business people themselves perceive a clear benefit.

In 2004, the Government released a framework for sector engagement that proposes a set of criteria for selecting and prioritizing sectors and a process for whole-of-government engagement with sectors.¹²⁶

¹²³ Cabinet Economic Development Committee, *Response to GIF Taskforces: Paper 2: Cross-Sectoral Initiatives* (Wellington: Office of the Minister for Economic Development, December 2003). pp. 1-4.

¹²⁴ Cabinet Economic Development Committee, *Response to GIF Taskforces: Paper 1: Overview Paper* (Wellington: Office of the Minister for Economic Development, December 2003). p. 2.

¹²⁵ Cabinet Economic Development Committee, *Response to GIF Taskforces: Paper 2*. p. 5.

¹²⁶ Cabinet Economic Development Committee, *Framework for Sector Engagement* (Wellington: Office of the Minister for Economic Development, September 2004). p. 1.

Although no performance data on skills development is currently available, the New Zealand Government prepared a benchmarking report, *Growth and Innovation Framework: Benchmark Indicators Report*, in 2003, which identified 17 growth and innovation indicators, a number of which focus on talent and skills, including: educational attainment of the population; up-skilling of the workforce; and new inflow of skilled people.¹²⁷

New Zealand's Growth and Innovation initiative is moving the country toward a sectoral approach to skills development and training. Although it is still too soon to tell how effective this initiative will be in developing skills and improving business productivity, the buy-in among key business and government stakeholders is growing, and the New Zealand government is committed to the approach.

THE UK'S DEMAND-LED APPROACH TO EMPLOYERS' SKILLS AND TRAINING NEEDS

The Importance of Knowledge and Skills to the UK Economy

The UK (England, Scotland, Northern Ireland and Wales), like many other OECD countries, recognizes that it is dependent on the knowledge and skills of its workforce for productivity gains and competitiveness. The changing marketplace and global competition highlight the need for investment in skills. Preparing people for employment is important so that they have the right skills for today and tomorrow's jobs. Innovation, efficiency, and productivity depend on a highly skilled and competent workforce.

However, a number of recent studies coming out of the UK illustrate a troubling trend in terms of skills shortages and skills gaps. For instance, the 2003 National Employers Skills Survey showed that UK businesses across all sectors are affected by skills

¹²⁷ Ministry for Economic Development, *Growth and Innovation Framework: Benchmarking Indicators Report 2003* (Wellington: Ministry for Economic Development, 2003). These indicators do not focus their attention on direct outcomes to individuals and businesses. For instance, they don't give insight on individuals' employment experience such as higher wages, promotions or other outcomes. And for businesses, there are no indicators that show whether skills development and training leads to improved business productivity. However, the Government is collecting macro-indicators like labour productivity to provide information about the country's productivity performance.

deficiency.¹²⁸ As well, in 2004, the National Institute of Economic and Social Research estimated that 20 per cent of the productivity gap between the UK and Germany was due to a poorly skilled workforce.¹²⁹ In *'Mind the Gap', Skills: Transforming Business*, a 2004 report, more than one in five employers (22 per cent) said that their workforce's skills were not up to scratch. This has a direct impact on the bottom line for nearly a third of employers, who said that these skills deficiencies resulted in higher operating costs, orders being lost, and new product development being delayed.¹³⁰ Another worrisome skills trend for UK employers is that in the next ten years, it is estimated that 80 per cent of all new jobs will require people with Level 3 and 4 National Vocational Qualifications (NVQ)—levels that are not being adequately met today.¹³¹

The UK's Response to the Skills Challenges

In 1997, the UK began establishing National Training Organizations (NTOs). The role of NTOs was to provide a strategic overview of sectoral skills priorities, and to take action to meet them. They were also to provide a link between employers and the education and training systems in each country. Although progress was made in establishing NTOs, concerns about their effectiveness in developing sector skills was raised in England, Wales and Scotland.¹³²

Some of the more pressing concerns about the UK's NTOs included that: NTOs were not seen to sufficiently understand employer needs; the quality of sector skills analysis by NTOs was too variable; too many NTOs failed to appreciate how training might help to improve business performance or public services; too few NTOs had sufficient reach of influence within their sector; too little was done by NTOs to articulate business expectations in schools, colleges and universities; and many NTOs had a

perceived lack of credibility which meant that too many senior employers and trade unionists declined to engage with them.¹³³

Consequently, a consultation process with NTOs, employers, trade unions and the education and training community was initiated to determine the future development of the NTO network. Following the government review of NTOs, this network and the National Training Organization Council ceased to exist.¹³⁴

Sector Skills Councils

In place of the National Training Organizations, a new demand-led approach that responded to employers' skills and training needs was initiated in 2001-2002. This sector skills approach involved the creation of Sector Skills Councils (SSCs)—formally constituted bodies, developed, owned, and led by industry, and licensed by the Secretary of State for Education and Skills in consultation with Ministers in Scotland, Wales, and Northern Ireland, and a new central organization called the Sector Skills Development Agency (SSDA).

In total, there are 20 licensed SSCs in the UK—all of which are responsible for the skills development of those employed in their sector (from professionals to trades people), and in all sizes of firms (from small to large).¹³⁵ A list of Sector Councils is found in Table 5.

There are another five sector skills councils currently underdevelopment, including:¹³⁶

- *Lifelong Learning UK* for employers who deliver and/or support the delivery of lifelong learning;
- *Proskills* for employers of processing and manufacturing of extractives, coatings, refractories, building products, paper and print;
- *Creative and Cultural Skills* for arts, museums and galleries, heritage, crafts and design;

¹²⁸ Miles Templeman, "Tackling the Skills Crisis," *Skills: Transforming Business* (London: Director Publications Ltd., December 2004). p. 5.

¹²⁹ Chris Banks, "The Backbone of the Economy," *Skills: Transforming Business* (London: Director Publications Ltd., December 2004). p. 7.

¹³⁰ Alison Coleman, "Mind the Gap," *Skills: Transforming Business* (London: Director Publications Ltd., December 2004). p. 10.

¹³¹ Alison Coleman, "How did We get Here?" *Skills: Transforming Business* (London: Director Publications Ltd., December 2004). p. 15.

¹³² Department for Education and Employment (DfEE), *Building a Stronger Network: Developing the Role of National Training Organizations* (Nottingham: DfEE, 2001). p. 8.

¹³³ Department for Education and Skills, *Meeting the Sector Skills and Productivity Challenge*, (Nottingham: Department for Education and Skills, 2001). p. 6.

¹³⁴ Blake Stevenson Ltd., *Sector Skills Alliance Scotland: Customer Satisfaction Survey and Evaluation 2003-2004* (Edinburgh: Scottish Executive Research, August 2004). p. 1.

¹³⁵ *Ibid.* p. 9.

¹³⁶ Skills for Business, *Sector Skills Development Agency—Strategic Plan 2005/08*, pp. 53-54.
<<http://www.sdda.org.uk/ssda/pdf/Strategic%20Plan%200508.pdf>>.

Table 5
UK Sector Skills Councils

The SSCs and the sectors they cover	
1.	People 1st —Sectors: hospitality, leisure, travel and tourism
2.	SkillsSmart Retail —Sectors: retail
3.	Automotive Skills —Sector: retail motor industry
4.	SkillsActive —Sectors: active leisure and learning
5.	Skills for Logistics —Sectors: freight logistics industry
6.	GoSkills —Sector: passenger transport
7.	Energy & Utility Skills —Sectors: electricity, gas, waste management and water industries
8.	Skills for Health —Sectors: all groups working in National Health Services, independent and voluntary health organizations
9.	Improve —Sector: food and drink manufacturing and processing
10.	Lantra —Sectors: environmental and land-based industries
11.	e-skills UK —Sectors: information technology, telecommunications and contact centres
12.	Financial Services Skills Council —Sectors: financial services industry
13.	Skillset —Sectors: broadcast, film, video, interactive media and photo imaging
14.	Asset Skills —Sector: property, housing, cleaning and facilities management
15.	ConstructionSkills —Sector: construction
16.	SummitSkills —Sectors: building services engineering (e.g., heating and ventilation)
17.	SEMTA —Sectors: science, engineering and manufacturing technologies
18.	Skillfast-UK —Sectors: apparel, footwear and textile industry
19.	Cogent —Sectors: chemicals, nuclear, oil and gas, petroleum and polymer industries
20.	Lifelong Learning UK —Sectors: community based learning and development, further education, higher education, library and information services, work-based learning
21.	Skills for Justice —Sectors: custodial care, community justice and police
Source: Sector Skills Development Agency, List of Sector Skills Councils, 2005. < http://www.ssda.org.uk/ssda/default.aspx?page=16 >.	

- *Central Government* for government departments, executive agencies, and related non-departmental public bodies; and
- *Skills for Care and Development* for social care including children, families and young people.

Moving to the new SSC model offers employers a much stronger sector network. As well it brings them front and centre in addressing their sector's skills, productivity and competitiveness challenges. The new network of SSCs builds on past NTO achievements and gives employers a stronger voice in the planning and delivery of learning and skills development programs needed to meet their sector's collective skills and business needs.¹³⁷ Interestingly, because SSCs have the upfront support of a critical mass of employers within a sector, their impact on skills, training development, and productivity is significant.

The goals of SSCs are to:

- Reduce skills gaps and skills shortages—by 2008, for example, the SSCs, in partnership with their stakeholders, want to reduce skills gaps by 30 per cent, and skills shortages by 25 per cent;¹³⁸
- Improve productivity, business and public services performance through strategic actions based on analysis of sector priorities;
- Increase opportunities to develop and improve the productivity of everyone in a sector's workforce, including action on equal opportunities; and
- Improve learning supply, including the development of apprenticeships, higher education and national occupational standards—by 2008, for example, the SSCs want to see 10 per cent more employees receiving job-related training.¹³⁹

¹³⁷ *Meeting the Sector Skills & Productivity Challenge* (Nottingham: Department for Education & Skills, 2001). p. 1.

¹³⁸ Skills for Business, *Sector Skills Development Agency—Strategic Plan 2005/08*. p. 51.
<<http://www.ssda.org.uk/ssda/pdf/Strategic%20Plan%200508.pdf>>.

¹³⁹ Sector Skills Development Agency, *About the Sector Skills Councils* (South Yorkshire: SSDA, March 2005). <<http://www.ssda.org.uk/ssda/default.aspx?page=2>>; and Skills for Business, *Sector Skills Development Agency—Strategic Plan 2005/08*. p. 51.

The Sector Skills Development Agency (SSDA)

In 2002, the new Sector Skills Development Agency (SSDA) was established to fund, guide, and support the SSCs.¹⁴⁰ Together the SSDA and SSC comprise the *Skills for Business Network*.

The SSDA is a non-departmental public body, and is recognized as a company limited by guarantee. The Secretary of State for Education appoints the Chair and Chief Executive of the SSDA, and the Board itself, consists of employers, the public services and trade unions to ensure the relevance of SSC activities.¹⁴¹ The SSDA's primary roles are to:¹⁴²

- Assist employers in those sectors bidding to become SSCs;
- Fund, support and monitor the performance of SSCs across the UK;
- Support SSCs in identifying workforce performance priorities for joint action;
- Work with governments to deliver their commitment to employers that—through the SSCs—public policies and services support skills and productivity improvements in each business and public services sector;
- Ensure quality and consistent standards across the network;
- Ensure skills provision is designed to meet sector needs;
- Ensure generic skills are effectively covered in the work of SSCs;
- Promote best practice sharing and benchmarking between sectors;
- Support SSCs to deliver improvements in workforce performance through sector skills agreements between employers, government and other strategic partners;

¹⁴⁰ Department for Education and Skills, *Meeting the Sector Skills and Productivity Challenge* (Nottingham: Department for Education and Skills, 2001). p. 10. The SSDA also ensures that essential skills and workforce development functions are carried out in sectors where an SSC is not established.

¹⁴¹ Sector Skills Development Agency, *About the SSDA & Skills for Business*, (South Yorkshire: SSDA, March 2005). <<http://www.sdda.org.uk/ssda/default.aspx?page=1>>.

¹⁴² *Ibid*; and Skills for Business, *Sector Skills Development Agency—Strategic Plan 2005/08*. p. 4. <<http://www.sdda.org.uk/ssda/pdf/Strategic%20Plan%200508.pdf>>.

- Provide a website portal for public agencies and individuals to access sector labour market intelligence across the UK; and
- In those sectors of the economy where an SSC is not established, the SSDA ensures that essential skills and workforce development functions are implemented.

Another key policy initiative was the Skills Strategy launched by the government in 2003. The intent of this strategy is to maximize the contribution of skills to raising productivity, economic competitiveness and sustainable employment in the UK.¹⁴³

The UK's SSDA and Network of SSCs are Reaping Numerous Skills Dividends

Since the approval by all four nations of a sector approach to their skills policies, the Sector Skills Development Agency and its SSCs has made progress in several areas. Keeping in mind that the sector approach and the Skills for Business network are relatively new (the process began in 2001–2002), some of the achievements as of 2004–2005 include:¹⁴⁴

- 20 Sector Skills Councils are licensed or are recommended for license, and there is support for 4 additional sectors.
- Over 75 per cent of the workforce is covered by licensed SSCs and SSCs in development; and there is positive engagement with those sectors not forming SSCs.
- There is support from employers for the mission and goals of the Skills for Business network—including its performance framework and evaluation strategy on baseline data.
- SSCs have played a driving role in the review of vocational qualifications and Modern Apprenticeships, and in the creation of Foundation Degrees.
- A comprehensive website is in place.

In the coming years, SSCs are expected to have implemented a number of measurable targets, including:¹⁴⁵

¹⁴³ Alison Coleman, “Aligning Skills to Business Strategy,” *Skills: Transforming Business* (London: Director Publications Ltd., December 2004). p. 23.

¹⁴⁴ Skills for Business, *The Story so Far*, (South Yorkshire: Sector Skills Development Agency, February 2004). p. 3.

¹⁴⁵ Department for Education and Skills, *Meeting the Sector Skills and Productivity Challenge* (Nottingham: Department for Education and Skills, 2001). p. 12.

- Reductions in skills gaps and skills shortages across all sectors, and increased speed of development and transition by sectors.
- Specific actions leading to improved productivity, business and public services performance.
- Action leading to the development that all workers within a sector's workforce—regardless of job function or occupation—will have the opportunity to improve their skills and knowledge.
- Improvements in the supply of learning and training programs.

The Scottish Way—Part of the UK Model with A Twist

Although part of the UK initiative to address skills development and training, Scotland also offers additional support such as programs and funding.

Sector Skills Alliance Scotland (SSAScot)

With the restructuring of the NTOs and a new strategic direction, the Scottish Council of National Training Organizations changed its name to Sector Skills Alliance Scotland (SSAScot). Its vision is to 'empower Sector Skills Bodies in Scotland' and its mission is to 'act as the collective voice of Sector Skills Bodies in Scotland'. The SSAScot delivers advice and support on skills policies and strategies specific to Scotland. Its main roles are to:¹⁴⁶

- Facilitate Sector Skills Bodies collectively.
- Provide guidance and advice to Sector Skills Bodies and key stakeholders.
- Provide a forum for the exchange of information on skills issues.
- Promote awareness and understand of Sector Skills Bodies.

An evaluation of SSAScot's effectiveness in meeting its objectives and providing customer satisfaction was published in 2004. Overall, the report found that SSAScot delivers a range of quality services effectively and efficiently. However, one challenge facing SSAScot is in distinguishing its services from

those delivered by the Sector Skills Development Agency (SSDA).¹⁴⁷

Scotland's Skills Fund

During the transition from the NTO network to the development of Sector Skills Councils (SSCs), the Scottish Executive of SSAScot wanted to: maintain existing skills projects; continue to develop a learning culture; tackle skills gaps, skills shortages and other related issues; and encourage skills development in employment sectors. Consequently, a Skills Fund was created to assist in the development of SSCs and help the industry-led Skills for Business Network run projects in Scotland. This Fund was meant as a stop-gap measure, and eventually, other funding routes are expected to replace the Skills Fund.¹⁴⁸

Another helpful service for the SSCs in Scotland has been the development of sector profiles, prepared by Futureskills Scotland. Here, employer-based survey data is used to summarize key labour market information such as skills shortages and gaps for industry sectors across Scotland. These profiles have assisted Scottish SSCs in making informed labour market decisions.¹⁴⁹

In summary, improving productivity and competitiveness in the UK is being addressed, in part, by focusing on human capital. The UK has taken an industry-led, sector skills development approach which gives employers an opportunity to address skills in order to meet their business needs. Furthermore, SSCs knowledge of skills gaps and skills shortages provides them with an opportunity to help direct future policy development around learning and skills.

¹⁴⁶ Blake Stevenson Ltd., *Sector Skills Alliance Scotland: Customer Satisfaction Survey and Evaluation 2003-2004* (Edinburgh: Scottish Executive Research, August 2004). p. 2.

¹⁴⁷ Blake Stevenson Ltd., *Sector Skills Alliance Scotland: Customer Satisfaction Survey and Evaluation 2003-2004* (Edinburgh: Scottish Executive Research, August 2004). pp. i-vii.

¹⁴⁸ John Rodger and Alison Hunter, *Evaluation of the Scottish Skills Fund* (Edinburgh: York Consulting, July 2004). pp. 1-4.

¹⁴⁹ Futureskills Scotland, *Audio Visual Sector: Scottish Sector Profile* (Glasgow: Futureskills Scotland, April 2004).

THE ROAD AHEAD

Canada has long been regarded as a country of opportunity. However, its ability to create, and thereby drive its performance and realize its potential, depends fundamentally on building and sustaining a highly skilled and knowledgeable population. Individuals, companies, and governments alike must continually revisit and refresh their commitment to learning and skills development. Left unchecked, the cumulative effect of Canada's relative under-investment in training and skills development, year after year, could very well lead to a gap in essential knowledge and skills too difficult to bridge.

Canada's Sector Council Program—through its network of Sector Councils—has much to offer employers, individuals, and governments in addressing their critical skills gaps and skills shortages. By pushing forward the sectoral approach to learning, Sector Councils are helping build the skills and knowledge needed by our companies and sectors to remain competitive and productive. By developing important exchange networks—where government, labour, education, employers of all sizes and sectors can come together and create effective and practical learning solutions—Sector Councils are building and facilitating critical links between key stakeholders within the learning-work continuum.

The role of Sector Councils in championing and facilitating the ongoing development of relevant and applicable skills and learning programs, resources, and services, including: occupational standards and certification programs; labour market information; outreach and promotional materials; career awareness and information kits; distance-learning programs; internship, co-operative learning and apprenticeship programs; professional recognition initiatives; and recruitment services, is something that is widely understood by national governments in comparator countries. The sectoral approach to training and skills development is well established in many OECD countries.

Sector Councils play an important role in support of achieving federal government social and economic objectives—as par of the federal Workplace Skills Strategy. By their very nature and design, Sector Councils are evolving, dynamic entities—responsive to the changing needs of the economy, society and governments. They have the potential, for example, to play an even more substantial role in the future, as more companies and sectors engage in sector-based skills activities. Making Sector Councils critical components of Canada's learning and skills strategy—and focusing on outcomes that affect how employees and companies learn and apply new skills—is the underpinning for Canada's Sector Council Program. It is necessary, therefore, that the impacts of sector council initiatives and interventions are carefully examined in order to assess and monitor their continued relevance and strategic importance.

APPENDIX A: LIST OF CANADA'S NATIONAL SECTOR COUNCILS

1. Aboriginal Human Resources Development Council of Canada (AHRDCC)
(Saskatoon) www.ahrdcc.com
 2. Apparel Human Resources Council (AHRC)
(Montreal) www.apparel-hrc.org
 3. Biotechnology Human Resource Council (BHRC)
(Ottawa) www.bhrc.ca
 4. Canadian Apprenticeships Forum (CAF)
(Ottawa) www.caf-fca.org/
 5. Canadian Automotive Repair and Service Council (CARS)
(Ottawa) www.cars-council.ca
 6. Canadian Aviation Maintenance Council (CAMC)
(Ottawa) www.camc.ca
 7. Canadian Council of Professional Fish Harvesters (CCPFH)
(Ottawa) www.ccpfh-ccpp.org
 8. Canadian Food Industry Council (CFIC)
(Toronto) www.canadianfoodindustrycouncil.com
 9. Canadian Plastics Sector Council (CPSC)
(Ottawa) www.cpsc-ccsp.ca
 10. Canadian Steel Trade and Employment Congress (CSTEC)
(Toronto) www.cstec.ca
 11. Canadian Technology Human Resources Board (CTHRB)
(Ottawa) www.cthrb.ca
 12. Canadian Tourism Human Resource Council (CTHRC)
(Ottawa) www.cthrc.ca
 13. Canadian Trucking Human Resources Council (CTHRC)
(Ottawa) www.cthrc.com
 14. Child Care Human Resources Sector Council (CCHRSC)
(Ottawa) www.ccsc-cssge.ca/
 15. Construction Sector Council (CSC)
(Ottawa) www.csc-ca.org
 16. Contact Centre Canada
(Ottawa) www.contactcentrecanada.ca
 17. Council for Automotive Human Resources (CAHR)
(Toronto)
 18. Cultural Human Resources Council (CHRC)
(Ottawa) www.culturalhrc.ca
 19. Environmental Careers Organization of Canada (ECO Canada)
(Calgary) www.eco.ca
 20. Forum for International Trade Training (FITT)
(Ottawa) www.fitt.ca
 21. Installation, Maintenance and Repair Sector Council (IMRSC)
(Toronto) www.imrsectorcouncil.ca
 22. Mining Industry Training and Adjustment Council-Canada (MITAC)
(Ottawa) www.mitac.ca
 23. Motor Carrier Passenger Council of Canada (MCPCC)
(Thornhill) www.buscouncil.ca
 24. National Seafood Sector Council (NSSC)
(Ottawa) www.nssc.ca
 25. Petroleum Human Resources Council of Canada (PHRCC)
(Calgary) www.petrohrsc.ca
 26. Police Sector Council
(Ottawa)
 27. Software Human Resource Council (SHRC)
(Ottawa) www.shrc.ca
 28. Textiles Human Resources Council (THRC)
(Ottawa) www.thrc-crhit.org
 29. Wood Manufacturing Council (WMC)
(Ottawa) www.wmc-cfb.ca
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APPENDIX B: OVERVIEW OF CANADA'S NATIONAL SECTOR COUNCILS

The following information was collected from: The Government of Canada's *Sector Council Fact Sheet Project*, (Sector Council Program, Human Resources Skills Development Canada), March 2004.

1. **Aboriginal Human Resources Development Council of Canada (AHRDCC)**

Sector: Aboriginal people make up approximately 4.4 per cent of the Canadian population and represent one of Canada's fastest growing labour markets. A variety of issues impede Aboriginal peoples' ability to fully participate in the labour market including: low education attainment levels; low literacy rates; and few opportunities to gain work experience and skills development. As a result, employers lack of access to skilled Aboriginal workers.

Focus: Launched in 1998, with the mandate to develop career and skills development opportunities that allow Aboriginal people to fully participate in Canada's economy, the Aboriginal Sector Council is a national public-private organization that creates partnerships between Aboriginal organizations, the private sector, and federal, provincial and territorial governments. As a pillar in the Government of Canada's Aboriginal Human Resource Development Strategy, the Aboriginal Sector Council forges linkages between Aboriginal Human Resource Development Agreement (AHRDA) holders and other national Sector Councils. The Council builds bridges between the supply side of the Aboriginal employment equation (workers) and the demand side (employers).

2. **Apparel Human Resources Council (AHRC)**

Sector: The Canadian apparel industry manufactures garments ranging from lingerie to industrial work wear. The industry is made up of approximately 2,000 companies and generates about \$8 billion in revenues and exports approximately \$4 billion in goods annually. With a workforce of nearly 72,000 people, (0.7 per cent of the labour market) the apparel industry makes up 4.5 per cent of all manufacturing jobs in Canada. Prompted by the elimination of quotas to Less Developed Countries, China's entry into the World Trade Organization, and the lifting of all import quotas in by January 2005, the apparel industry is transforming its production methods, and increasing the skills of its workforce in order to remain competitive.

Focus: Established in 1997, AHRC serves the human resources development and adjustment needs of the

apparel manufacturing industry. Its mandate is to ensure that the Canadian apparel industry attracts and retains a new generation of skilled workers to support the industry's continued growth. AHRC works in partnership with key sector stakeholders, including: management, labour, provincial and national industry associations, government departments, and educational institutions to attract and retain talent.

3. **Biotechnology Human Resource Council (BHRC)**

Sector: Biotechnology is the application of science and technology to living organisms for the production of knowledge, goods and services. Biotechnology is used in a number of sub-sectors, including: human health, agriculture, natural resources, environment, aquaculture, bioinformatics, pharmaceuticals, and food processing. There are approximately 375 core firms in the biotechnology industry employing over 62,000 people. Biotechnology revenues in Canada have increased from \$1.9 billion in 1999 to \$3.6 billion in 2001—illustrating the rapid growth of the industry.

Focus: Established in 1997, BHRC's core purpose is to grow Canada's pool of biotech talent. BHRC designs, distributes and promotes programs and services of value to Canada's biotechnology industry that will attract, develop and retain a highly-skilled Canadian workforce essential for the industry's sustainable growth and international competitiveness. BHRC is currently conducting a Sector Study of the biotechnology human resource landscape in Canada which will lay the foundation for future decision-making on issues affecting the biotechnology sector's greatest asset, its human capital.

4. **Canadian Apprenticeships Forum (CAF)**

Sector: Workers in the skilled trades are found in every sector of the Canadian economy. Journeypersons and apprentices are at work in skilled trades occupations in communities across the country. Each of the Provinces and Territories has constitutional authority for apprenticeship training. Essentially, there are 13 different apprenticeship training systems and over 200 designated trades in Canada—45 of which are recognized as Red Seal trades, which allow journeypersons to work across Canada.

Focus: CAF-FCA is made up of representatives from business, labour, the Inter-provincial Alliance of Apprenticeship Board Chairs (IPA), educators, persons with disabilities, members of visible minorities, aboriginal persons, women, the Canadian Council of Directors of Apprenticeship (CCDA) and the Government of Canada. CAF-FCA operates with two distinct objectives: to promote apprenticeship as

an effective training and educational system that contributes to the development of a skilled labour force; and to provide a mechanism for key stakeholders to support apprenticeship delivery systems across Canada.

5. **Canadian Automotive Repair and Service Council (CARS)**

Sector: The Canadian car and truck repair and service sector employs over 200,000 people at over 27,000 retail outlets across Canada—mainly in car dealerships, retail franchises, service stations, collision repair facilities, and independent automotive repair facilities. Providing service to owners of 17 million vehicles in Canada, 2002 revenues for the sector are estimated at \$15.6 billion—\$9.3 billion in parts, and \$6.3 billion in services.

Focus: Established in 1988, CARS serves the human resource training and development needs of the Canadian car and truck service repair industry. The CARS Council is a federation of seven national organizations, including the CARS Institute which provides the automotive repair and service employees' perspective. CARS works with businesses, educational institutions and national organizations to develop the skills and knowledge of employees, managers, and trainers; to accredit standards for programs and facilities, and to promote and encourage learning and the sharing of information among all stakeholders within the sector.

6. **Canadian Aviation Maintenance Council (CAMC)**

Sector: Canada boasts the world's 4th largest aviation/aerospace sector, and is the leader in several areas including regional jets, gas turbine engines and helicopters. The aviation and aerospace industry in Canada employs over 140,000 workers.

The aviation maintenance sub-sector, which services, repairs, overhauls, retrofits and remanufactures all types of aircraft and components—serves both the domestic and international marketplace and employs approximately 30,000 workers in 1,100 organizations, and generates \$3.9 billion in sales. The aerospace manufacturing sub-sector—including original equipment manufacturers, subassemblies and parts, space products manufacturers, and researchers employs approximately 60,000 people in 200 companies, and generates over \$15 billion in sales. The remainder of the workforce is made up of a wide range of occupations including: management, engineering, scientific, training, flight operations, pilots, cabin crew, navigation, and servicing and airport operations.

Focus: Established in 1991, CAMC's mission is to develop, promote, and administer the human resources strategy for the aviation and aerospace industry and its board is composed of an equal number of employer and employee organizations. CAMC champions and encourages initiatives in order to develop the overall strength of the workforce and economic well-being of the Canadian aviation maintenance and aerospace industry.

7. **Canadian Council of Professional Fish Harvesters (CCPFH)**

Sector: Although small in absolute terms, fish harvesting represent a major source of jobs for many of Canada's coastal communities. The industry employs approximately 30,000 seasonal workers (excluding aquaculture sector employees). There are approximately 20,200 active commercial fishing vessels in Canada today, the majority of which are owned and operated by the registered license holder. In 1999, the fish harvesting sector generated 1.1 million tons of landings worth over \$2 billion, which contributes in excess of \$4 billion of exports to the Canadian economy.

Focus: Established in 1995, the CCPFH represents the interest of the major commercial fish harvester organizations across Canada particularly as it applies to issues concerning the welfare of independent, owner-operators of fishing vessels and crew members. In support of its constituency, the Council plays a lead role in promoting the "professionalization" of those in the industry and supports regional organizations attempting to establish certification regimes. Overshadowing all of this is the Council's growing attention to matters of skills development and resource needs for the industry in the months and years ahead.

8. **Canadian Food Industry Council (CFIC)**

Sector: The food retail and wholesale sector is a major Canadian employer that is facing increasingly intense competitive pressures. In 1995, the food retail sub-sector employed over 330,000 people; and the food wholesale sub-sector employed over 65,000 people.

Focus: The mandate of the Canadian Food Industry Sector Council (CFIC) — a joint labour management human resources initiative, which commenced operations in late 2003, is to improve the image of the food retail and wholesale industry so it can better attract and retain new and future employees by enhancing job satisfaction and career potential.

9. **Canadian Plastics Sector Council (CPSC)**
Sector: Approximately 3,700 firms across Canada produce plastic products that other industries use to manufacture motor vehicles, building materials, packaging, electronics and other products. The industry employs 160,000 people. The plastics industry generated annual revenues in excess of \$40 billion in overall imports and exports in 2002, and accounted for an average of 3.59 per cent of Canada's Gross Domestic Product (GDP) for the period 1998-2003.

Focus: Established in 2000, the Canadian Plastics Sector Council is a partnership between employers and employees with a mission to enhance the competitiveness of the industry both nationally and internationally by helping to ensure a sufficient number of qualified workers. The Council develops programs and activities in the areas of career awareness and promotion, labour market research, skills development, job competencies, career development/continuing education, accreditation and qualification/recognition.

10. **Canadian Steel Trade and Employment Congress (CSTEC)**

Sector: Canada's steel sector generated over \$11 billion in sales and \$3.6 billion in exports in 1998. According to Statistics Canada, in 2001 the sector contributed \$5.8 billion to Canada's GDP. The industry directly employs 33,500 workers and supports 150,000 jobs across Canada. There are seventeen steel production facilities found in five provinces with Ontario accounting for 70 per cent of Canadian steel production.

Focus: Established in 1987, CSTEC is a joint venture between Canada's steel-producing companies and the United Steelworkers of America (USWA). CSTEC has helped the Canadian steel industry and its workers meet their evolving human resource challenges over the years. In response to industry restructuring, CSTEC's mandate has evolved to address the industry's critical human resource needs, including training and adjustment issues.

11. **Canadian Technology Human Resources Board (CTHRB)**

Sector: The importance of science and technology to the Canadian economy is significant. Technology workers are found in virtually all industry sectors including: mechanical engineering, agriculture, manufacturing, food production, health, and biochemistry. There are approximately 427,000 people employed in technical occupations related to natural and applied sciences—representing 2.7 per cent of Canada's total labour force. Technicians and

technologists represent 43 per cent of all people employed in natural and applied science occupations.

Focus: Established in 1995, CTHR B is a not-for-profit alliance of industry and education institutions representing the technology workforce. Its mission is to sustain Canada's technology sector by working with industry stakeholders to train, develop, represent and employ technicians and technologists. CTHR B develops youth initiatives and career awareness programs that introduce people (including women, minority groups, workers in transition and newcomers to Canada) about occupations in the applied sciences and engineering fields. CTHR B has developed competency standards for 13 technology-related disciplines covering over 115 occupations and 450 competency areas.

12. **Canadian Tourism Human Resource Council (CTHRC)**

Sector: Tourism is the world's largest and fastest growing industry and includes: accommodation, food and beverage service, travel trade, adventure tourism and outdoor recreation, attractions, events and conferences, transportation, and tourism services. Tourism spending in 2002 reached \$51.8 billion. In 2001, the Canadian tourism industry accounted for approximately 2.0 per cent of Canada's total GDP. At present the tourism industry employs approximately 1.6 million Canadians or 10 per cent of the Canadian workforce.

Focus: Established in 1993, CTHRC addresses labour market issues and promotes professionalism in the tourism industry. Collectively, Council members work on behalf of 159,000 businesses that make up the Canadian tourism industry. CTHRC brings together tourism businesses, labour unions, associations, educators and government to coordinate human resource development activities in support of a globally competitive and sustainable Canadian tourism industry. It provides resources, including: National Occupational Standards; on-line and paper-based training tools; and national Professional Recognition, including Professional Certification for 30 occupations—all in support of building a professional Canadian tourism workforce.

13. **Canadian Trucking Human Resources Council (CTHRC)**

Sector: The trucking industry is a vital part of Canada's economy, generating \$39 billion in revenues, in 2002, or approximately 1.2 per cent of GDP. The industry employs more than 400,000 workers. Of the approximately 50,000 trucking companies in Canada the majority of them, 80 per cent, are small and medium-sized operations.

Changes in technology, regulations and traffic patterns, combined with a boom in business, translate into a demand for a larger, better trained trucking workforce.

Focus: Incorporated in 1994, CTHRC provides the trucking industry with efficient and cost-effective tools to assist them in recruiting, training and retaining the human resources needed to meet current and long-term requirements of the trucking industry. One of the Council's main goals is to raise awareness about new long-term career opportunities in all trucking occupations. By increasing the pool of applicants and promoting better human resources management practices, the Council is helping to meet the demand for skilled workers.

14. **Child Care Human Resources Sector Council (CCHRSC)**

Sector: The child care sector touches the lives of 1.4 million Canadian children and employs more than 300,000 workers who are overwhelming female, young and relatively well educated. This workforce is composed of: Child Caregivers and Kindergarten/Elementary Teachers/ Assistants working in a variety of settings, including licensed and/or regulated child care centers, nursery schools, family homes, and unregulated child care settings.

Focus: The Child Care Human Resources Sector Council (CCHRSC), established in 2003, grew out of the Child Care Human Resources Round Table, a group established to deal with the recommendations in the 1998 sector study: *Our Child Care Workforce: From Recognition to Remuneration*—which identified coherent public policy and funding as critical elements necessary to develop an effective child care sector. CCHRSC's mission is to provide a sectoral structure for moving forward on human resource issues, through cooperative and collaborative actions that enhance the efforts of child care workers and national child care partners—including the Canadian Child Care Federation (CCCCF), the Child Care Advocacy Association of Canada (CCAAC), and major unions representing child care workers.

15. **Construction Sector Council (CSC)**

Sector: The construction industry is vital to Canada's economic growth. Not only does it account for 12 per cent of Canada's Gross Domestic Product (GDP) and employ almost one million workers, it also provides the necessary infrastructure for other industries to remain competitive.

Focus: Established in 2001, the CSC is a partnership between labour, business and government. Its goal is

to support the needs of the construction industry through the development of a highly skilled workforce and safe work environments. The mandate of the CSC is to identify and undertake projects and initiatives geared towards meeting the current and future human resource needs of the industry.

16. **Contact Centre Canada**

Sector: The Customer Contact Centre industry employs 500,000 people or 3.4 per cent of Canada's employed population. It contributes an estimated \$36 to \$38 billion to the nation's Gross Domestic Product (GNP). The industry has become a mission critical component of the competitiveness of the sales and service strategies for many of Canada's key industrial sectors. Financial services, telecommunications, utilities, transportation, service industries (such as hospitality, software, and retail) all rely heavily on customer contact centers to manage their relationships with their customers—the heart of their businesses. Customer contact centres also figure prominently in government strategies that seek to improve services to Canadians and reduce costs. The expanded role and increased use of contact centres has resulted in strong a 29 per cent annual employee growth rate over the past several years.

Focus: Established in 2003, the Council is a not-for-profit organization made up of contact centre organizations, labour representatives, provincial industry associations and educational institutions active in the Canadian contact centre sector. CCC's goal is to facilitate the creation of the strong and vibrant workforce needed to advance the local, national, and international initiatives of the sector. By coordinating the sector's overall human resource initiatives through the development and implementation of a national, integrated, long-term human resources strategy supported by industry stakeholders the Council will help all participants benefit from economies of scale and minimize duplication of effort.

17. **Council for Automotive Human Resources (CAHR)**

Sector: The automotive industry is an integral part of the Canadian economy. The automotive manufacturing sector is Canada's largest manufacturing sector accounting for 1.9 per cent of Canada's GDP (\$17.7 billion), and 25 per cent of total Canadian merchandise exports. Approximately 227,000 Canadians are employed in the automotive manufacturing industry.

Focus: Formed in 2003, CAHR is a results-oriented partnership among key stakeholders, including: government, education, industry, and labour; and to

address both current and future human resource requirements of the Canadian automotive manufacturing industry.

18. **Cultural Human Resources Council (CHRC)**

Sector: More than half a million Canadians, or approximately 3.1 per cent of the labour force, work in the cultural sector of the economy—a sector consisting of hundreds of occupations in six broad sub-sectors: music and sound recording, visual arts and crafts, writing and publishing, audio-visual and live performing arts, new interactive/media and heritage. Approximately 21 per cent of the cultural labour force is self-employed as opposed to 8 per cent of the Canadian labour force. Each year the cultural sector contributes an estimated \$33 billion in revenue to the Canadian economy.

Focus: Established in 1994, the CHRC brings together representatives from arts disciplines and cultural industries to address the training and career development needs of cultural workers—artists, creators, technical staff, managers and all others engaged professionally in the sector, including the self-employed. CHRC's mission is to strengthen the Canadian cultural workforce by providing leadership and innovative solutions to human resource issues and to better the human resource environment within the cultural sector.

19. **Environmental Careers Organization of Canada (ECO Canada)**

Sector: ECO Canada's 2004 Environmental Labour Market (ELM) study paints a very clear picture of a sector that has grown dramatically over the past decade. The study indicates that the environment sector employs over a quarter of a million people in a wide variety of fields ranging from engineering, biology, communications and law—among many others. For the environment sector to maintain its growth it is critical that potential human resource issues are rapidly identified and addressed.

Focus: Established in 1993, ECO Canada addresses the Canadian environment sector's human resource challenges by developing strategies that promote and enhance human resource standards. The Council services for four primary environmental client groups: employers, practitioners, educators and students with its mission to ensure an adequate supply of people with the demonstrated skills and knowledge required to meet the environmental human resource needs of the public and private sectors.

20. **Forum for International Trade Training (FITT)**

Sector: Canada is a trading nation, and more so than

ever before, its economic well-being is dependent on how well it performs in the international marketplace. In 2002, Canada's export industry generated an estimated \$468.5 billion towards the economy, comprising 41 per cent of GDP. The import industry accounted for an additional \$422.3 billion, or 37 per cent of GDP. One in four jobs in Canada is directly dependent on exports, and it is estimated that for every \$1 billion in new exports approximately 11,000 new jobs are created.

Focus: FITT is Canada's centre for the development of training and certification programs in international trade. Since 1993, FITT has developed and maintained quality curriculum in international trade to help prepare businesses and individuals to successfully compete in world markets. FITT is the only organization in Canada to accredit a professional designation to international trade practitioners: the Certified International Trade Professional (CITP). FITT programs are delivered across Canada in partnership with over 40 community colleges, universities, and training providers, as well as online.

21. **Installation, Maintenance and Repair Sector Council (IMRSC)**

Sector: New products, changing product technology, concern with the environment and demanding consumers have had a profound effect on the human resource needs of the consumer electronic and appliance service industry. According to the most recent statistics there are between 16,000 and 20,000 service shops in Canada made up of four groups: companies that manufacture and distribute consumer electronic and/or appliance products to retail and home consumers; service providers who are employed by companies to provide repair installation and maintenance services; repair service organizations that provide services only to the general public; and independent small-to-medium sized enterprises (SME) who provide service to both individual customers and industry. Between 32,000 and 40,000 service workers for appliance and electronic products are employed throughout all provinces and territories in Canada.

Focus: The IMR Sector Council is lead by a collaboration of dedicated champions from industry, education and the workforce to collectively address the human resource challenges in the consumer electronic and appliance installation, maintenance and repair service industry. By building a strong foundation on the cornerstones of labour market information, workforce development programs, skills competency and skills promotion initiatives, along with strong communication and partnership efforts the IMR Sector Council will ensure "*the right*

number of service workers with the right skills, in the right location to provide repair, installation and maintenance services throughout Canada.”

22. **Mining Industry Training and Adjustment Council-Canada (MITAC)**

Sector: Operating in all provinces and territories, the minerals and metals industry is one of Canada's most productive industrial sectors and is a major contributor to the country's ongoing economic prosperity and diversity. The mining industry in Canada is made up of four distinct stages: mineral extraction and concentrating; smelting and refining; semi-fabricated mineral production; and metals fabricating. There are approximately 99,100 employees in the mining industry—the majority (59,100) are employed in stage 1 coal, metal ore, and non-metallic mineral mining and quarrying. The mining industry, including manufacturing, accounts for 3.7 per cent of Canada's GDP and 12.7 per cent of its domestic exports. Stages 1 and 2 of the mining industry contribute over \$17 billion to the Canadian economy.

Focus: Founded in 1996 as a result of the report, *Breaking New Ground*—which recommended the establishment of a mining industry council to address sector wide human resource issues—MITAC works with industry stakeholders, including major mining companies and labour unions, to develop products and services that contribute to the development and maintenance of a highly skilled mining industry workforce.

23. **Motor Carrier Passenger Council of Canada (MCPCC)**

Sector: Canada's motor carrier passenger industry employs over 90,000 workers (0.5 per cent of the labour force) in services that connect communities together and enable the mobility of our economy. Today's bus industry includes urban transit, inter-city, tour and charter coach, accessible services transportation, and the familiar yellow school buses. Canada's bus industry is made up of operators, inspectors, mechanics, administrative staff and other occupations non-specific to the industry, generating total operating revenue estimated at \$6 billion. In 1998, urban transit and inter-city carriers provided transportation to nearly 1.4 billion passengers.

Focus: Established in 1999, MCPCC provides a critical linking point for all sectors of the motor carrier passenger industry, through which the industry itself identifies and addresses its human resource issues, and develops solutions. Working with labour, industry, educational institutions and government, the Council analyzes and disseminates

human resource best practices, education and training materials, management processes and professional standards—all aimed at harmonizing service throughout the industry's sectors and increasing the professionalism of the industry.

24. **National Seafood Sector Council (NSSC)**

Sector: Approximately 48,000 people work in Canada's seafood-processing industry—with seasonality greatly affecting employment levels. Most of the 1,000 processing plants in the sector are located in small communities on the east and west coasts and in Quebec. In 2001, the national seafood processing industry contributed \$819 million to the Canadian economy. Focusing on niche markets and value-added strategies, exports in the seafood-processing industry have been rising in recent years—reaching \$4.7 billion in 2002.

Focus: Established in 1995, NSSC works on behalf of a regionalized and rural labour force. Its unique partnership of employers, employees, unions, associations, regulatory agencies and training centres work toward building a strong seafood processing industry—made up of productive, knowledgeable and skilled workers. NSSC develops industry-specific training courses designed to meet the changing needs of the Canadian seafood processing sector—with a focus on quality control, production efficiencies, health and safety, and use of technology.

25. **Petroleum Human Resources Council of Canada (PHRCC)**

Sector: The Canadian oil and gas industry is comprised of three components: upstream, midstream and downstream. More than 500,000 Canadians work in the petroleum industry.

In 2002, the upstream petroleum industry contributed \$65 billion to the national economy, approximately 6 per cent of Canada's GDP, making it one of the largest contributors to the Canadian economy. The upstream industry consists of more than 1,000 exploration and production companies, as well as hundreds of associated businesses such as seismic and drilling contractors, service rig operators, engineering firms and various scientific, technical, service, and supply companies. It directly employs approximately 120,000 people.

Focus: Established in 2001, the Petroleum Council provides a national, collaborative forum to address human resources issues in the upstream petroleum industry. The Petroleum Council is supported by 11 oil and gas industry associations, including one union, representing the primary sectors of the upstream petroleum industry in Canada: exploration,

development, production, service industries, pipeline transmission, gas processing, and upgrading heavy oil and bitumen.

26. **Police Sector Council**

Sector: The policing sector includes all publicly funded organizations whose primary objective is to prevent, detect, and investigate crime and maintain law and order. The sector includes police personnel employed by municipalities, provinces and the federal government and excludes the private security sector, military police, railway police, peace officers, and First Nations policing. The sector employs approximately 76,000 workers across the country—three-quarters are sworn officers and one-quarter are civilians.

Focus: The Police Sector Council (PSC)—which will come into effect in the summer/fall of 2004—will improve the capacity of public police services to develop and implement effective human resource strategies for the sector. The Canadian Professional Police Association (CPPA) and the Canadian Association of Chiefs of Police (CACP) are the two lead organizations supporting the development of the PSC. Other supporters include: the Canadian Association of Police Boards and the Federation of Canadian Municipalities and federal, provincial and territorial ministries responsible for policing.

27. **Software Human Resource Council (SHRC)**

Sector: Total employment in the Information and Communications Technologies (ICT) sector was approximately 575,000 in 2002—the workforce has grown, on average, 5.2 per cent annually since 1995. The largest increase in ICT employment was in the software and computer services industries. The ICT sector represents approximately 5.5 per cent of Canada's GDP—approximately \$55 billion. The software and computer services sub-sector accounts for 28.4 percent (approximately \$16 billion) of the ICT sector's GDP and 45.6 per cent of ICT employment.

Focus: Established in 1992, SHRC is a non-profit sector council that focuses on workforce issues associated with Canada's ICT sector—including hardware, software and telecommunications disciplines. SHRC's mission is to facilitate and support collaborative action among Canadian industry, employees, educators, associations and governments to build a qualified, motivated and agile informatics workforce.

28. **Textiles Human Resources Council (THRC)**

Sector: Today's Canadian textile industry is innovative, technology-driven and capital intensive.

It produces a wide range of fibres, yarns and fabrics that are used by more than 150 industries. The textile industry employs more than 48,000 people and, in 2002, the industry's sales were \$6.6 billion. Exports have increased from \$800 million in 1989 to \$3.5 billion in 2002. The industry accounts for approximately 2.5 per cent of total manufacturing industry employment in Canada, and contributes over \$2 billion to Canada's GDP.

Focus: The Council was established in 1994 and is led by a Board equally comprised of company chief executives and senior union representatives. A structured, Board-led planning process led to the identification of five key priorities that respond to the needs of its comprehensive, paid membership base. THRC works to develop innovative skills solutions that respond to established and emerging human resources needs, seeks to foster a continuous learning environment and enhance the industry's image.

29. **Wood Manufacturing Council (WMC)**

Sector: The advanced wood manufacturing sector produces windows, doors, kitchen cabinets, furniture, architectural millwork, hardwood flooring, pre-fabricated buildings and other millwork products. The industry is increasingly becoming a knowledge-based, value-added industry that manufactures specialized, high value wood products. Currently employing 114,805 workers, this sector is now one of the principal areas of growth within the forest products industry and holds significant potential for future growth. It is estimated that the wood manufacturing sector contributes \$7 billion to the Canadian economy.

Focus: Established in 2001, WMC develops human resource strategies that support the long-term growth and competitiveness of Canada's advanced wood products manufacturing industry and meet the developmental needs of its workforce. WMC serves as a national forum and brings together employers, workers, educators, government, and other stakeholders to analyze, identify and address the wood manufacturing sector's human resources challenges and to ensure that the sector promotes and develops the right mix of skills and knowledge needed to compete in today's global economy.

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