

Catalogue no. 75-001-XIE PERSOPECTIVES ON LABOUR AND INCOME

FEBRUARY 2003 Vol. 4, No. 2

- THE RETIREMENT WAVE
- QUALITY OF JOBS ADDED IN 2002







At Your Service...

How to obtain more information

Specific inquiries about this product and related statistics or services should be directed to: Perspectives on Labour and Income, 9 A-6 Jean Talon, Statistics Canada, Ottawa, Ontario, K1A 0T6 (telephone: (613) 951-4608; e-mail: perspectives@statcan.ca).

For information on the wide range of data available from Statistics Canada, you can contact us by calling one of our toll-free numbers. You can also contact us by e-mail or by visiting our Web site.

National inquiries line	1 800 263-1136
National telecommunications device for the hearing impaired	ce 1 800 363-7629
Depository Services Program inqui	iries 1 800 700-1033
Fax line for Depository Services	
Program	1 800 889-9734
E-mail inquiries	infostats@statcan.ca
Web site	www.statcan.ca

Standards of service to the public

Statistics Canada is committed to serving its clients in a prompt, reliable and courteous manner and in the official language of their choice. To this end, the agency has developed standards of service which its employees observe in serving its clients. To obtain a copy of these service standards, please contact Statistics Canada toll free at 1 800 263-1136.

Perspectives on Labour and Income

(Catalogue no. 75-001-XIE; aussi disponible en français: L'emploi et le revenu en perspective, nº 75-001-XIF au catalogue) is published monthly by authority of the Minister responsible for Statistics Canada. ©Minister of Industry 2003. ISSN: 1492-496X.

PRICE: CDN \$5.00 per issue, CDN \$48.00 for a one-year subscription, plus applicable taxes.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any other means, electronic, mechanical, photocopying, recording or otherwise, without prior written permission from Licence Services, Marketing Division, Statistics Canada, Ottawa, Ontario, Canada K1A 0T6.

Symbols

The following standard symbols are used in Statistics Canada publications:

- not available for any reference period
- not available for a specific reference
- period
- not applicable
- p preliminary
- revised x
- confidential use with caution E
- too unreliable to be published F

Highlights

In this issue

The retirement wave

- In the education and health-care sector, 64% of men and 63% of women were 40 years of age or older in 1999.
- Retail trade and consumer services occupied the opposite end of the age spectrum; 32% of men and 36% of women were less than 30.
- Managers comprise the oldest, most experienced group of employees. In 1999, 90% of managers had 10 years or more experience, and 55% were aged 40 or older. In comparison, only 35% of marketing and sales employees had reached age 40.
- With an estimated retirement rate of 121 per 10,000, education stood out as the industry with the highest rate of retirement in 1999.

Quality of jobs added in 2002

- The average hourly wage continued to rise, reaching \$17.66 in 2002. The 2.8% increase between 2001 and 2002 was higher than the average annual growth in the consumer price index in 2002 (2.2%).
- Part-time employment grew by 7.7% (213,000) between December 2001 and December 2002, the largest annual increase since 1981.
- Although seven provinces increased their minimum wage in 2002, the proportion of employees paid at this level was 4.7%, down slightly from the previous year (-0.1%).
- The majority of jobs with the largest gains were full-time and had an average weekly wage higher than for all employees.

Perspectives

г.	DFR ONLA THE CON ofr	SPE BOUR A APREHEN In labour an om Statisti	A N D NSIV nd inc	I N C E JO come nada	O M E		
☐ Yes, I (Cata	want PERSPECTI logue no. 75-001-XP	VES ON LABOUR A PE). S on Labour and I	AND INCO	ME oday!	by ex sub sub by subsc Only \$9, by subscr Only (plu (plu	Save tending y Scription ave 20% oribing for 2 years 2.80 (plus taxes) ave 30% ibing for 3 years! y \$121.80 is taxes)	our !
Katistics Canac Statistics Canac Circulation Man 120 Parkdale A Ottawa, Ontario Canada K1A OT Name Company Address Postal Code Catalogue No. 75-001-XPE	L A agement renue 3 E 1800 207-6677 Charge to VISA or MasterCard. Outside Canada and the U.S., and in the Ottawa area, call (13) 951-7277. () Phone Perspectiv	FAX Image: Constraint of the second confirmation for phenomenation for phenomenating phenomenation for phenomenation for phenome	E-MAIL @statcan.ca none or fax orders. Province	METHOD C Charge to Card Numb Authorized Cardholder Payment I Purchase Authorized Subscription	DF PAYMENT my: Maste Der Signature (Please print) Enclosed \$ Order Number Signature Price (CDN \$) 58.00	(Check only one) rCard	VISA Expiry Date
75-001-XPE	Perspectiv ALL PRICES EXCL Canadian clients add 7% GS GST # R1 eque or money order should be made PF 0	UDE SALES TAXES. ST and applicable PST or HST. 121491807. payable to the <i>Receiver General for Cana</i> 197042	ada.	1 year 2 years 3 years Subtotal GST (7%) - (Cana Applicable PST (C Applicable HST (N. Shipping charges U Grand Total	58.00 92.80 121.80 dian clients only, when anadian clients only, w S., N.B., Nfld.) J.S. CDN \$24, other co	re applicable) vhere applicable) untries CDN \$40	



The retirement wave

Andrew MacKenzie and Heather Dryburgh

A SIN MANY OTHER industrialized nations, Canada's population is relentlessly aging, raising a range of individual, organizational and societal challenges. One of the key challenges for employers will be the availability of qualified workers as the baby boom generation, about half of Canada's labour force, enters retirement.

The baby boom began just after World War II and lasted until the mid 1960s, when the broad availability of the pill and increasing participation in postsecondary education signalled the beginning of the baby bust. Today, the oldest of the boomers are 55 and eligible for retirement benefits in many private pension plans. They are the beginning of a rising wave of retirements that should reach its peak about the time the largest birth cohorts (1960 and 1961) hit the median retirement age (about 61) in the early 2020s. This retirement wave will wash a substantial amount of talent and experience out of the workforce. Although awareness of the impending loss is widespread (Bolch 2001; Bovbjerg 2001; Kotlikoff, Smetters and Walliser 2001; McEvoy and Blahna 2001; Regets 2001), until recently, little empirical analysis has been done to examine the industries and occupations that will be most affected.

The retirement of the baby boom generation represents a challenge for workplaces to replace the outgoing talent and experience (Foot 1998). Just as the baby boomers entered the workforce in large numbers, companies must also be prepared for their mass retirement. The Workplace and Employee Survey (WES) combines information on both employers and employees. This unique database provides some signals as to which industries and occupations are likely to feel the effects sooner than others (see *Data source and definitions*).

Andrew MacKenzie is with Statistics Canada and temporarily on assignment with the Canadian Council on Social Development. He can be reached at (613) 236-5868, ext. 243 or mackenzie@ccsd.ca. Heather Dryburgh is with Housing, Family, and Social Statistics Division. She can be reached at (613) 951-0501 or heather.dryburgh@statcan.ca.

Data source and definitions

The data are from the first year (1999) of the **Workplace** and **Employee Survey** (WES). Covering both workplaces and employees, the survey provides a link between workplace changes and the effects on workers. Workplaces were sampled from Statistics Canada's Business Register, and employees were then sampled from the selected companies.

Three separate baby-boomer age groups were studied: 34 to 39; 40 to 45; and 46 to 52.

Fourteen industry and six occupation groups were used.

WES does not survey workplaces in crop and animal production; fishing, hunting and trapping; private households; and public administration. The last omission is noteworthy. Preliminary demographic data from other sources (including data on the staff of Statistics Canada) suggest that public administration has an older demographic structure and may encounter replacement stress earlier than some other industries as the baby boom generation retires.

This paper looks at age distributions and highlights industries with older workforces and relatively young retirement ages. Then, age differences among occupational groups are used as pointers to succession issues within industries. Finally, current measures of turnover and unfilled vacancies are used to determine whether aging is already affecting some sectors of the economy.

Employee age and retirement patterns

Retirement is not simply a matter of turning 65, getting a gold watch, and saying goodbye to the workplace. Retirement is a complex process related to financial considerations, family situation, social norms, and contractual arrangements (see, for example, Pyper and Giles 2002). However, retirement patterns do vary systematically across industries in a predictable manner; those industries and occupations characterized by more generous private pension plans tend to have a lower retirement age. Predictable replacement pressures will arise where employers have both a low average age of retirement and an older workforce. These workplaces are, in effect, being squeezed from two directions. Industries and occupations where the squeeze is most imminent can already be identified.

Education and health care: high median ages, low retirement ages In the education and health-care sector, 64% of men and 63% of women were 40 years of age or older in 1999 (Table 1). The average age of employees in this sector was the highest of all industries at 42.7 (Chart A). The education workforce was roughly two years older than health care, 44.3 versus 42.0. According to the Labour Force Survey, the median retirement age in 1999 was 56.4 for employees in educational services and 61.8 in health care. Thus, in education, only 12 years separated the median age of employees from the median retirement age; in health care, 20.

Several factors have contributed to the high average age in education and health care. Both industries felt the sting of budgetary cutbacks in the 1990s, as all levels of government wrestled with deficit problems. Demographics also contributed to some slackening of demand for elementary and high school teachers. As well, both industries have relatively high educational requirements, so their entrants are older than entrants in most other industries.

However, education and health care are not alone in facing an aging workforce. Forestry, mining, and oil and gas; and communication and other utilities also have older workforces. Some 58% of forestry, mining, and oil and gas workers were 40 or older, as were

Table 1: Industry employment by age and sex

				/	Age			
	<25	25-29	30-33	34-39	40-45	46-52	53-59	60+
Ecrostry mining oil o	nd	_			%			
Men	nu ya: 4) 10	5	24	20	22	13	2
Women	6	8	8	20	28	25	2	3
Manufacturing Primary products								
Men	5	7	6	22	24	21	12	3
Women	6	14	6	20	21	20	11	1
Secondary products	Q	12	Q	10	27	12	11	3
Women	7	12	o q	26	18	12	8	1
Capital-intensive terti	arv [′]	12	0	20	10	10	Ŭ	
Men	4	11	16	25	16	14	11	2
Women	4	13	11	26	18	16	9	3
Labour-intensive terti	ary						_	
Men	12	15	6	20	19	17	7	4
vvomen	6	10	1	25	17	21	12	2
Construction	0	10	0	24	20	10		2
Women	8	10	9	24	20	10	11	3 2E
		'	0	20	20	15	12	2
wholesaling	Jusing	,						
Men	7	8	9	25	22	13	12	4
Women	8	15	8	23	18	17	7	5
Communication. other	utilitie	s						
Men	4	8	8	22	21	25	9	3
Women	5	7	9	25	21	24	8 ^E	1 ^E
Retail trade, consume services	r							
Men	21	11	8	17	14	15	9	5
Women	26	10	7	19	14	14	7	3
Finance, insurance								
Men	4	9	11	26	21	18	8	3
Women	5	11	9	28	23	16	7	2
Real estate, rental, lea	sing							
Men	7	9	6	32	12	18	9	8
Women	12	18	9	17	15	15	10	5
Business services	-							
Men	6	11	10	25	18	21	8	3
vvomen	6	13	9	26	15	19	8	4
Education, health care	9	0		10	04	00	45	-
Women	4	9	4	19	21	23	15	5 2
	5	U	4	23	21	20	14	2
	5	12	Q	24	19	26	Л	2
Women	10	13	6	24 22	19	20	9	2 1
			3		.5		~	

Source: Workplace and Employee Survey, 1999

58% of men and 54% of women in communication and other utilities. The average age for both these industries was 41.1, comparable to health care. Within these sectors, utilities stands out as having a low median retirement age—57.8 in 1999.

Chart A: Half the employees in education and health care were 43 or older.



Retail trade and consumer services occupied the opposite end of the age spectrum; 32% of men and 36% of women were less than 30 years old, with an average age of 36.1. The large proportion of youth in retail trade was primarily the result of young employees working part time. Based on age alone, education and health care; forestry, mining, and oil and gas; and communication and other utilities appeared the most vulnerable to incipient retirement. However, when both age and industry retirement patterns were considered, education and utilities stood apart.

However, industries do not necessarily represent homogenous groups of employees. Occupational hierarchies exist within all industries, with the general pattern that people rise through the hierarchy as they gain experience. Thus managers and others near the top are typically older than those lower down and therefore more susceptible to the retirement crunch.

Management and professional occupations lead the retirement wave

Managers do, in fact, comprise the oldest, most experienced group of employees. Fully 90% of managers had 10 years or more of experience, and 55% were 40 years of age or older. In comparison, just over a third (35%) of marketing and sales employees had reached age 40 (Chart B).

A look at occupations within industries shows that managers and professionals in the more vulnerable industries will be leading the retirement wave. The average age of a manager in education was 47.6, just 8.8 years shy of the median retirement age. Health care managers were 3.7 years younger on average than those in education, and 17.9 years away from their median retirement age. The age structure for professional occupations was identical in education and health care,



Chart B: Occupations requiring more education or experience tended to have an older age structure.

Source: Workplace and Employee Survey, 1999

and much older on average than in other industries. Managers and professionals in forestry, mining, and oil and gas were also somewhat older than those in most other occupations, but not as old as those in education and health care. Production workers, who likely perform the physical labour associated with forestry, mining, and oil and gas were in the middle in terms of their age distribution (Table 2).

Table 2: Average ages by industry and occupation

44.5 ^E 42.7 41.0 F 37.6 37.3 42.0 28.2	45 [⊧] 40 41 F 36 37	Communication, other utilities Managers Professionals Technical/trades Marketing/sales Clerical/administrative	42.6 40.8 41.4 F	43 40
44.5 ^E 42.7 41.0 F 37.6 37.3 42.0 38.2	45 [⊧] 40 41 F 36 37	Managers Professionals Technical/trades Marketing/sales Clerical/administrative	42.6 40.8 41.4 F	43 40
42.7 41.0 F 37.6 37.3 42.0	40 41 F 36 37	Professionals Technical/trades Marketing/sales Clerical/administrative	40.8 41.4 F	40
41.0 F 37.6 37.3 42.0	41 F 36 37	Technical/trades Marketing/sales Clerical/administrative	41.4 F	12
F 37.6 37.3 42.0	F 36 37	Marketing/sales Clerical/administrative	F	42
37.6 37.3 42.0	36 37	Clerical/administrative		F
37.3 42.0	37		40.8	41
42.0		Production workers	37.2	40
42.0		Retail trade, consumer services		
30 0	42	Managers	38.6	38
JO.2	38	Professionals	40.0	39
42.2	43	Technical/trades	37.1	37
F	F	Marketing/sales	33.7	31
40.8	41	Clerical/administrative	38.0	38
40.0	40	Production workers	32.0	24
		Finance, insurance		
41.5	41	Managers	41.3	42
38.4	37	Professionals	38.2	39
39.1	40	Technical/trades	40.0	38
F	F	Marketing/sales	39.7	39
40.4	40	Clerical/administrative	38.9	38
37.1	38	Production workers	F	F
		Real estate, rental, leasing		
40.2	39	Managers	41.5	43
36.9	37	Professionals	39.9	39
40.4	39	Technical/trades	40.9	39
·		Marketing/sales	34.0	31
39.6	38	Clerical/administrative	39.6	40
36.6	31	Production workers	37.8	38
		Business services		
43.5	44	Managers	41.6	40
34.4	31	Professionals	38.3	37
40.2	40	Technical/trades	38.0	38
38.6	37	Marketing/sales	41.2	38
36.2	35	Clerical/administrative	40.8	39
40.7	39	Production workers	39.7	38
		Education, health care		
43.4	43	Managers	46.2	48
37.6	39	Professionals	43.1	44
39.7	39	Technical/trades	41.9	42
F	F	Marketing/sales	F	F
39.0	39	Clerical/administrative	41.6	42
36.1	34	Production workers	42.6	44
		Information and culture		
43.3	43	Managers	39.5	39
38.7	39	Professionals	40.2	40
39.6	39	Technical/trades	38.6	39
40.3	42	Marketing/sales	38.4	37
39.1	39	Clerical/administrative	38.3	40
38.2	39	Production workers	43.1	52
	42.2 F 40.8 40.0 41.5 38.4 39.1 F 40.4 37.1 40.2 36.9 40.4 37.1 40.2 36.6 43.5 34.4 40.2 38.6 36.6 43.5 34.4 37.6 36.6 43.5 34.4 37.1 40.2 38.6 36.6 43.5 34.4 37.1 40.2 38.6 36.6 43.5 34.4 37.1 40.2 38.6 36.6 43.5 36.6 40.2 38.6 36.6 40.2 38.6 36.6 40.2 38.6 36.6 40.2 38.6 36.6 40.2 38.6 36.6 40.2 38.6 36.2 40.7 40.4 37.6 36.6 36.2 40.7 40.4 37.6 36.6 36.2 40.7 40.4 37.6 36.6 36.2 40.7 40.4 37.6 36.6 36.2 40.7 40.4 37.6 36.6 36.2 40.7 40.4 37.6 36.6 36.2 40.7 40.4 37.6 36.6 36.2 40.7 40.4 37.6 36.0 40.2 38.6 39.0 36.1 43.3 38.7 39.0 38.7 38.7 38.7 39.0 38.7	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	42.243Technical/tradesFFMarketing/sales40.841Clerical/administrative40.841Clerical/administrative40.040Production workers11.541Managers38.437Professionals39.140Technical/tradesFFMarketing/sales40.440Clerical/administrative37.138Production workers86.937Professionals40.239Managers36.937Professionals40.439Technical/tradesMarketing/sales36.631Production workers8Business services43.544Managers40.739Production workers8Business services43.637Marketing/sales36.235Clerical/administrative40.739Production workers43.443Managers37.639Professionals39.739Technical/trades39.739Technical/trades43.443Managers39.139Clerical/administrative43.343Managers39.039Clerical/administrative36.134Production workers43.343Managers39.639Technical/trades39.739Professionals <td< td=""><td>42.2 43 Technical/trades 37.1 F F Marketing/sales 33.7 40.8 41 Clerical/administrative 38.0 40.0 40 Production workers 32.0 41.5 41 Managers 41.3 38.4 37 Professionals 38.2 39.1 40 Technical/trades 40.0 F F Marketing/sales 39.7 40.4 40 Clerical/administrative 38.9 37.1 38 Production workers F Real estate, rental, leasing 40.2 39 Managers 41.5 40.2 39 Managers 34.0 39.9 40.4 39 Technical/trades 40.9 39.6 . Marketing/sales 34.0 39.6 38 Clerical/administrative 39.6 36.6 31 Production workers 37.8 Business services 34.0 34.0 36.3 41.2 43 Managers 41.2</td></td<>	42.2 43 Technical/trades 37.1 F F Marketing/sales 33.7 40.8 41 Clerical/administrative 38.0 40.0 40 Production workers 32.0 41.5 41 Managers 41.3 38.4 37 Professionals 38.2 39.1 40 Technical/trades 40.0 F F Marketing/sales 39.7 40.4 40 Clerical/administrative 38.9 37.1 38 Production workers F Real estate, rental, leasing 40.2 39 Managers 41.5 40.2 39 Managers 34.0 39.9 40.4 39 Technical/trades 40.9 39.6 . Marketing/sales 34.0 39.6 38 Clerical/administrative 39.6 36.6 31 Production workers 37.8 Business services 34.0 34.0 36.3 41.2 43 Managers 41.2

Source: Workplace and Employee Survey, 1999

Education and experience are clearly not the only explanations for the age structure of managers and professionals. Managers and professionals in other industries with high educational requirements were at least 4.6 and 4.8 years younger than those in education and health care. The story was somewhat different in communication and other utilities, which lacked the stark contrast in ages between the different occupations. In fact, only three years separated the median ages of all occupations except marketing and sales.

The younger industries showed considerably more variation in age by occupation. The clearest example was retail trade and consumer services, where the median age of managers was 38 compared with 24 for production workers. Again, this is likely due to the large number of part-time employees and lower education requirements in the latter occupational group.

In general, managerial occupations appeared most vulnerable to baby boomer retirement since the average age of managers was under 40 in only 2 of the 14 sectors surveyed. However, several other industries will also experience considerable losses—especially in professional occupations, although technical/trades and clerical/administrative occupations will also be affected. Only marketing/sales positions and nonskilled production workers appeared to have relatively youthful age distributions.

To sum up, education and health care; forestry, mining, and oil and gas; and communications and other utilities sectors appear vulnerable because of their older age structures—particularly education and health care. While communications and other utilities had an older age distribution across all occupations, the distribution was more concentrated in managerial and professional occupations in education and health care; and forestry, mining, and oil and gas. This is especially important in education and health care, which had a higher proportion of managers and professionals. Secondly, it is not surprising that managers and professionals had the oldest age structures given the increased experience required of managers and the high level of education expected from professionals.

Current retirement patterns

While the crest of the retirement wave is at least 8 to 10 years away—even in the most vulnerable industries— it may be instructive to look at the current situation. How closely do industrial patterns of retirements in 1999 (Chart C) align to the demographic factors noted above?

Chart C: Retirement rates varied considerably by industry.



Source: Workplace and Employee Survey, 1999

Highest retirement rate in education sector

Education stands out as the industry with the highest rate of retirement in 1999 and the clearest indications of a rising retirement trend in the near future. Education had a estimated retirement rate of 121 per 10,000 employees in 1999—more than double the all-industry average and 42% higher than the next highest industry. Furthermore, demographic analyses indicate that approximately half the employees in this industry will retire within 12 years—half the managers within 9 years. Clearly, Canada's educational systems are fertile ground for human resource planning and development.

Primary product manufacturing had the next highest retirement rate in 1999, at 85 per 10,000 employees. This industry also had an older-than-average age distribution, but manufacturing industries in general had retirement ages close to the all-industry median. So replacement pressures are not looming as ominously as in the education sector.

Other industries with older workforces had relatively low retirement rates in 1999. Business services had the lowest rate—good news considering its older age structure and high educational requirements. While health care was also among the sectors with older workforces, its retirement rate of 56 per 10,000 in 1999 barely exceeded the all-industry average of 54.

On the flip side, the higher-than-average retirement rate in retail trade and consumer services was somewhat unexpected given its very youthful age structure. However, managers and professionals in this sector did not differ greatly in age from those in many other industries.

Vacancy rates

Workforce demographics—age, education and experience—are attributes of the labour supply. The other major force acting on labour markets—the human resource requirements of employers—is labour demand. Unmet labour demand is measured by vacancies—jobs that remain unfilled despite active recruitment. It is possible that labour supply constrictions may be altered by trends such as changing demand for different types of products and services, or the substitution of capital (machinery and equipment) for labour.

Although it is beyond the scope of this paper to forecast sectoral labour demand, the Workplace and Employee Survey does collect information on current vacancies. Vacancy rates by industry may help to determine whether aging is already affecting some sectors. Note that these vacancies were measured in 1999 and were subject to the cyclical and demographic conditions of that year: growing GDP and employment.

Highest vacancy rate in retail trade and consumer services

Vacancies per 10,000 employees were used to examine the degree to which various industries were having difficulty finding employees in 1999 (Chart D). Retail trade and consumer services had the highest vacancy rate at 381 vacancies per 10,000 employees; transportation, warehousing, and wholesale trade had 324. Business services, with an age distribution toward the upper end of the average and high educational requirements, also had a relatively high vacancy rate (278). Primary product manufacturing had one of the lowest vacancy rates, just 116. The news was mixed for education and health care; education had a vacancy rate of just 137, compared with 214 for health care. Forestry, mining, and oil and gas had just 87 vacancies per 10,000 employees, again likely because of the decreased employment in this sector.







In general, vacancies were relatively low in those sectors identified with some demographic vulnerabilities. If anything, vacancies tended to be higher in industries with younger workforces and lower wages. Thus the job shopping and sorting associated with younger workers currently overshadows the still early effects of boomer retirement, at least in terms of recently reported vacancies.

Conclusion

Although the retirement effects of an aging population will eventually be felt in all sectors, some industries will feel the pinch earlier than others. The education sector stands out with a high average workforce age, particularly for managers, and a low median retirement age. Rough estimates indicate that about half the education workforce is likely to retire within 12 years— 9 years for managers. Furthermore, the retirement rate in the education sector was already more than double the economy-wide average in 1999. On the positive side, the vacancy rate in education was relatively low in 1999. Health care also had an older workforce, but the median retirement age was about five years later than in education. Health care's current retirement and vacancy rates were also near the middle of the pack. However, several factors make a case for vigilance in this industry. First, an aging population is likely to increase the demand for health-care services, thereby putting pressure for growth on the workforce as its retirement rate increases. Second, it takes a long time to educate health professionals, increasing the imperative for long-range planning. Finally, health care consistently tops the list of policy issues most important to Canadians, so whatever measures are taken will be closely scrutinized.

Among other industries, only the utilities sector had an older than average workforce and median retirement age less than 60 in 1999. For most private-sector industries, turnover for reasons other than retirement will command more attention in the immediate future. Typically, turnover tends to be highest in sectors that pay relatively low wages and employ a high proportion of younger workers, particularly part-time workers. However, even some high-wage, high-skill industries (notably finance and insurance, and business services) had relatively high vacancy rates in 1999. Although these vacancy rates may have been caused primarily by strong economic growth in that year, they may also hint at a growing relative demand for more highly skilled workers.

One demographic factor common to nearly all industries was the older age of the managerial ranks. This is to be expected, since it generally requires some time to acquire the experience and skills required to manage. However, this demographic pattern highlights the fundamental necessity of succession planning within most organizations. In the coming years, management succession planning will be complicated—at various times in various industries—by retirements in mid-level jobs, which normally provide the recruiting pools for management. And, since managerial skills (and indeed many other skills) are transferable across sectors, it is not realistic to expect retirement pressures to be isolated within industry stovepipes. Replacement demands in any industry will likely have a ripple effect throughout the economy.

Perspectives

References

Bolch, Matt. 2001. "The coming crunch." Training 38, no. 4: 54-59.

Bovbjerg, Barbara D. 2001. Older workers: Demographic trends pose challenges for employers and workers. GAO Reports, GAO-02-85. Washington: United States General Accounting Office.

Foot, David K. 1998. Boom, bust and echo 2000: Profiting from the demographic shift in the new millennium. Toronto: Macfarlane, Walter and Ross.

Kotlikoff, Laurence J., Kent Smetters, and Jan Walliser. 2001. *Finding a way out of America's demographic dilemma*. National Bureau of Economic Research (NBER), Working paper no. 8258. Cambridge Mass.: NBER.

McEvoy, Glenn M., and Mary Jo Blahna. 2001. "Engagement or disengagement? Older workers and the looming labor shortage." *Business Horizons* 44, no. 5 (Sept-Oct): 46-52.

Pyper, Wendy and Philip Giles. 2002. "Approaching retirement." *Perspectives on Labour and Income* (Statistics Canada, Catalogue no. 75-001-XIE) 3, no. 9. September 2002 online edition.

Regets, Mark C. 2001. Research and policy issues in highskilled international migration: A perspective with data from the United States. Institute for the Study of Labor (IZA), Discussion paper no. 366. Bonn, Germany: IZA.

Quality of jobs added in 2002

Martin Tabi and Stéphanie Langlois

HE LABOUR MARKET IN CANADA improved considerably in 2002, with employment jumping 560,000 or 3.7% from December 2001 to December 2002. After the slowdown in both economic growth and employment in 2001, almost no one anticipated such a strong performance (Bowlby 2003).

The trend in employment contrasted between the United States and Canada. Employment in the U.S. remained almost unchanged (-0.1%), with the economy growing at a weaker pace than in Canada. The sudden reversal of trend from 2001, robust growth of part-time employment, and the stagnation of the American labour market in 2002 are all reasons to question the quality of the jobs added in 2002.

Job quality can be evaluated in several ways. On a personal level, criteria could include wages, number of hours worked, shift work, place of work, commuting distance, work relationships, and so forth. Each individual may assign a different importance to each factor.

For the economy as a whole, what defines a good job refers more to concepts of productivity. Jobs with higher wages, more hours of paid work, and stability will make a greater contribution to economic growth. This approach has been adopted for this study.

While definite conclusions on the quality of job growth in 2002 are not possible, some indications of the nature of the employment gain can be gleaned from the Labour Force Survey.

Hourly wages

From the perspective of economic growth and productivity, a direct measure of the quality of a job is its wage. Average hourly wages continued to rise in 2002, reaching \$17.66. The 2.8% increase between 2001 and 2002 was slightly less than the increases recorded in the previous two years (3.1% and 3.2% respectively).

By way of comparison, the annual average all-items consumer price index (CPI) rose 2.2% in 2002, somewhat less than wages (Chart A). On average, consumers paid 2.6% more for goods and services in 2001 than they did in 2000. In 2000, the average increase was 2.7%.



Chart A: Hourly earnings increased more than consumer prices.

Through a variety of measures, the distribution of wages remained roughly unchanged in 2002. One broad indicator of wage distribution is the share of employees earning less than the average hourly wage, about 58% each year since 1997.

The rise in real wages and the creation of relatively few minimum wage jobs in 2002 are positive indications of the quality of job growth. In 2002, the total

The authors are with the Labour Statistics Division. Martin Tabi can be reached at (613) 951-5269, Stéphanie Langlois at (613) 951-3180; or both at perspectives@statcan.ca.

Chart B: For the third straight year, less than 5% of employees earned minimum wage or less.



number of employees increased more rapidly (3.6%) than the number working at minimum wage (0.5%). Although seven provinces increased their minimum wage in 2002, the proportion of employees paid at this rate was down slightly from the previous year (-0.1%). At 4.7%, the proportion of employees working at minimum wage remained under the 5% mark for a third consecutive year (Chart B).

Strong growth of part-time work

Part-time employment grew by 7.7% (213,000) between December 2001 and December 2002, the largest annual increase since 1981 (Chart C). Because

Chart C: After several years of little growth, part-time employment jumped in 2002.





the increase in part-time employment was almost three times the increase in full-time employment (2.8%), the proportion of part-time employment rose 0.7 percentage points, reaching 19.0%. After reaching 19.8% in July 1993, the highest proportion ever recorded, the share of part-time jobs saw a downward trend until late 2001. In terms of raw numbers, full-time employment increased by a healthy 347,000.

Youths (age 15 to 24) obtained 27% of the part-time gains, almost twice their share of the labour force (16%). The increase of 57,000 part-time jobs for youths is important; part-time employment is often a way for young people to break into the labour market, helping them gain essential work experience.

The increase in the proportion of part-time employees could indicate a less healthy labour market. Part-time work is often seen as a form of underemployment, especially if individuals are working part time as a result of less favourable business conditions.¹

Despite the recent upward trend in part-time employment, the share of people working part time because of business conditions remained practically unchanged in 2002—about 27%, a drop of 0.6 percentage points from the 1997 to 2001 average.

Hourly wage lower for part-time

Wages for both part- and full-time workers increased in 2002 (Table 1). However, hourly pay grew twice as rapidly for full-timers. At 3.1%, the wage gain among full-time employees was greater than the increase in the consumer price index; but for part-timers, the gain was well below (1.4%).

Table 1: Average hourly earnings

	Full-time	Change	Part-time	Change
	\$	%	\$	%
1997	16.52		11.37	
1998	16.72	1.2	11.35	-0.2
1999	17.16	2.6	11.44	0.8
2000	17.69	3.1	11.72	2.4
2001	18.25	3.2	12.23	4.4
2002	18.82	3.1	12.40	1.4
Source: La	bour Force Surve	v	12.40	1

Number of temporary jobs up substantially

Job permanency is also often viewed as a quality indicator. Permanent jobs, in addition to being more stable, tend on average to be better-paying than temporary jobs.²

As a result of slightly stronger growth in temporary jobs (4.4% vs. 3.1%), the proportion of temporary jobs continued to rise in 2002, from 12.8% to 13.0% (Table 2). In fact, the proportion has increased every

Table 2:	Employees in permanent and
	temporary jobs

	Permanent	Change	Temporary	Change			
Fourth quarter	'000	%	'000	%			
1997	10,236.2		1,289.6				
1998	10,467.5	2.3	1,348.3	4.5			
1999	10,811.8	3.3	1,401.3	3.9			
2000	11,073.6	2.4	1,582.8	13.0			
2001	11,257.9	1.7	1,528.2	-3.4			
2002	11,603.3	3.1	1,594.9	4.4			
Source: Labour Force Survey, not seasonally adjusted							

year since 1997. In the last six years, temporary employment has jumped 30.5% (396,000), while permanent jobs have increased 12.3% (1.2 million).

Although the percentage increase in temporary jobs was greater than in permanent ones between the fourth quarters of 2001 and 2002, the numerical increase was far less—67,000 compared with 345,000 (Chart D).

Chart D: The proportion of temporary jobs continued to rise in 2002.



Since 1997, temporary employment has increased at a faster pace than permanent. However, at the same time, wages for permanent jobs have risen slightly more rapidly (Chart E). In 2002, the average hourly wage increased 2.8% for people in permanent and temporary jobs.

Chart E: Hourly earnings rose more for permanent jobs.



Self-employment once again on the rise

Most of the indicators presented thus far have focused exclusively on employees, who are more numerous than self-employed workers. (Self-employment accounted for 15.2% of total employment in December 2002.) However, self-employment also increased in 2002.

After stalling for just over a year and a half, self-employment grew significantly in 2002 (4.2%, or 95,000, between the fourth quarters of 2001 and 2002) (Table 3). Does such growth signify bad, unstable or less well-paid employment? Since self-employed workers are fairly heterogeneous, the question is difficult to answer. Who joined the ranks of this group in the past year? Did these people become self-employed by default, awaiting a better opportunity?

The professional, scientific and technical services sector has the largest proportion of self-employed workers, and this sector registered the largest increase in self-employment (25,000) between the fourth quarters of 2001 and 2002. Possibly some who became selfemployed in 2002 had been salaried employees who

Table 3: Self-employment by industry

	Fourth	quarter		Shara in
	2001	2002	Change	2002*
	'(000	%	%
Total	2,287.5	2,382.7	4.2	100.0
Professional, scientific and technical				
services	319.3	344.7	8.0	14.0
Trade	313.6	287.0	-8.5	12.8
Construction	267.9	273.9	2.2	11.8
Other services	217.8	227.3	4.4	9.9
Agriculture	200.5	222.4	10.9	9.0
Health care and social assistance	188.6	211.1	11.9	8.3
Management, and administrative				
and support services	136.2	151.9	11.5	6.5
Finance, insurance, real estate and leasing	124.8	132.1	5.8	5.6
Transportation and warehousing	126.3	130.4	3.2	5.5
Information, culture and recreation	99.5	105.7	6.2	4.4
Accommodation and food services	98.5	103.7	5.3	4.1
Manufacturing	97.2	95.5	-1.7	4.0
Educational services	52.1	48.8	-6.3	2.0
Forestry, fishing, mining, and oil and gas				
extraction	45.3	47.4	4.6	1.9
Utilities				
Public administration				

Source: Labour Force Survey, not seasonally adjusted

* Annual average.

decided to work for themselves after the collapse of the high-tech sector (Bowlby and Langlois 2002). Within professional, scientific and technical services, the largest increase was in computer systems design and related services.

Self-employment also increased in health care and social assistance, with a gain of 23,000 concentrated in two sub-sectors: ambulatory health-care services and social assistance. In ambulatory services, the advance was mainly in professional occupations such as physicians, dentists, and pharmacists. The increase in social services was reflected in occupations such as teacher assistants, early childhood educators, and babysitters.

Who gained and lost the most?

Another way to profile employment growth in 2002 is to examine the occupations and industries in which the largest number of job gains and losses³ occurred between the fourth quarters of 2001 and 2002. Both part- and full-time jobs were considered. The average weekly wage of each group in 2002 was compared with the average compensation of employees in general (\$650 per week) to help determine job quality.

The ten largest gainers

Most of the ten largest gainers were full-time jobs with higher than average weekly wages (Table 4). But, retail salespersons and sales clerks working part time in the trade sector showed the largest gain in employment, an increase of 29,000 (12%) between the fourth

Table 4: Top ten job gainers in 2002

	Fourth-quarter change		Fourth-quarter change		Weekly earnings	
	number	%	\$			
Part-time retail salespersons and sales clerks in trade	28,600	11.7	149			
Full-time registered nurses in health care and social assistance	21,300	13.7	936			
Full-time elementary school and kindergarten teachers in educational services	20,200	15.4	946			
in trade	18,300	6.9	469			
Part-time nurses aides and orderlies in health care and social assistance	12,600	24.7	271			
and mechanical repairers in trade	11,500	27.5	706			
in accommodation and food services	11.200	31.9	652			
Full-time truck drivers in manufacturing	11,200	61.2	738			
labourers in construction	11,000	16.8	638			
professional, scientific and technical services	10,300	13.7	1,133			

quarters of 2001 and 2002. However, average compensation per week for this type of job was \$149 in 2002—\$501 less than for employees in general.

Registered nurses working full time in health care and social assistance ranked second with a rise of 21,000 (14%). In 2002, they earned \$936 per week, or \$286 more than employees in general. The healthcare and social-assistance industry was one of the fastest growing industries in 2002.

Sizeable increases were also evident for other full-time jobs that paid above average, such as elementary school and kindergarten teachers working in educational services, and computer systems analysts working in professional, scientific and technical services.

The ten largest losers

The ten largest losers were almost all full-time, but most had below average weekly wages (Table 5). Shippers and receivers working full time in trade, and cooks working full time in accommodation and food services experienced the largest job losses, 19,000 (-32%) and 15,000 (-15%) respectively. Shippers and receivers averaged \$504 per week, while cooks at \$375 averaged even less.

Some well-paid, full-time jobs were lost between the fourth quarters of 2001 and 2002, notably those held by computer systems analysts in the information, culture and recreation industry. In 2002, these employees received more than \$1,000 per week, much higher than the overall average.

Overall, the number of computer systems analysts grew by 5,000 between the fourth quarters of 2001 and 2002. The number of self-employed workers in this occupation increased substantially, supplementing the increase in employees in professional, scientific and technical services.

Гab	le	5:	Тор	ten	job	losers	in	2002	
-----	----	----	-----	-----	-----	--------	----	------	--

	Fourth-q chan	uarter ge	Weekly earnings	
	number	%	\$	
Full-time shippers and receivers in trade	-18,700	-31.6	504	
food services	-15,100	-15.2	375	
Full-time early childhood educators and assistants in health care and social	,			
assistance	-13,300	-18.4	460	
Full-time secretaries (except legal and medical) in public administration	-12,700	-46.5	610	
Full-time motor vehicle assemblers,		<u> </u>	o / =	
Inspectors and testers in manufacturing	-11,800	-25.5	945	
accommodation and food services	-11,100	-13.9	372	
trade (non-technical) in trade	-10.900	-14.8	751	
Part-time elementary/secondary teachers n.e.c. Full-time computer systems analysts in	-10,500	-26.2	456	
information, culture and recreation	-10,400	-50.9	1,032	
Full-time cashiers in trade	-9,400	-11.0	335	

Source: Labour Force Survey, not seasonally adjusted

Summary

While the greater proportionate increase in part-time and temporary jobs casts a shadow on the nature of the strong job growth in 2002, the gains were not made at the expense of full-time or permanent jobs. Increases for the latter, while more modest in proportion, were larger in absolute terms, indicating that many good jobs were added in 2002. Although it is hard to determine how many added jobs were good and how many were not, it would be difficult to argue that 2002 was a bad year, considering the overall growth in wages and the sizeable increase in employment spread among different types of jobs.

Perspectives

Notes

1 People working part time because of 'business conditions' would prefer to work 30 hours or more per week; however, because of these conditions, they were not able to find full-time work or had their hours reduced. Conditions include not enough work, a drop in orders, retooling, and cutback in hours to save costs.

19	Average 997 to 2002
	%
Own illness or disability	2.3
Caring for own children	10.8
Other personal or family	
reponsibilities	4.5
Going to school	28.7
Personal preference	24.6
Other voluntary reasons	1.5
Business conditions, did not look	
for full-time work in the last month	9.1
Did not look for, could not find	
full-time work in the last month	9.6
Business conditions, looked for full-time	
work in the last month	2.8
Looked for but could not find full-time w	ork 5.9

Source: Labour Force Survey

2 Job permanency is based on the intentions of the employer and characteristics of the job, rather than the intentions of the employee. If a job that was formerly considered permanent is ending in the near future because of downsizing or closure, it is still regarded as permanent.

A **permanent** job is one that is expected to last as long as the employee wants it, given that business conditions permit. There is no predetermined termination date. A **temporary** job has a predetermined end date, or will end as soon as a specified project is completed. Temporary jobs are sub-classified into four groups: seasonal; temporary, term or contract, including work done through a temporary help agency; casual job; and other temporary work.

3 Self-employed workers are excluded.

References

Bowlby, Geoff. 2003. "2002—a good year in the labour market." *Perspectives on Labour and Income* (Statistics Canada catalogue 75-001-XIE) 4 no. 1. January 2003 online edition.

Bowlby, Geoff, and Stéphanie Langlois. 2002. "High-tech boom and bust." *Perspectives on Labour and Income* (Statistics Canada catalogue 75-001-XIE) 3 no. 4. April 2002 online edition.