

# 2006 Graduate Employment Survey

The Canadian Society for Medical Laboratory Science (CSMLS) has been tracking employment trends in the medical laboratory workforce since 1987. One of the tools that CSMLS uses to gauge the health of the job market is the Graduate Employment Survey. Each year, CSMLS surveys graduates of accredited medical laboratory training programs across Canada to ascertain their employment status one year after graduation. The results of the survey provide a 'snap shot' of the job market for medical laboratory technologists, and serve to identify trends in the medical laboratory workforce and in the larger health care environment.

In October of 2006, surveys were sent to 595 people who completed CSMLS certification, including

graduates of accredited education programs in British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec, New Brunswick and Newfoundland in 2005, as well as those who established eligibility through the Prior Learning Assessment process. Two hundred and thirty-two people responded for an overall response rate of 39 per cent.

The respondents included:

- 208 general medical laboratory technologists
- 11 clinical genetics technologists
- 13 diagnostic cytologists

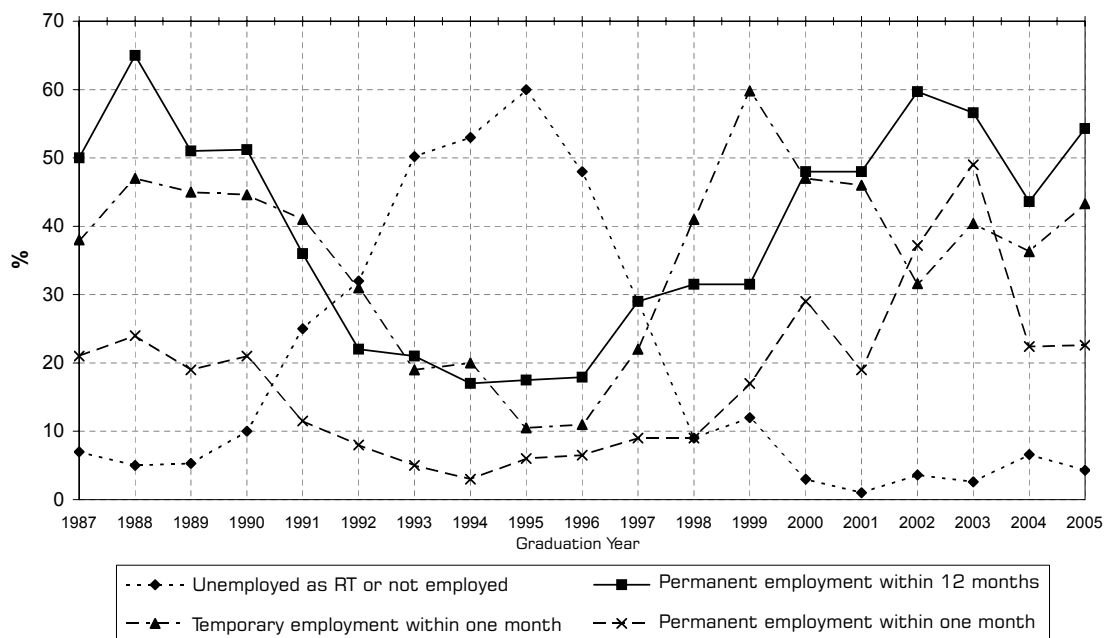
Respondents were asked to indicate their employment status 12 months after graduation. They were also asked to list their academic creden-

tials upon entering and exiting their training programs.

## The National Picture - Where they work

Hospitals continue to be the predominant employers for new graduates of general medical laboratory programs. The vast majority (74.5 %) of respondents reported finding work in hospitals. The remaining 25.5 per cent work in private laboratories (8.7%), public health labs (5.3%) and other organizations. 45.2 % of the respondents work in hematology, 41.8% in clinical chemistry, and 27.4% in transfusion science, and 22.6% work in clinical microbiology—many work in two or more departments of the laboratory. Hospitals are also the principal employers for clinical genetics technologists (63.6%), followed by

NEW GRADUATE SURVEY  
1987-2005



private laboratories (9.1%). Similarly, 61.5 % of diagnostic cytology technologists reported working in hospitals, with the balance (30.8 %) reporting employment in private laboratories.

#### Employment after one year

Employment uptake of new graduates into the medical laboratory workforce in Canada has remained consistently high since 1998. However, since 2003 the surveys have shown a slight, gradual decrease in employment uptake. It would appear that is now changing, with the 2006 survey showing a return to 95.6 % (2003 – 95.9 %, 2004 – 92.8 %, 2005 – 90.4 %)

Uptake in the specialty disciplines of clinical genetics and diagnostic cytology was 100 per cent and 92.3 per cent respectively. The uptake for diagnostic cytology graduates appears to have improved over the previous deteriorating trend, a

possible reflection of reduced program enrolment and numbers of graduates in the discipline across Canada.

#### Provincial employment after one year

Employment uptake was fairly consistent throughout the country. All of the new graduates in British Columbia, Alberta, Saskatchewan, Manitoba, New Brunswick and Newfoundland were employed as medical laboratory technologists within a year. Graduates in Quebec and Ontario followed closely behind at 93.8 per cent and 91.5 per cent respectively. This is significantly improved over previous surveys.

#### Full time vs. part time and casual

The lack of full-time, permanent employment has been a growing concern in the health care community for more than a decade. Since the 1990s, entry-level health care

professionals such as nurses and medical laboratory technologists have been forced to accept part-time, casual or temporary positions. Full-time employment rebounded from the previous negative trends, with a jump to 40.5 per cent of national survey respondents reporting full-time employment. This is an 8.9 per cent increase over the 2005 survey results, even rising above the 2004 survey in which 40.1 per cent found full-time employment.

The provincial data reflects a changing environment as well. Full-time employment was above the national average in most jurisdictions (see figure 3), with the exception of Quebec where only 13.8 per cent of respondents reported acquiring full-time positions. Quebec also reported the highest number of respondents with casual type employment at 29.2%; 84.6 % of Quebec respondents reported that they were seeking full-time employment.

**Figure 2 National Job Category Data**  
**Employment Status - National Percentage Working as MLTs after 12 months – 95.6%**

Type of Employment	2003 %	2004 %	2005 %	2006 %
Permanent Full time	49.0	40.1	31.5	40.4
Temporary Full Time	11.7	13.2	13.1	12.5
Permanent Part Time	15.8	22.0	20.2	18.3
Temporary Part Time	6.1	11.9	10.8	9.6
Casual	13.3	11.5	21.1	16.3

**Figure 3 Provincial Job Category Data**

Province	Permanent Full Time	Temporary Full Time	Permanent Part Time	Temporary Part Time	Casual
NF	77.8				22.2
NB	50		20	20	10
QC	13.8	15.4	18.5	20	29.2
ON	50.8	16.9	18.6	3.4	1.7
MB	53.8		30.8		15.4
SK	66.7		33.3		
AB	52	16	16	8	8
BC	40.9	9.1	18.2	4.5	27.3

### Out migration

CSMLS certification is accepted as the entry-level credential for medical laboratory technologists across the country. This is a significant benefit to new graduates who wish to relocate to another province. Nationally, 12.5 per cent of respondents reported moving after graduation, 5.3 per cent to seek work, and 7.2 per cent for personal reasons.

Newfoundland appears to have the largest out migration, with 66.7 of grads reporting leaving the province to seek work. Newfoundland grads moved to the west, ending up in BC, Alberta and Saskatchewan.

The threat of a massive brain drain of new graduates to the United States does not appear to be an issue, at least on a national level. Of those respondents who left their home province, only two new grads from Ontario moved to the United States to obtain employment (3.4%). The increase in the bureau-

cracy to acquire a legal work permit in the USA will likely continue as a disincentive for Canadians to consider migrating to the USA. The rest often moved to neighbouring provinces, but there is a notable out migration to the western provinces.

### Education

This is the fourth time that the Graduate Employment Survey has included questions about additional educational credentials before and after completion of the accredited training program. Survey results indicate that a significant proportion of students entering medical laboratory technology education programs already possess baccalaureate degrees. In 2006, 30.8 per cent of survey per cent of survey respondents reported holding a degree before entering an accredited education program (2005 – 28.9 %). An additional 24 per cent had completed some university courses. An examination of the provincial data reveals significant regional variation

in the numbers of graduates with university degrees, from a high of 63.6 per cent in British Columbia, and 50.8 per cent in Ontario, to a low of 0 per cent in Saskatchewan.

### Conclusions

The results of the Graduate Employment Survey indicate a generally positive employment outlook for graduates of medical laboratory technology training programs. There are, however, some areas of concern:

1) The uptake of general MLTs into the workforce into full-time employment is still low, despite the improvements shown in the recent survey.

2) There appears to be a strong out migration to the western provinces. Several Atlantic provinces have seen higher wages in the west attract new grads far beyond traditional provincial migration. This makes planning for HHR very difficult for the Atlantic provinces.

3) The uptake of diagnostic cytology technologists into the workforce is varying, however this current report suggests an improvement over recent reports. Anecdotal reports still suggest there are HHR planning issues for cytotechnology, and training programs should work closely with their local workforce to ascertain true intake needs.

4) Quebec grads still have challenges finding full-time employment, with the highest casual lab workforce in the country. High casual employment rates are also a concern in Newfoundland and British Columbia.

Shortages in the field of medical laboratory science are well documented and have been cited in several reports on health human resources since 1999. It would appear, however, that the exodus of

baby boomers from the workforce is occurring at a slower rate than anticipated. This may be due to a variety of factors ranging from financial pressures to personal choice. This presents a serious concern for the medical laboratory profession. Governments have a tendency to respond to crises and may be tempted to delay taking action on human resource issues, such as the shortage of clinical placements. Closely tied to this is the lack of full-time employment opportunities for new graduates. Hiring new graduates into part-time and casual positions may meet employers' needs today, but in the long term, the lack of job stability and security will serve as a disincentive to enter the medical laboratory profession. Short-term fixes to fluctuations in the health human resource workforce, while politically expedient, are "penny wise and pound foolish."

Health human resource planning requires long-term thinking, taking into consideration a number of factors such as population demographics and the impact of information technology. The minimum dataset for the medical laboratory science workforce, which is currently in the final stages of development by the Canadian Institute for Health Information (CIHI), will provide a much needed more accurate foundation for long-term planning of human resource needs for the medical laboratory science profession in Canada.

CSMLS has increased its capacity and commitment to research, and is working with governments and other key stakeholders to address the ongoing concerns for HHR planning in our profession. We will continue to monitor this situation closely. ■

**Figure 4. Provincial education data**

Province	Degree before MLT Program % responses			No degree but completed some university courses % responses		
	2004	2005	2006	2004	2005	2006
NF	11.1	20.0	0	66.7	100	44.4
NB	54.5	30.8	40	36.4	50.0	40.0
QC	6.5	4.5	9.2	6.5	17.2	6.2
ON	45.8	56.4	50.8	20.8	13.5	13.6
MB	12.5	71.4	23.1	12.5	50.0	30.8
SK	25.0	0	0	25.0	60.0	66.7
AB	50.0	16.7	28	25.0	42.9	12.0
BC	44.4	39.1	63.6	27.8	47.6	27.3