

CSMLS New Graduate Employment Survey - 2005

The Canadian Society for Medical Laboratory Science (CSMLS) has been tracking employment trends in the medical laboratory workforce for several years. 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 “snapshot” 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 2005, surveys were sent to 723 people who graduated from accredited education programs in British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec, New Brunswick and

Newfoundland in 2004. Two hundred and fifty-five people responded for an overall response rate of 35 per cent.

The respondents included:

- 221 general medical laboratory technologists
- 12 clinical genetics technologists
- 22 diagnostic cytologists

Respondents were asked to indicate their employment status 12 months after graduation. They were also asked to list their academic credentials upon entering and exiting their training programs.

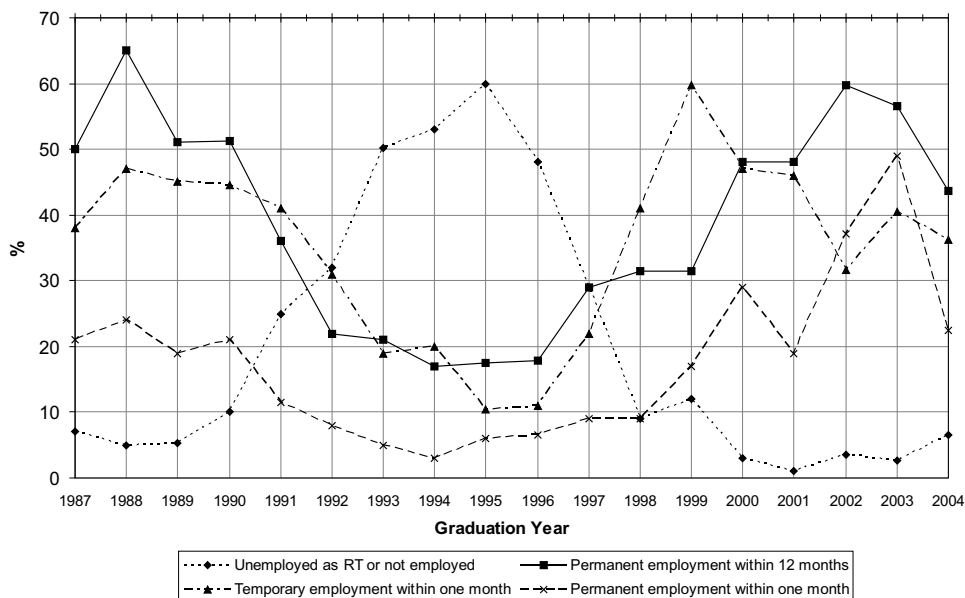
The National Picture - Where they work

Hospitals continue to be the predominant employers for new graduates of general medical laboratory programs.

The vast majority (79.3 %) of respondents reported finding work in hospitals. The remaining 20.7 per cent work in private laboratories (10.3 %), public health labs (2.3%) and other organizations (4.7 %). Nearly a third (30.7%) of the respondents work in a single department. Ten per cent work in clinical microbiology—the balance work in two or more departments of the laboratory.

Hospitals are also the principal employers for clinical genetics technologists (83.3%), followed by private laboratories (8.35%) and public health laboratories (8.3%). By comparison, only half (50%) of diagnostic cytology technologists work in hospitals. The remaining 50 per cent work in private laboratories (27.8%), public health laboratories (5.6%) and government laboratories (5.6%).

NEW GRADUATE SURVEY
1987 - 2004



Employment after one year

Employment uptake of new graduates into the medical laboratory workforce in Canada has remained consistently high since 1998. However, the last three surveys reveal a slight, gradual decrease in employment uptake. The 2005 survey found that 90.4 per cent of general medical laboratory technology graduates were employed as medical laboratory technologists within one year. Uptake in the 2003 survey was 95.9 per cent and fell to 92.8 per cent in the 2004 survey.

Uptake in the specialty disciplines of clinical genetics and diagnostic cytology was 100 per cent and 72.7 per cent respectively. The uptake for diagnostic cytology graduates in the 2004 survey was 95 per cent and 100 per cent in 2003. It appears there may be a trend toward a lower rate of uptake into the workforce for this discipline.

Provincial employment after one year

Employment uptake was fairly consistent throughout the country. All of the new graduates in Saskatchewan and Manitoba were employed as medical laboratory technologists within a year. Graduates in Quebec and Newfoundland followed closely behind at 94.4 per cent and 90.9 per cent respectively. The employment picture was not as bright in the rest of the country. The lowest rates of employment uptake were experienced by graduates in New Brunswick (84.6%) and Ontario (85.5%), followed closely by British Columbia (88.9 %) and Alberta (89.5%).

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 fell for the second consecutive year. Nationally, only 31.5 per cent of survey respondents secured full-time employment –

an 8.6 per cent decrease over the 2004 survey in which 40.1 per cent found full-time employment.

The provincial data is equally discouraging. Only Saskatchewan (33%), Ontario (54.1%) and Manitoba (100 %) had rates of permanent full-time employment that exceeded the national average. Full-time employment decreased in every other province with the lowest rates of full-time permanent employment in British Columbia (15.4 %) Quebec (14.5 %) and Newfoundland (18.2 %).

Outmigration

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. New Brunswick had the highest level of outmigration at 33.3 per cent. Of those who left the province, 60 per cent cited personal reasons and 40 per cent cited a lack of employment opportunities. This makes sense, as New Brunswick had the lowest rate of employment uptake in the country. Alberta had the second highest outmigration rate at 26.3 per cent—83.3

Figure 2 - National job category data

Employment Status - National

Percentage working as MLTs after 12 months – 92.8%

Employment Status at time of survey:

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

Figure 3 - Provincial job category data

Province	Permanent Full Time	Temporary Full Time	Permanent Part Time	Temporary Part Time	Casual
NF	18.2	27.3	27.3	9.1	9.2
NB	25	8.3	50	–	16.7
QC	14.5	13.0	11.6	18.8	31.9
ON	54.1	6.3	23	6.6	6.6
MB	100	–	–	–	–
SK	33	–	–	16.7	50
AB	25	18.8	43.8	–	12.5
BC	15.4	15.4	19.2	15.4	34.6

per cent left for personal reasons, 40 per cent left due to lack of employment. British Columbia, Manitoba, Saskatchewan and Quebec had the lowest rates of outmigration at zero per cent.

The threat of a massive “brain drain” of new graduates to the United States appears to be overblown, at least on a national level. Of those respondents who left their home province, only those in New Brunswick moved to the United States to obtain employment (8.3%). The rest moved to neighbouring 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 2005, 28.9 per cent of survey respondents reported holding a degree before entering an accredited education program. An additional 31 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 71.4 per cent in Manitoba 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, three troubling issues:

- 1) The uptake of general MLTs into the workforce is declining. The decrease has been gradual and modest, but it has been consistent since the 2003 survey.
- 2) Full-time employment has dropped significantly since 2003, when 49 per cent of new graduates succeeded in finding full-time employment. After the 2004 survey, in which only 40.1 per cent of respondents reported finding full-time employment, a question was added to the 2005 survey to ascertain what classification of employment was being sought. The results are disturbing. While 86.1% of respondents indicated that they were seeking full-time employment, only 31.5% succeeded in doing so.

3) The uptake of diagnostic cytology technologists into the workforce is declining rapidly. In fact, employment uptake has dropped by 27.5 per cent since the 2003 survey.

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 issue 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. Hopefully, the minimum data set for the medical laboratory science workforce, which is currently under development by the Canadian Institute for Health Information (CIHI), will provide a more accurate foundation for long-term planning of human resource needs for the medical laboratory science profession in Canada.

The rapid decline of uptake of diagnostic cytology technologists into the workforce is more problematic. Recent advances in technology resulting in increased use of automation for cytology screening and quality assurance appear to be having a direct impact on the number of diagnostic cytology technologists required in the workplace. CSMLS 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	2004	2005
NF	11.1	20.0	66.7	100
NB	54.5	30.8	36.4	50.0
QC	6.5	4.5	6.5	17.2
ON	45.8	56.4	20.8	13.5
MB	12.5	71.4	12.5	50.0
SK	25.0	0	25.0	60.0
AB	50.0	16.7	25.0	42.9
BC	44.4	39.1	27.8	47.6