



Canadian Society for Medical Laboratory Science
Société canadienne de science de laboratoire médical

Medical Laboratory Professionals Employment Report One Year Post Certification 2021

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1. Executive Summary

Survey Purpose:

This survey examines the employment trends of medical laboratory professionals (MLPs) who were successful in passing the Canadian Society for Medical Laboratory Science (CSMLS) certification exam within a specified year. The employment information is focused on the respondents experience one year after certification and the pathways taken, including barriers and facilitators, to reach their goals. It provides an indication of the labour market's need for MLPs, as well as information for employers, academic programs, and students evaluating entrance into the profession.

Participants:

Medical Laboratory Technologists (MLT; general, clinical genetics and cytotechnologists) and Medical Laboratory Assistants (MLA) and who passed their CSMLS certification exam in 2021 are included in the analysis, and compared to previous years. Employment rates are determined one year after successful completion of the exam in 2021. A total of 1039 unique certified graduates completed the certification exam in 2021, resulting in a 21% (221/1039) participation rate (MLT =25%, 151/613; MLA = 16%, 70/426). Participation rates are consistent with the previous year for both MLAs and MLTs.

Methodology:

The survey was administered via SurveyMonkey approximately 12 months after the respondent's certification date.

Results:

One Year Post-Certification Employment Status:

- 97% of MLTs were employed at certification level at the time of the survey
 - Increased employment levels achieved in 2017 for MLTs have been sustained
 - 86% of employed MLTs reported working full-time or full time equivalent (FTE)
- 74% of MLAs were employed at certification level at the time of the survey
 - Increased employment levels achieved in 2021 for MLAs have also been sustained
 - 75% of employed MLAs were working full-time or FTE
 - MLA preference to work full-time has increased over the previous year, and is comparable to the value held in 2017 at 80%.
 - MLAs remain more likely to be hired into a temporary or casual position

Length of Time to Find Employment at Certification Level:

- MLTs were securing permanent jobs faster than the previous four years
 - The total employment rate was initially slower but normalized around month 9
- MLA Employment rate remains consistent with previous years

Key Findings:

- Permanent full-time positions were more available
 - Both MLTs and MLAs are reporting higher levels of permanent full-time employment (Though this value for MLAs also spiked at the onset of the COVID-19 pandemic)
- Fewer MLTs and MLAs are looking for work, which supports an increased level of contentment with their current employment arrangements
- A majority of respondents indicated they wanted to remain with the same department and organization for 5 or more years

- The second largest group were those who had already changed jobs prior to completing the survey
- Derived general satisfaction scores for both MLT and MLA respondents are 81% and 60%, respectively
 - The scores are slightly lower this year in comparison to their 5-year averages.
 - The difference, however, is within the range of the margin of error (likely not significant)
 - Advocacy efforts directed at employers may help resolve some factors contributing to overall satisfaction
- One-year post certification, a large share of MLTs (51%) and MLAs (48%) are employed at the site where they completed their clinical placement, which demonstrates the influence their training has on employment prospects
 - 43% of MLTs and 35% of MLAs replied that their clinical placement site is the first department and organization they worked with after graduation
 - New MLPs may experience more pressure to accept a job at a training site as compared to those trained in 2017-2018 who indicated they did not experience as much pressure
- Employer's expectations are less likely perceived as “at the right level” for both MLTs and MLAs
 - For MLAs, this is compounded by the inaccessibility of guidance when needed

2. Introduction to the Newly Certified Graduate Employment Survey: 2021

Survey Purpose:

This survey examines the employment trends of medical laboratory professionals (MLPs) who were successful in passing their Canadian Society for Medical Laboratory Science (CSMLS) certification exam within a specified year. The employment information is focused on the respondents experience one year after certification and the pathways taken, including barriers and facilitators, to reach their goals. It provides an indication of the labour market's need for MLPs, as well as information for employers, academic programs, and students evaluating entrance into the profession.

Survey Design History:

Table 1. Chronological List of Changes to the Survey

Dissemination	Certification	Comments
2014	2013	Evaluation and redesign of survey was initiated with small question changes implemented in calendar year 2015. Data collection within calendar 2014 and prior may not be comparable to current survey questions
2015	2014	Survey changes implemented.
2016	2015	Internal processes were updated and survey methodology was reviewed. Additional changes to be implemented in 2017 with minimal impact on question structure. Renamed to the Newly Certified Graduate Employment survey.
2017	2016	Methodology improvements were made, which resulted in the approximate doubling of participation rate.
2018	2017	The question "Are you still employed by the first department and organization you work with after graduation?" was added.
2022	2020	Report named "CSMLS Employment Report - One Year Post Certification"
2023	2021	Numerous survey questions edited to improve clarity and efficiency Report renamed to "Medical Laboratory Professionals Employment Report. One Year Post Certification" to reflect IEMLT growth

Survey Dissemination:

The survey was sent to all CSMLS certification exam candidates who successfully passed their exam in the specified year and was administered via SurveyMonkey approximately 12 months after the respondent's certification date. A request to participate in the survey was sent to respondents, who were contacted by email from a list generated via iMIS query.

Participation Rates:

Medical Laboratory Technologists (MLT; general, clinical genetics and cytotechnologists) and Medical Laboratory Assistants (MLA) and who passed their CSMLS certification exam in 2021 are included in the analysis, and compared to previous years. Employment rates are determined one year after successful completion of the exam in 2021. A total of 1039 unique certified graduates completed the certification exam in 2021, resulting in a 21% (221/1039) participation rate (MLT =25%, 151/613; MLA = 16%, 70/426). Participation rates are consistent with the previous year for both MLAs and MLTs.

MLT subgroups, as indicated in **Table 2** below, were combined for the analysis due to the vast majority being general MLTs. This process is consistent with previous years' analysis. Survey questions are not mandatory and thus, some n values (number of respondents) differ between questions. The margins of error derived from 221 MLT and 70 MLA responses are approximately 5% and 11%, respectively.

Table 2. Survey Participation Rates

	2017	2018	2019	2020	2021
MLT Exam Passes	616	636	652	656	613
MLT total	241	198	205	165	221
General Medical Laboratory Technologist (MLT)	229	188	193	160	139
Clinical Genetics Technologist (MLT)	8	5	8	4	7
Diagnostic Cytotechnologist (MLT)	4	5	4	1	5
MLA Exam Passes	590	684	532	403	426
Medical Laboratory Assistant (MLA)	146	117	94	56	70

Membership Status:

Most respondents in 2021 were CSMLS members at the time of their survey: 81% of MLTs and 64% of MLAs.

Table 3. Membership Status

	2017	2018	2019	2020	2021
MLT	79.3%	78.8%	80.7%	77.9%	81.4%
MLA	63.6%	67.5%	78.3%	73.2%	64.0%

Data Inclusion and Considerations:

- Any changes to data analysis methods or presentation have been applied retroactively to each year represented in the report, ensuring an accurate comparison to the previous years can be made.
- In some instances, respondents did not answer every question contained within the survey. The individual responses collected are not excluded based on coming from an incomplete survey.
- An investigation of duplicate survey answers from the same IP addresses is described in the 2019 report. The findings supported that a duplicate IP address, alone, is not a sufficient reason to exclude a data set.

Provincial Demographics:

Table 4 Compares response rate demographics to census population data and then calculates the deviation between the two. A heat map is applied to help identify the regions in Canada where response rates are lower (blue) or higher (red) than would be expected from the census data.

Table 4. Provincial Demographics

	MLT	MLA	All	Census	Δ
Alberta	20	16	36 16.2%	11.7%	4.5%
British Columbia	17	2	19 8.6%	13.7%	-5.1%
Manitoba	14	4	18 8.1%	3.6%	4.5%
New Brunswick	5	4	9 4.1%	2.1%	2.0%
Newfoundland and Labrador	6	0	6 2.7%	1.3%	1.4%
Northwest Territories	1	0	1 0.5%	0.1%	0.3%
Nova Scotia	17	13	30 13.5%	2.6%	10.9%
Nunavut	0	0	0 0.0%	0.1%	-0.1%
Ontario	49	30	80 36.0%	38.8%	-2.8%
Prince Edward Island	2	0	2 0.9%	0.4%	0.5%
Quebec	5	0	5 2.3%	22.3%	-20.0%
Saskatchewan	15	1	16 7.2%	3.1%	4.1%
Yukon	0	0	0 0.0%	0.1%	-0.1%

3. Academic Demographics

Location:

- 95% of MLTs and 93% of MLAs were trained within Canada
- The largest number of respondents indicated they were trained in Ontario, followed by Alberta
 - See table 5 for MLT Education by Province
 - See table 6 for MLA Education by Province
- Values have remained consistent for the past 5 years

Table 5. MLT Education by Province

	2017	2018	2019	2020	2021	Ave.
Alberta	24.7%	19.9%	21.6%	17.7%	16.1%	20.0%
British Columbia	9.6%	10.5%	15.7%	13.4%	8.1%	11.4%
Manitoba	7.1%	5.8%	6.9%	3.7%	8.1%	6.3%
New Brunswick	2.9%	3.1%	2.5%	5.5%	4.7%	3.7%
Newfoundland	2.5%	3.7%	2.0%	3.7%	4.7%	3.3%
Northwest Territories	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Nova Scotia	0.4%	5.2%	3.4%	7.9%	8.7%	5.1%
Nunavut	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Ontario	34.7%	40.3%	31.9%	32.9%	33.6%	34.7%
Prince Edward Island	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Quebec	5.0%	2.6%	3.9%	1.8%	4.0%	3.5%
Saskatchewan	4.6%	3.1%	3.9%	3.7%	6.7%	4.4%
Yukon	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
International	8.4%	5.8%	8.3%	9.8%	5.4%	7.5%
Response Count	239	191	204	164	149	

Table 6. MLA Education by Province

	2017	2018	2019	2020	2021	Ave.
Alberta	20.5%	13.9%	12.0%	19.6%	14.3%	16.1%
British Columbia	4.1%	0.9%	2.2%	0.0%	1.4%	1.7%
Manitoba	11.6%	7.0%	6.5%	8.9%	4.3%	7.7%
New Brunswick	6.2%	6.1%	2.2%	8.9%	7.1%	6.1%
Newfoundland	2.7%	2.6%	1.1%	0.0%	0.0%	1.3%
Northwest Territories	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Nova Scotia	7.5%	11.3%	16.3%	8.9%	15.7%	12.0%
Nunavut	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Ontario	39.7%	47.0%	51.1%	44.6%	45.7%	45.6%
Prince Edward Island	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Quebec	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Saskatchewan	2.1%	3.5%	2.2%	1.8%	2.9%	2.5%
Yukon	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
International	5.5%	7.8%	6.5%	7.1%	8.6%	7.1%
Response Count	146	115	92	56	70	

Institution:

The following tables show a heat map of the current year compared to a heat map of the 5-year averages. 2021 values that are shaded darker than the corresponding 5-year average indicate that an above average number of responses were received for that institution in the current year. When comparing the current year to the five-year averages for each institution, the values obtained are similar. Differences between the two do not exceed 4% for MLTs and 5% for MLAs. The only exception is Medix, ON where the 5-year average is 8.4% higher, as it was not selected by any MLAs in 2021. See **Table 7** and **Table 8** for MLT and MLA institution data, respectively.

- The Michener Institute of Education at UHN, ON, was selected most frequently by MLTs as their place of education.
- Cape Breton Business College (CBBC), NS was selected most frequently by MLAs as their place of education

Table 7. MLT Education by Institution

	2017	2018	2019	2020	2021	Ave.
British Columbia Institute of Technology (BCIT), BC	7.1%	7.9%	13.2%	10.4%	5.4%	8.8%
Cambrian College, ON	4.2%	4.2%	5.4%	3.0%	4.0%	4.2%
Cégep de l'Outaouais, QC	0.4%	0.5%	1.0%	0.0%	0.0%	0.4%
Cégep de Rimouski, QC	0.8%	0.0%	0.0%	0.0%	0.0%	0.2%
Cégep de St-Hyacinthe, QC	0.0%	0.0%	0.0%	0.0%	0.7%	0.1%
Cégep St-Jean-sur-Richelieu, QC	0.0%	0.0%	0.0%	0.0%	1.3%	0.3%
Collège communautaire du Nouveau-Brunswick, NB	0.8%	1.6%	0.5%	2.4%	0.7%	1.2%
Collège de Rosemont, QC	0.4%	0.0%	0.0%	0.0%	0.0%	0.1%
College of New Caledonia (CNC), BC	2.5%	2.6%	2.5%	3.0%	2.7%	2.7%
College of the North Atlantic (CNA), NL	2.5%	3.7%	2.0%	3.7%	4.7%	3.3%
Dalhousie University, NS	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Dawson College, QC	3.3%	2.1%	2.9%	1.8%	2.0%	2.4%
Diagnostic Svs of MB School of Diagnostic Cytology, MB	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Mohawk College, ON	1.7%	2.6%	0.0%	0.0%	0.7%	1.0%
New Brunswick Community College (NBCC) NB	2.1%	1.6%	2.0%	3.0%	2.0%	2.1%
Northern Alberta Institute of Technology (NAIT), AB	7.1%	4.2%	7.4%	2.4%	0.7%	4.4%
Nova Scotia Community College (NSCC), NS	0.4%	5.2%	3.4%	7.9%	8.7%	5.1%
Oulton College, NB	0.0%	0.0%	0.0%	0.0%	2.0%	0.4%
Red River College, MB	7.1%	5.8%	6.9%	3.7%	8.1%	6.3%
Saskatchewan Institute of Applied Science and Technology (SIAST), SK	4.2%	0.0%	0.0%	0.0%	1.3%	1.1%
Saskatchewan Polytechnic (SaskPoly), SK	0.4%	3.1%	3.9%	3.7%	5.4%	3.3%
Southern Alberta Institute of Technology (SAIT), AB	15.5%	9.4%	9.3%	9.8%	10.1%	10.8%
St Clair College, ON	2.1%	4.2%	5.4%	3.0%	1.3%	3.2%
St Lawrence College, ON	5.0%	3.1%	2.0%	7.9%	6.0%	4.8%
The Michener Institute of Education at UHN, (TMI) ON	17.2%	22.0%	14.2%	13.4%	18.1%	17.0%
University of Alberta, AB	2.1%	6.3%	4.9%	5.5%	5.4%	4.8%
University of Ontario Institute of Technology (UOIT), ON	4.6%	4.2%	4.9%	5.5%	3.4%	4.5%
Other (International)	8.4%	5.8%	8.3%	9.8%	5.4%	7.5%
Response Count	239	191	204	164	149	

Table 8. MLA Education by Institution

	2017	2018	2019	2020	2021	Ave.
ABES (Alberta Business and Educational Services), AB	0.7%	0.0%	0.0%	3.6%	1.4%	1.1%
Algonquin Careers Academy, ON	2.7%	0.9%	5.4%	7.1%	10.0%	5.2%
Anderson College, ON	6.2%	7.0%	8.7%	8.9%	8.6%	7.9%
Cambrian College, ON	0.0%	1.7%	0.0%	0.0%	0.0%	0.3%
Camosun College Victoria, BC	0.7%	0.0%	0.0%	0.0%	0.0%	0.1%
Cape Breton Business College (CBBC), NS	3.4%	8.7%	10.9%	8.9%	14.3%	9.2%
CCNB - Edmundston, CESAB, NB	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Centennial College, ON	6.8%	4.3%	6.5%	7.1%	0.0%	5.0%
Collège Communautaire du Nouveau-Brunswick, NB	0.0%	0.9%	0.0%	0.0%	0.0%	0.2%
College of the North Atlantic, NL	2.7%	2.6%	1.1%	0.0%	0.0%	1.3%
Confederation College, ON	2.1%	0.9%	1.1%	1.8%	0.0%	1.2%
Everest College, ON	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Herzing College, MB	6.8%	0.9%	2.2%	1.8%	2.9%	2.9%
Medix, ON	11.6%	13.0%	12.0%	5.4%	0.0%	8.4%
Michener Institute/Mohawk College, ON	2.7%	0.9%	1.1%	0.0%	2.9%	1.5%
MTI Community College, BC	2.1%	0.0%	0.0%	0.0%	0.0%	0.4%
National Academy of Health and Business, ON	2.7%	0.9%	2.2%	0.0%	1.4%	1.4%
Neeginan Institute, MB	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
New Brunswick Community College, NB	3.4%	0.0%	1.1%	1.8%	0.0%	1.3%
North Alberta Institute of Technology, AB	11.0%	2.6%	3.3%	8.9%	2.9%	5.7%
Nova Scotia Community College, NS	4.1%	2.6%	5.4%	0.0%	1.4%	2.7%
Ontario Business College, ON	0.7%	0.0%	0.0%	0.0%	0.0%	0.1%
Oulton College, NB	2.7%	5.2%	1.1%	7.1%	7.1%	4.7%
Oxford College of Arts, Business, and Technology, ON	0.0%	0.0%	0.0%	1.8%	4.3%	1.2%
Red Deer Community College, AB	0.0%	7.0%	2.2%	3.6%	0.0%	2.5%
Red River College, MB	0.7%	0.0%	0.0%	0.0%	0.0%	0.1%
Robertson College, MB	4.1%	6.1%	4.3%	7.1%	1.4%	4.6%
Royal Alexandra Hospital, AB	0.0%	0.9%	0.0%	0.0%	0.0%	0.2%
Saskatchewan Polytechnic, SK	2.1%	3.5%	2.2%	1.8%	2.9%	2.5%
Southern Alberta Institute of Technology, AB	8.9%	3.5%	6.5%	3.6%	10.0%	6.5%
St Clair College, ON	2.1%	1.7%	1.1%	8.9%	2.9%	3.3%
St Lawrence, ON	2.1%	5.2%	9.8%	3.6%	8.6%	5.8%
Stenberg College, BC	0.0%	0.9%	0.0%	0.0%	0.0%	0.2%
Thompson University, BC	1.4%	0.0%	1.1%	0.0%	1.4%	0.8%
Vancouver Community College, BC	0.0%	0.0%	1.1%	0.0%	0.0%	0.2%
Westervelt College, ON	0.0%	10.4%	3.3%	0.0%	7.1%	4.2%
Other (International)	5.5%	7.8%	6.5%	7.1%	8.6%	7.1%
Response count	146	115	92	56	70	

Prior Education:

Table 9 and **Table 10** show prior education statistics for MLTs and MLAs respectively. Within the tables, the percentages indicate the share of the total respondents who obtained a credential. Note that one respondent may hold multiple credentials. Respondents were provided the option to select “none of the above” for the 2021 survey. A bachelor’s degree remained the most common form of post-secondary education, with none of the above being the second most frequently selected option for both MLTs and MLAs. A heat map was applied to the tables to help visualize this information. Regarding incomplete education credentials, the 2021 survey also added a “none of the above” option for this question enabling a direct measurement. In previous years this was determined by summing up all the incomplete credentials.

Table 9. MLT Prior Education Statistics

	2017	2018	2019	2020	2021
Trade or vocational diploma or certificate	5.9%	6.3%	6.4%	9.8%	7.9%
Community college or CEGEP certificate or diploma	5.5%	9.5%	12.4%	10.4%	6.6%
Technical institute diploma or certificate	8.9%	9.0%	15.3%	11.7%	9.9%
University certification below bachelor's degree	5.9%	12.2%	10.9%	14.7%	6.6%
Bachelor's degree (e.g., B.A./B.Sc./B.Ed)	40.1%	60.8%	55.9%	58.3%	56.3%
Certification between Bachelor's and Master's	0.8%	5.3%	5.0%	4.9%	4.6%
Graduate degree (e.g., M.A./M.Sc./M.B.A./Ph.D.)	4.6%	9.5%	8.9%	12.3%	11.3%
None of the above	-	-	-	-	27.2%
Response Count	237	189	202	163	151
Prior education completed within Canada	-	62.1%	64.5%	64.2%	74.6%
Respondents indicating no incomplete credentials	78.1%	82.0%	85.1%	85.9%	72.8%

Table 10. MLA Prior Education Statistics

	2017	2018	2019	2020	2021
Trade or vocational diploma or certificate	10.0%	23.7%	23.9%	21.4%	22.9%
Community college of CEGEP certificate or diploma	12.1%	27.2%	29.3%	16.1%	21.4%
Technical institute diploma or certificate	8.6%	18.4%	16.3%	21.4%	20.0%
University certification below bachelor's degree	3.6%	17.5%	25.0%	10.7%	12.9%
Bachelor's degree (e.g., B.A./B.Sc./B.Ed.)	15.7%	39.5%	39.1%	33.9%	45.7%
Certification between Bachelor's and Master's	0.0%	14.9%	15.2%	8.9%	11.4%
Graduate degree (e.g., M.A./M.Sc./M.B.A./Ph.D.)	0.7%	14.0%	14.1%	14.1%	10.0%
None of the above	-	-	-	-	37.1%
Response Count	140	114	92	56	70
Prior education completed within Canada	-	48.3%	41.8%	44.1%	56.7%
Respondents indicating no incomplete credentials	82.9%	81.6%	83.7%	73.2%	67.1%

4. Employment Status

One Year Post-Certification Employment Status:

- 97% of MLTs were employed at certification level at the time of the survey
 - Increased employment rates achieved in 2017 for MLTs have been sustained
- 74% of MLAs were employed at certification level at the time of the survey
 - Increased employment rates achieved in 2021 for MLAs have also been sustained
- **Table 11** and **Table 12** show Employment status data for the past 5 years for MLTs and MLAs respectively.

Table 11. MLT Employment at Certification Level

	2017	2018	2019	2020	2021
Currently Employed	95.4%	96.8%	97.0%	97.5%	97.9%
Employed at certification level	91.5%	96.3%	96.0%	96.9%	96.5%
Response Count	237	189	202	163	145

Table 12. MLA Employment at Certification Level

	2017	2018	2019	2020	2021
Currently Employed	74.3%	77.2%	77.2%	85.7%	84.1%
Employed at certification level	65.0%	68.4%	67.4%	76.8%	74.1%
Response Count	104	88	71	48	69

Insight into the reasons MLTs were not currently working at their certification level is provided in **Table 13**. Two indicated that they couldn't find a job or no jobs were available, which is consistent with reasons given in past years. What's unusual for 2021 is that two MLTs chose an alternate career path, and of the two that selected "can't find a job / no jobs available", one was also not looking for work because they also pursued an alternate career path. In effect, 3 MLTs changed careers upon becoming certified in 2021.

Table 13. Reasons why MLTs are not currently working at Certification Level

	2017	2018	2019	2020	2021
Alternate Career Path	0.0%	0.0%	0.0%	0.0%	40.0%
Can't find a job / no jobs available	95.0%	42.9%	37.5%	40.0%	40.0%
Family responsibilities	-	-	-	-	20.0%
Furthering education / studying	5.0%	14.3%	12.5%	0.0%	0.0%
Personal reasons	0.0%	0.0%	25.0%	20.0%	0.0%
Temporarily between jobs / expecting job soon	0.0%	42.9%	25.0%	40.0%	0.0%
Response count	20	7	8	5	5

Table 14. Reasons why MLAs are not currently working at Certification Level

	2017	2018	2019	2020	2021
Alternate Career Path	6.1%	2.9%	16.7%	7.7%	0.0%
Can't find a job / no jobs available	61.2%	73.5%	76.7%	53.8%	73.3%
Family responsibilities	-	-	-	-	0.0%
Furthering education / studying	6.1%	11.8%	3.3%	23.1%	6.7%
Personal reasons	14.3%	5.9%	3.3%	7.7%	0.0%
Temporarily between jobs / expecting job soon	12.2%	5.9%	0.0%	7.7%	20.0%
Response count	49	34	30	13	15

Insight into the reasons MLAs were not currently working at their certification level is provided in **Table 14**. The number one reason in 2021 was that no jobs were available and over half (7/11) would also not consider moving to find a job. This is consistent with the 2020 findings.

Number of Positions at Certification Level:

For MLTs and MLAs respectively, **Tables 15** and **Table 16** show the number of jobs each respondent held at the time of the survey. The values obtained for the 2021 cohort suggest a slightly lower amount of people working only one job in comparison to the previous 3 years. Though, when considering the error associated with the quantification, the number of positions held are generally consistent with previous years for both MLTs and MLAs. For MLAs there was a significant increase in the number of respondents working only one job after 2017, and that appears to have been sustained.

Table 15. Number of Positions at Certification Level for MLTs

	2017	2018	2019	2020	2021
One	87.4%	90.0%	87.6%	87.7%	85.3%
Two	10.7%	9.4%	10.9%	11.6%	12.5%
Three or more	1.9%	0.6%	1.6%	0.6%	2.2%
Response count	215	180	193	155	136

Table 16. Number of Positions at Certification Level for MLAs

	2017	2018	2019	2020	2021
One	68.9%	80.8%	80.6%	83.7%	78.4%
Two	28.9%	16.7%	14.5%	16.3%	19.6%
Three or more	2.2%	2.6%	4.8%	0.0%	2.0%
Response count	90	78	62	43	51

Work Classification:

Questions regarding work classification have been redesigned for this report. A single question with the instruction ‘select all that apply’ has been implemented, with further clarification on the manner of casual employment included. Its possible modification of this question during the 2021 study may have impacted respondent percentages in comparison to previous years. However, due to eliminating the text box response in favor of selection mechanism for multiple job holders, input from 2021 can be considered more standardized. A second related question regarding full time equivalent work was also added to help understand the schedule of those who work at jobs that are considered less than full time.

For MLTs, see **Table 17**, the number of respondents indicating a permanent full-time position has gone up over previous years at the expense of temporary full-time. However, the percentage reporting full-time work, when combining both permanent and temporary, remains consistent for the past 5 years. There is a 22% gap between those who are working full-time equivalent (FTE) and those who have a full-time position. This is a clear indication that there is a significant quantity of MLTs who have to work at multiple jobs to sustain a sufficient number of hours. An investigation into the reasons why respondents were working less than FTE was also initiated, and inaccessibility to full-time work was by far the largest factor for MLTs.

Table 17. MLT Employment Classification

	2017	2018	2019	2020	2021
Permanent full-time	42.6%	38.3%	42.5%	44.0%	59.2%
Permanent part-time	18.2%	14.9%	13.5%	20.2%	17.1%
Permanent casual	-	-	-	-	8.6%
Temporary full-time	18.2%	15.4%	13.5%	20.2%	4.6%
Temporary part-time	4.8%	9.6%	7.2%	2.4%	3.9%
Temporary casual	-	-	-	-	6.6%

	2021
Full-time or equivalent	86.1%
Part-time	13.9%
Response count	137

What is the main reason you work less than full time?

	2021
Can't find full-time work	47.4%
Characteristics of the job(s)	21.1%
Family responsibilities	5.3%
Furthering education / studying	0.0%
Personal preference	15.8%
Temporarily less than full time	10.5%
Response count	19

MLAs in the 2020 cohort indicated their work was primarily casual, at a percentage (29%) which remained consistent for the previous 5 years. However, for the 2021 group, see **Table 18**, full-time work was more prevalent. There is a 21% gap between those who are working FTE and those who have a full-time position. This is a clear indication that there is a significant quantity of MLAs who must work at multiple jobs to

sustain a sufficient number of hours. An investigation into the reasons why respondents were working less than FTE was also initiated, and inaccessibility to full-time work by far the largest factor for MLAs.

Table 18. MLA Employment Classification

	2017	2018	2019	2020	2021
Permanent full-time	15.4%	15.0%	23.4%	13.0%	26.7%
Permanent part-time	31.9%	37.5%	34.4%	19.6%	21.7%
Permanent casual	-	-	-	-	18.3%
Temporary full-time	12.1%	7.5%	7.8%	23.9%	26.7%
Temporary part-time	8.8%	8.8%	6.3%	13.0%	3.3%
Temporary casual	-	-	-	-	3.3%

	2021
Full-time or equivalent	74.5%
Part-time	25.5%
Response count	51

What is the main reason you work less than full time?

	2021
Can't find full-time work	38.5%
Characteristics of the job(s)	0.0%
Family responsibilities	23.1%
Furthering education / studying	15.4%
Personal preference	15.4%
Temporarily less than full time	7.7%
Response count	13

Length to Time to Find Employment at Certification Level:

Figure 1 for MLTs and **Figure 2** for MLAs show the length of time to achieve employment at certification level. The data is summed as a running total of sequential months and then normalized to 100% employment at the time of the survey. A scaling factor was then applied to all sums to reflect the unemployment in a given year.

For the MLTs who achieved employment at certification level, some aspects seemed sluggish for the 2021 respondents. For instance, by month 5, it's typical to have an employment rate of 80% or more, but for this year it was only 75% at that time. However, the ratio comparing permanent employment to all employment during this time has also become smaller, indicating more people are getting permanent jobs faster. The number of respondents that achieved employment prior to the first month after certification also saw a sharp rise compared to previous years, which contrasts with the sluggish rate observed for the rest of the year.

For the MLAs who achieved employment at certification level, the employment rate throughout the current year seemed a little bit slower than the previous years but then equalized after month 12. Overall, the current year appears consistent with previous years.

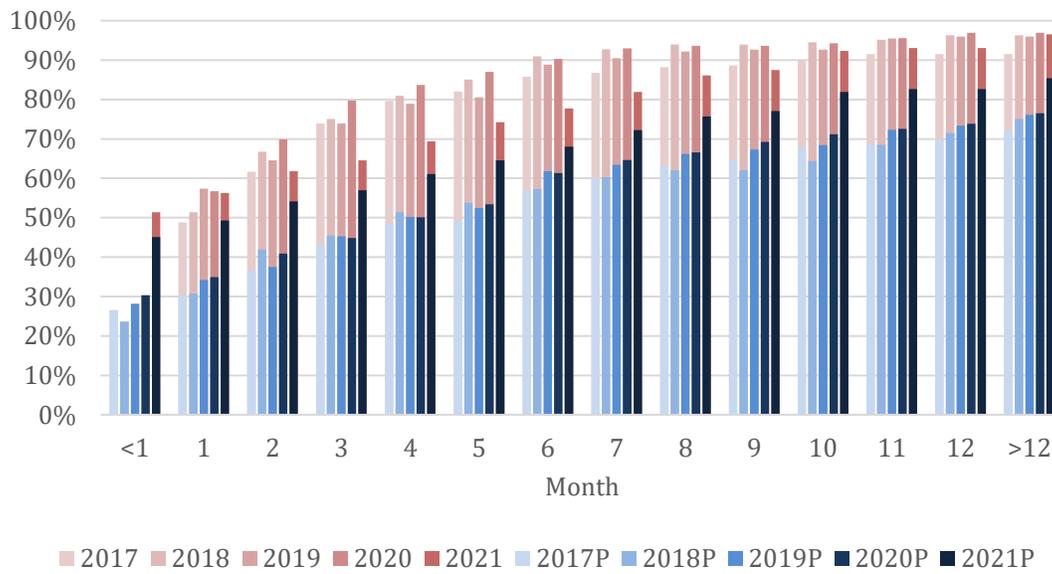


Figure 1. MLT Employment at Certification Level 2017-2021.
Permanent (blue) and total employment (red).

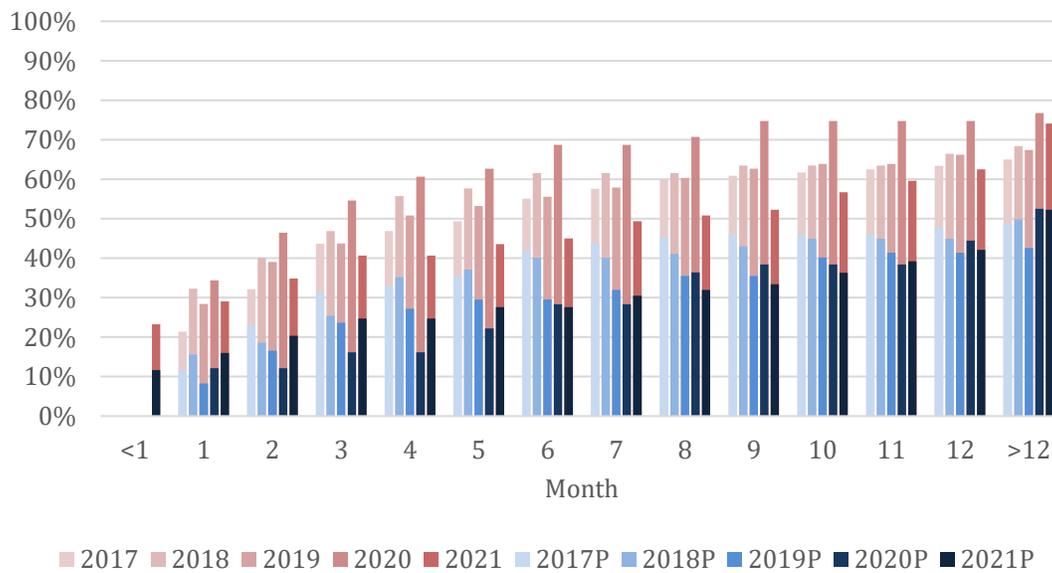


Figure 2. MLA Employment at Certification Level 2017-2021.
Permanent (blue) and total employment (red).

5. Employment Demographics

Employment Setting:

- MLTs (73%) and MLAs (58%) indicate most of their positions are in hospitals, which is consistent with previous years.
- Private laboratory or clinic is chosen less frequently than past years for MLAs.

Table 19. MLT Employment Setting

	2017	2018	2019	2020	2021
Government Laboratory	4.3%	1.7%	4.7%	2.4%	3.9%
Hospital	75.7%	79.9%	70.1%	79.2%	73.7%
Private Laboratory or Clinic	12.9%	13.4%	14.0%	9.5%	10.5%
Public Health Laboratory	4.8%	3.9%	9.8%	8.3%	11.2%
Other	2.4%	1.1%	1.4%	0.6%	0.7%
Response count	210	179	214	168	152

Table 20. MLA Employment Setting

	2017	2018	2019	2020	2021
Government Laboratory	5.1%	2.2%	5.5%	4.3%	10.5%
Hospital	46.5%	48.3%	49.3%	61.7%	57.9%
Private Laboratory or Clinic	37.4%	36.0%	30.1%	21.3%	15.8%
Public Health Laboratory	8.1%	9.0%	12.3%	12.8%	7.0%
Other	3.0%	4.5%	2.7%	0.0%	8.8%
Response count	99	89	73	47	57

Discipline:

It's noteworthy that the question examining MLP discipline was modified for the 2021 data collection. It was changed from a "dropdown" selection to a "select all that apply". This may influence respondents to select core/rotation less frequently in preference for discipline specific options. See **Table 21** and **Table 22** for a breakdown of roles by discipline for MLTs and MLAs respectively. MLTs certified in 2021 selected Hematology (22%) and Transfusion Science (18%) far more frequently than the previous 4 years at the expense of the core/Rotation option. For MLAs, 'Phlebotomy/Blood Collection' remained the discipline most frequently selected at 31% and specimen collection/processing, currently at 21%, has been steadily increasing since 2017.

Table 21. MLT Discipline

	2017	2018	2019	2020	2021	Ave.
Clinical Chemistry	13.3%	14.4%	17.7%	13.9%	19.8%	15.8%
Clinical Genetics	4.1%	4.6%	5.4%	4.0%	3.6%	4.3%
Clinical Microbiology	17.9%	14.9%	16.1%	17.8%	16.6%	16.7%
Core/Rotation	40.5%	42.5%	39.2%	41.8%	12.3%	35.3%
Cytotechnology	2.1%	1.1%	1.6%	1.2%	1.6%	1.5%
Hematology	8.7%	5.7%	6.5%	6.5%	22.1%	9.9%
Histotechnology	6.7%	11.5%	7.5%	7.8%	5.5%	7.8%
Transfusion Science	6.7%	5.2%	5.4%	6.8%	17.8%	8.4%
Not Applicable	0.0%	0.0%	0.5%	0.1%	0.8%	0.3%

Table 22. MLA Discipline

	2017	2018	2019	2020	2021	Ave.
Clinical Chemistry	7.1%	7.4%	5.4%	5.8%	4.2%	6.0%
Clinical Genetics	-	-	-	-	3.1%	0.6%
Clinical Microbiology	9.5%	8.8%	12.5%	10.1%	17.7%	11.7%
Core/Rotation	17.9%	20.6%	21.4%	18.3%	3.1%	16.3%
Cytotechnology	0.0%	0.0%	0.0%	0.6%	2.1%	0.5%
Hematology	0.0%	0.0%	5.4%	1.5%	3.1%	2.0%
Histotechnology	0.0%	1.5%	5.4%	1.8%	7.3%	3.2%
Phlebotomy/Blood Collection	27.4%	16.2%	12.5%	22.3%	31.3%	21.9%
Specimen collection/processing	13.1%	16.2%	16.1%	18.3%	20.8%	16.9%
Transfusion Science	1.2%	0.0%	0.0%	0.6%	1.0%	0.6%
Other	23.8%	29.4%	21.4%	20.7%	6.3%	20.3%

6. Search for Employment

Job search Methods:

Most MLT (43%) and MLA (46%) graduates found their position(s) by answering a job ad on the internet. Results over the past 5 years remain fairly consistent. Other popular choices remain being approached or contacted directly by employer or contacting an employer directly. See **Table 23** for MLT data and **Table 24** for MLA data.

Table 23. MLT Job Search Methods

	2017	2018	2019	2020	2021
Answered job ad (internet, etc.)	48.5%	48.0%	43.0%	42.0%	42.9%
Approached or contacted directly by employer	21.6%	21.8%	24.9%	26.1%	19.5%
Campus placement office	0.0%	1.1%	1.6%	1.3%	0.0%
Contacted employer directly	9.8%	11.7%	10.4%	14.0%	12.8%
Contacted previous employer/job held before	5.9%	2.2%	2.1%	1.3%	3.0%
Hired by clinical placement site	4.9%	6.7%	7.8%	7.6%	11.3%
Networking, job fair	0.5%	1.7%	2.1%	0.6%	3.8%
Private Employment Agency	0.0%	0.6%	0.0%	0.0%	0.8%
Public Employment Agency	0.0%	0.6%	2.1%	0.6%	1.5%
Referred by family, friends, or instructors	8.8%	5.0%	6.2%	6.4%	4.5%
Response count	204	179	193	157	133

Table 24. MLA Job Search Methods

	2017	2018	2019	2020	2021
Answered job ad (internet, etc.)	60.0%	46.8%	54.0%	47.6%	46.3%
Approached or contacted directly by employer	8.9%	6.5%	12.7%	19.0%	14.9%
Campus placement office	5.6%	5.2%	4.8%	4.8%	6.0%
Contacted employer directly	12.2%	16.9%	9.5%	7.1%	16.4%
Contacted previous employer/job held before	0.0%	0.0%	1.6%	0.0%	0.0%
Hired by clinical placement site	3.3%	9.1%	3.2%	4.8%	4.5%
Networking, job fair	2.2%	5.2%	3.2%	2.4%	3.0%
Private Employment Agency	0.0%	1.3%	1.6%	0.0%	1.5%
Public Employment Agency	1.1%	0.0%	0.0%	2.4%	1.5%
Referred by family, friends, or instructors	5.6%	9.1%	9.5%	11.9%	6.0%
Response count	90	77	63	42	67

Job Attraction:

MLTs were asked to select the 3 most important criteria under consideration when choosing their position (**Table 25**). Their responses were compiled and then compared to previous years. In the previous 5 years, “Location” was the most important factor. This year, however, “Full time status” became the top choice at 18%. Previously it had been in the top 3 choices for each year included in this report, and it has seen incremental gains since 2017. Additionally, “Good work conditions” and “Employment benefits/perks” saw some modest gains in comparison to their 5-year average values. Otherwise, this year’s results are generally consistent with the 5-year averages.

MLAs were also asked to select the 3 most important criteria under consideration when choosing their position (**Table 26**). Like MLTs, “Location” was the most important factor the previous 5 years, but it has dropped from the top spot in the current year. “Chance to gain or develop skills” is now their most frequently selected choice at 16%. However, this value is consistent with its 5-year average, so hasn’t seen a rise in importance. What has changed is that “Full time status”, “Employment benefits/perks” and “Better career advancement opportunities” have all seen gains at the expense of location.

Table 25. MLT Job Attraction Criteria

	2017	2018	2019	2020	2021	Ave.
Better career advancement opportunities	3.6%	4.2%	5.7%	3.4%	4.5%	4.3%
Chance to gain or develop skills	14.0%	11.6%	12.2%	9.7%	13.8%	12.3%
Employment benefits/perks	5.8%	5.8%	6.2%	6.5%	9.3%	6.7%
Full time status	13.7%	15.4%	14.9%	15.3%	17.5%	15.4%
Good work conditions	3.4%	2.9%	4.3%	3.0%	8.5%	4.4%
Greater availability of jobs in general	6.1%	3.5%	5.7%	4.9%	4.5%	4.9%
Greater availability of specialized jobs	1.9%	1.3%	2.5%	1.3%	1.8%	1.7%
Location	20.3%	20.6%	19.7%	24.9%	16.0%	20.3%
Part-time or casual status	2.2%	2.1%	2.3%	1.3%	0.8%	1.7%
Quality of research and facilities	0.8%	0.6%	0.2%	0.0%	1.0%	0.5%
Salary	8.3%	11.4%	5.7%	6.7%	5.0%	7.4%
Type of work performed in the job	9.0%	10.0%	8.0%	11.2%	9.3%	9.5%
Wanted to work for a particular org.	3.7%	5.2%	5.3%	4.9%	4.0%	4.6%
Wanted to work with particular people	4.2%	3.7%	5.0%	5.4%	4.0%	4.4%
Response count	591	519	564	465	399	

Table 26. MLA Job Attraction Criteria

	2017	2018	2019	2020	2021	Ave.
Better career advancement opportunities	8.8%	4.7%	9.4%	9.5%	11.8%	8.8%
Chance to gain or develop skills	16.1%	13.2%	14.4%	15.1%	15.7%	14.9%
Employment benefits/perks	7.3%	8.1%	7.2%	5.6%	11.1%	7.9%
Full time status	6.5%	6.4%	6.1%	6.3%	11.1%	7.3%
Good work conditions	3.4%	3.8%	2.8%	2.4%	3.3%	3.1%
Greater availability of jobs in general	5.7%	3.4%	5.0%	4.8%	3.9%	4.6%
Greater availability of specialized jobs	0.4%	0.9%	1.7%	0.8%	2.0%	1.1%
Location	20.3%	16.2%	18.3%	17.5%	12.4%	17.0%
Part-time or casual status	3.4%	5.1%	3.9%	4.8%	4.6%	4.4%
Quality of research and facilities	1.1%	2.1%	0.6%	0.8%	2.0%	1.3%
Salary	8.4%	10.7%	8.9%	9.5%	7.8%	9.1%
Type of work performed in the job	9.2%	11.1%	10.0%	11.1%	9.2%	10.1%
Wanted to work for a particular org.	6.1%	9.4%	8.3%	8.7%	3.3%	7.2%
Wanted to work with particular people	1.5%	2.1%	1.7%	1.6%	2.0%	1.8%
Response count	261	234	180	126	153	

Relocation Demographics:

Most (61%) MLTs did not move for a position and this has increased in comparison to the previous 4 years (**Table 27**). These values support that employment opportunities at or near their academic sites remain available. 61% are willing to consider moving to find employment. Though sentiment increased during the previous 3 years, it returned to a value comparable to the 2017 result. The main reason MLTs would not consider relocation is due to “Personal circumstances / Family responsibilities”. Patterns associated with relocation for the 2021 MLTs are consistent with the 5-year averages (**Table 29**). Responses, from people coming to Canada from the international community, were lower this year than the 5-year average. Within Canada, those in Alberta relocated to another province most often, whereas British Columbia, Nova Scotia and Saskatchewan were all tied as the provinces moved to most often.

Table 27. MLT Relocation

Did you move from your place of academic program to find employment?

	2017	2018	2019	2020	2021
No - I did not move	46.7%	46.2%	50.0%	53.4%	60.6%
Yes, to another part of the same province	32.4%	24.2%	21.1%	27.4%	23.4%
Yes, to another province/ territory	19.0%	22.0%	21.1%	12.3%	14.6%
Yes, to another country	1.9%	7.7%	7.8%	6.8%	1.5%
Response count	105	91	90	73	137

Would you consider moving to find employment?

	2017	2018	2019	2020	2021
Yes	60.0%	57.1%	75.0%	80.0%	61.3%
No	40.0%	42.9%	25.0%	20.0%	38.7%
Response count	20	7	8	5	137

What is the main reason you would not move to a job?

	2017	2018	2019	2020	2021
Costs of living elsewhere	25.0%	0.0%	0.0%	0.0%	3.8%
I have already moved, and don't want to move again	-	-	-	-	11.3%
Moving expenses are prohibitive	12.5%	0.0%	0.0%	0.0%	3.8%
No guarantee to find work elsewhere	0.0%	50.0%	0.0%	0.0%	0.0%
Personal circumstances / Family responsibilities	62.5%	50.0%	100.0%	100.0%	39.6%
Satisfied with job	0.0%	0.0%	0.0%	0.0%	17.0%
Satisfied with living environment	-	-	-	-	17.0%
Social, cultural or linguistic reasons	-	-	-	-	7.5%
Studying / Continuing Education	0.0%	0.0%	0.0%	0.0%	0.0%
Response count	8	2	2	1	53

Most (79%) MLAs did not move to find a position (**Table 28**). This percentage tends to fluctuate slightly between years depending on how many MLAs move within their province but is consistently in the majority. These values indicate that employment opportunities at or near their academic sites remain available. 48% are willing to consider moving to find employment, which is comparable to the 5-year average of 50%. The main reason MLTs would not consider relocation is due to “Personal circumstances / Family responsibilities”, but job satisfaction is among the other important factors. Patterns associated with relocation for the 2021 MLAs are consistent with the 5-year averages (**Table 30**). Interprovincial migration for MLAs is somewhat infrequent, but the 5-year averages suggest some migration out of Ontario to British Columbia, Nova Scotia, and Alberta.

Table 28. MLA Relocation

Did you move from your place of academic program to find employment?

	2017	2018	2019	2020	2021
No - I did not move	82.5%	78.4%	91.7%	91.3%	79.1%
Yes, to another part of the same province	17.5%	21.6%	8.3%	8.7%	11.9%
Yes, to another province/ territory	0.0%	0.0%	0.0%	0.0%	7.5%
Yes, to another country	0.0%	0.0%	0.0%	0.0%	1.5%
Response count	40	37	36	23	67

Would you consider moving to find employment?

	2017	2018	2019	2020	2021
Yes	63.3%	44.1%	56.7%	38.5%	47.8%
No	36.7%	55.9%	43.3%	61.5%	52.2%
Response count	49	34	30	13	67

What is the main reason you would not move to a job?

	2017	2018	2019	2020	2021
Costs of living elsewhere	16.7%	15.8%	7.7%	0.0%	5.7%
I have already moved, and don't want to move again	-	-	-	-	20.0%
Moving expenses are prohibitive	5.6%	5.3%	0.0%	12.5%	8.6%
No guarantee to find work elsewhere	11.1%	0.0%	23.1%	12.5%	5.7%
Personal circumstances / Family responsibilities	27.8%	68.4%	38.5%	50.0%	25.7%
Satisfied with job	16.7%	5.3%	23.1%	0.0%	20.0%
Satisfied with living environment	-	-	-	-	11.4%
Social, cultural or linguistic reasons	-	-	-	-	0.0%
Studying / Continuing Education	22.2%	0.0%	7.7%	12.5%	2.9%
Response count	18	19	13	8	35

Table 29. MLT Provincial Migration

	AB	BC	MB	NB	NL	NT	NS	NU	ON	PE	QC	SK	YT	Int.
Current year:	-5	3	0	-2	-1	0	3	0	-1	2	0	3	0	-2
5-year total:	-35	26	-6	-1	-1	-1	9	1	-1	5	-3	24	3	-20
Average per year:	-7	5	-1	0	0	0	2	0	0	1	-1	5	1	-4

Heat map of average net migration per year

Table 30. MLA Provincial Migration

	AB	BC	MB	NB	NL	NT	NS	NU	ON	PE	QC	SK	YT	Int.
Current year:	1	1	1	-1	0	0	2	0	-2	0	0	-1	0	-1
5-year total:	3	5	1	-2	-1	0	5	0	-9	1	0	-2	0	-1
Average per year:	1	1	0	0	0	0	1	0	-2	0	0	0	0	0

Heat map of average net migration per year

Prior Work Experience:

One-year post certification, a large share of MLTs and MLAs, are employed at the site they completed their clinical placement, which shows the influence their training imparts on their employment prospects.

- 51% of the MLTs who achieved certification in 2021 found a position at their academic clinical placement, which is also in line with the 5-year average of 48%.
- 48% of the MLAs who achieved certification in 2021 found a position at their academic clinical placement, which is in line with the 5-year average of 45%.

The vast majority of MLTs and MLAs were also still employed by the first department and organization they worked with after graduation and there's also a strong correlation between the clinical placement site also being the first department and organization, 43% for MLTs and 35% for MLAs in the current year.

Table 31. MLT Prior Work Experience

Are you employed where you completed your clinical placement?

	2018	2019	2020	2021
Employed at clinical placement site	48.6%	51.1%	52.3%	51.4%
No clinical placement site	-	-	-	8.6%
Response count	175	190	153	140

Are you still employed by the first department and organization you worked with after graduation?

	2018	2019	2020	2021
Yes	75.7%	74.7%	67.1%	75.0%
Same organization but different department	11.3%	10.5%	21.9%	9.6%
No	13.0%	14.7%	11.0%	15.4%
Response count	177	190	155	136

Is your clinical placement site also the first department and organization?

	2018	2019	2020	2021
	40.0%	40.4%	36.3%	43.4%

Table 32. MLA Prior Work Experience

Are you employed where you completed your clinical placement?

	2018	2019	2020	2021
Employed at clinical placement site	48.6%	51.1%	52.3%	48.3%
No clinical placement site	-	-	-	3.4%
Response count	78	62	43	58

Are you still employed by the first department and organization you worked with after graduation?

	2018	2019	2020	2021
Yes	75.6%	84.1%	86.0%	64.7%
Same organization but different department	6.4%	7.9%	4.7%	11.8%
No	17.9%	7.9%	9.3%	23.5%
Response count	78	63	43	51

Is your clinical placement site also the first department and organization?

	2018	2019	2020	2021
	32.1%	34.9%	37.2%	35.3%

7. Continued Search for Employment

Employee Retention:

With key concerns relating to the health human resource shortage in Canada, we note the increased demand for laboratory testing that is coupled along with a shortage of medical laboratory personnel. It is imperative we understand the movement of labour, including the retention of existing workers, to address where shortages may be most prevalent. Employee retention demographics, specifically addressing what MLTs and MLAs are planning for the next 5 years are found in **Tables 33** and **Table 34**, respectively. Within the tables, the number of years the respondent plans to work in the same department or for the same organization are considered. In some instances, individuals have already moved on from their first department or organization by the time of the survey and are categorized as not applicable, “N/A”.

The largest groups for MLTs want to stay with the same department (41%) and organization (54%) for more than 5 years, which is consistent with the results obtained for the previous 3 years. The second largest grouping belongs to those who have already changed their department or organization and that’s also consistent with past results.

Table 33. MLT Retention Demographics

How long do you plan to stay employed by the first department you worked for after graduation?

	2018	2019	2020	2021
N/A	24.3%	25.3%	32.9%	25.0%
6 months	4.5%	6.3%	3.9%	0.7%
1 year	9.6%	6.8%	7.1%	5.1%
2 years	15.3%	13.7%	8.4%	15.4%
3 years	5.1%	4.7%	7.1%	7.4%
4 years	0.0%	1.6%	0.6%	2.2%
5 years	6.8%	4.7%	6.5%	2.9%
More than 5 years	34.5%	36.8%	33.5%	41.2%
	177	190	155	136

How long do you plan to stay employed by the first organization you worked for after graduation?

	2018	2019	2020	2021
N/A	13.0%	14.7%	11.0%	15.4%
6 months	4.0%	4.7%	3.2%	1.5%
1 year	10.2%	5.3%	5.8%	5.1%
2 years	11.3%	7.9%	6.5%	10.3%
3 years	5.1%	6.3%	7.7%	5.9%
4 years	1.7%	1.1%	1.9%	2.9%
5 years	4.5%	6.3%	6.5%	5.1%
More than 5 years	50.3%	53.7%	57.4%	53.7%
	177	190	155	136

The largest groups for MLAs want to stay with the same department (39%) and organization (45%) for more than 5 years, which is consistent with the results obtained for the previous 3 years. The second largest groupings for the 2021 cohort belong to those who have already changed their department or organization, which has increased in comparison to the previous years.

Table 34. MLA Retention Demographics

How long do you plan to stay employed by the first department you worked for after graduation?

	2018	2019	2020	2021
N/A	24.7%	15.9%	14.0%	35.3%
6 months	6.5%	4.8%	4.7%	3.9%
1 year	7.8%	17.5%	18.6%	3.9%
2 years	13.0%	9.5%	16.3%	9.8%
3 years	2.6%	4.8%	4.7%	2.0%
4 years	0.0%	0.0%	2.3%	0.0%
5 years	7.8%	1.6%	0.0%	5.9%
More than 5 years	37.7%	46.0%	39.5%	39.2%
	77	63	43	51

How long do you plan to stay employed by the first organization you worked for after graduation?

	2018	2019	2020	2021
N/A	17.9%	7.9%	9.3%	23.5%
6 months	7.7%	3.2%	2.3%	2.0%
1 year	3.8%	9.5%	14.0%	2.0%
2 years	9.0%	6.3%	4.7%	9.8%
3 years	3.8%	1.6%	4.7%	2.0%
4 years	1.3%	0.0%	4.7%	0.0%
5 years	6.4%	1.6%	7.0%	15.7%
More than 5 years	50.0%	69.8%	53.5%	45.1%
	78	63	43	51

Respondents Seeking a New Job:

Fewer 2021 MLTs were seeking a new job at the time of the survey (**Table 35**), a result which is consistent with the trend of the previous 4 years. For the 20% who are, their primary reasons are better compensation (17%) and benefits (15%). It's also noteworthy that wanting to work more hours and worrying about job loss, have both decreased by a fair margin in comparison to the previous years. See **Table 36** for a summary of results regarding the reasons MLTs are seeking new employment. The main reason (72%) MLTs are not seeking a new job, as indicated in **Table 37**, is primarily because they are satisfied with their current job.

Likewise, fewer 2021 MLAs were seeking a new job at the time of the survey (**Table 38**), a result which is consistent with the trend of the previous 4 years. For those who are, their primary reasons are better working conditions (16%) and compensation (14%). The results can be considered consistent with the previous years, though it is noteworthy that "Increased Stability" has now become the third most popular choice at 11%. See **Table 39** for a summary of results regarding the reasons MLAs are seeking new employment. The main reason (70%) MLAs are not seeking a new job, as indicated in **Table 40**, is also because they are satisfied with their current job.

Table 35. MLTs Seeking New Employment

	2017	2018	2019	2020	2021
Looking for work					
Total	32.6%	33.9%	29.9%	25.8%	20.3%
Already employed at certification level	24.6%	31.2%	26.9%	23.3%	18.8%
Not employed at certification level	3.8%	0.5%	1.0%	0.6%	0.0%
Unemployed	4.2%	2.1%	2.0%	1.8%	1.4%
Not looking for work					
Total	67.4%	66.1%	70.1%	74.2%	79.7%
Already employed at certification level	66.9%	65.1%	69.2%	73.6%	77.5%
Not employed at certification level	0.0%	0.0%	0.0%	0.0%	1.4%
Unemployed	0.4%	1.1%	1.0%	0.6%	0.7%
Response count	236	189	201	163	138

Table 36. MLT Reasons for Seeking New Employment

	2017	2018	2019	2020	2021
Benefits (health dental pension etc.)	6.9%	9.0%	12.9%	12.2%	14.9%
Better compensation	11.1%	9.9%	7.1%	7.5%	17.2%
Better working conditions	7.4%	11.2%	9.0%	12.2%	11.5%
Currently unemployed	-	-	-	-	1.1%
End of job/contract	6.9%	6.4%	6.7%	9.5%	3.4%
Increased stability	1.4%	3.4%	3.3%	1.4%	11.5%
Job closer to home	13.4%	9.9%	11.0%	10.2%	9.2%
Job at certification level	-	-	-	-	2.3%
Job in another region	7.9%	6.4%	5.2%	4.8%	5.7%
Job that fits better with qualifications/training	8.3%	6.4%	7.1%	4.8%	5.7%
More challenges or responsibilities	13.0%	13.3%	9.5%	9.5%	6.9%
More culturally diverse workplace	1.9%	3.9%	2.4%	2.0%	1.1%
Work fewer hours	1.4%	1.3%	1.9%	5.4%	3.4%
Work more hours	13.9%	12.4%	15.7%	10.2%	2.3%
Worried about losing current job	6.5%	6.4%	7.1%	8.8%	3.4%
Response Count	216	233	210	147	87

Table 37. MLT Reasons for Not Seeking New Employment

	2017	2018	2019	2020	2021
Alternate Career Path	0.0%	50.0%	0.0%	0.0%	4.5%
Personal circumstances / Family responsibilities	0.0%	0.0%	50.0%	100.0%	3.6%
Poor prospect of suitable employment	0.0%	0.0%	0.0%	0.0%	1.8%
Satisfied with current job	-	-	-	-	71.8%
Satisfied with current living environment	-	-	-	-	14.5%
Studying / Continuing Education	100.0%	50.0%	50.0%	0.0%	3.6%
Response count	1	2	2	1	110

Table 38. MLAs Seeking New Employment

	2017	2018	2019	2020	2021
Looking for work					
Total	58.6%	51.8%	47.8%	46.4%	44.8%
Already employed at certification level	30.0%	25.9%	21.7%	26.8%	26.9%
Not employed at certification level	6.4%	6.3%	5.4%	8.9%	4.5%
Unemployed	22.1%	19.6%	20.7%	10.7%	13.4%
Not looking for work					
Total	41.4%	48.2%	52.2%	53.6%	55.2%
Already employed at certification level	35.0%	43.8%	45.7%	50.0%	49.3%
Not employed at certification level	2.9%	2.7%	4.3%	0.0%	4.5%
Unemployed	3.6%	1.8%	2.2%	3.6%	1.5%
Response count	140	112	92	56	67

Table 39. MLA Reasons for Seeking New Employment

	2017	2018	2019	2020	2021
Benefits (health dental pension etc.)	10.2%	15.0%	19.5%	10.2%	8.9%
Better compensation	17.5%	17.8%	13.0%	16.9%	14.4%
Better working conditions	9.0%	9.3%	6.5%	10.2%	15.6%
Currently unemployed	-	-	-	-	4.4%
End of job/contract	2.4%	0.9%	3.9%	6.8%	2.2%
Increased stability	0.6%	0.0%	0.0%	0.0%	11.1%
Job closer to home	9.0%	8.4%	6.5%	15.3%	5.6%
Job at certification level	-	-	-	-	7.8%
Job in another region	2.4%	0.9%	3.9%	5.1%	1.1%
More challenges or responsibilities	14.5%	11.2%	15.6%	8.5%	10.0%
More culturally diverse workplace	1.8%	0.9%	1.3%	1.7%	3.3%
Want a job that's a better fit to qualifications	9.0%	12.1%	7.8%	6.8%	0.0%
Work fewer hours	1.2%	0.9%	1.3%	1.7%	0.0%
Work more hours	16.3%	19.6%	19.5%	8.5%	8.9%
Worried about losing current job	4.2%	2.8%	1.3%	8.5%	6.7%
Response count	166	107	77	59	90

Table 40. MLA Reasons for Not Seeking New Employment

	2017	2018	2019	2020	2021
Alternate Career Path	0.0%	0.0%	60.0%	0.0%	10.8%
Personal circumstances / Family responsibilities	40.0%	33.3%	40.0%	50.0%	8.1%
Poor prospect of suitable employment	0.0%	33.3%	0.0%	0.0%	0.0%
Satisfied with current job	-	-	-	-	70.3%
Satisfied with current living environment	-	-	-	-	2.7%
Studying / Continuing Education	60.0%	33.3%	0.0%	50.0%	8.1%
Response count	5	3	5	2	37

8. MLP Satisfaction - One-year post certification

General Satisfaction Assessment Method:

To determine the overall satisfaction score experienced by the current year's MLPs, the percentage of respondents who either somewhat or strongly agreed with the questions #1-9 in **Table 41** were combined. The sums were then averaged to determine the overall satisfaction and compared to previous years scores. The assessment system is based on a 5-point Likert scale for each question; 'Strongly Disagree, Somewhat Disagree, Neutral, Somewhat Agree and Strongly Agree'.

Additional questions shaded in grey, #10-15, are also included in the satisfaction assessment but are omitted from the calculation itself because agreement or disagreement does not correlate with a quantifiable satisfaction metric. However, these topics are relevant to employment trends and are still examined independently.

Table 41. General Satisfaction Questions

#	General Satisfaction Criteria
1	The job meets my expectations.
2	My employer's expectations of me are at the right level.
3	Guidance is available when I need it.
4	I did not feel any pressure to accept a job in my training site.
5	I have the job I wanted.
6	I work in the discipline I wanted.
7	Considering my experience, education and training, I am satisfied with my job.
8	If given the chance, I would choose this career again.
9	I live in the city/town I wanted.
10	I prefer to work part-time.
11	Shift work was not a factor in my choosing my job.
12	I would move to another province for a job.
13	I would move to a rural community for a job.
14	I would move to another country for another job.
15	I believe a degree is required for career promotion.

MLT Satisfaction:

The overall satisfaction score for MLTs was 81% for the current year and is slightly lower than the 5-year average (**Table 42**). In fact, all criteria considered in the general satisfaction calculation were ranked lower than average values. “My employer’s expectations of me are at the right level”, currently with a score of 81%, has experienced the largest decline in approval in comparison to its 5-year average and continued its trend to lower values. This is a curious result considering, in particular, the retention demographics in Section 7 are consistent with previous years.

MLA Satisfaction:

The overall satisfaction score for MLAs was 77% for the current year and is slightly lower than the 5-year average (**Table 43**). Similarly, to MLTs, all criteria considered in the general satisfaction calculation were ranked lower than average values. “Considering my experience, education and training, I am satisfied with my job.” and “If given the chance, I would choose this career again.”, at 62% and 60% respectively for the current year, have experienced the largest decline in approval in comparison to their 5-year averages.

Table 42. MLT Job Satisfaction

	2017	2018	2019	2020	2021	Ave.	Δ
General Satisfaction	87.4%	83.8%	85.1%	84.7%	80.6%	84.3%	-3.7%
The job meets my expectations.	94.2%	88.6%	92.5%	90.3%	86.7%	90.5%	-3.8%
My employer's expectations of me are at the right level.	88.9%	92.2%	90.9%	88.4%	80.8%	88.3%	-7.4%
Guidance is available when I need it.	89.5%	89.2%	88.8%	89.7%	87.5%	88.9%	-1.4%
I did not feel any pressure to accept a job in my training site.	80.0%	76.0%	73.8%	67.1%	68.3%	73.1%	-4.7%
I have the job I wanted.	83.7%	80.2%	81.8%	85.8%	76.7%	81.6%	-5.0%
I work in the discipline I wanted.	83.2%	79.6%	79.1%	85.2%	80.0%	81.4%	-1.4%
Considering my experience, education and training, I am satisfied with my job.	91.1%	82.6%	86.1%	87.7%	82.5%	86.0%	-3.5%
If given the chance, I would choose this career again.	88.9%	81.4%	87.7%	83.2%	77.5%	83.8%	-6.3%
I live in the city/town I wanted.	-	-	-	-	85.0%	85.0%	0.0%
I prefer to work part-time.	25.3%	22.2%	24.1%	27.1%	21.7%	24.0%	-2.4%
Shift work was not a factor in my choosing my job.	54.7%	48.5%	54.0%	51.0%	45.8%	50.8%	-5.0%
I would move to another province for a job.	-	-	-	-	42.5%	42.5%	0.0%
I would move to a rural community for a job.	33.7%	31.1%	31.6%	24.5%	25.8%	29.3%	-3.5%
I would move to another country for another job.	23.2%	18.6%	21.9%	16.1%	18.3%	19.6%	-1.3%
I believe a degree is required for career promotion.	56.8%	50.9%	51.9%	57.4%	48.3%	53.1%	-4.7%
Response count	190	167	187	155	120		

Table 43. MLA Job Satisfaction

	2017	2018	2019	2020	2021	Ave.	Δ
General Satisfaction	77.2%	79.4%	79.2%	81.3%	69.2%	77.3%	-8.0%
The job meets my expectations.	82.4%	84.2%	84.7%	83.3%	75.4%	82.0%	-6.6%
My employer's expectations of me are at the right level.	88.2%	86.8%	81.4%	81.0%	75.4%	82.6%	-7.2%
Guidance is available when I need it.	84.7%	82.9%	86.4%	90.5%	73.8%	83.7%	-9.8%
I did not feel any pressure to accept a job in my training site.	77.6%	77.6%	71.2%	71.4%	72.3%	74.0%	-1.7%
I have the job I wanted.	71.8%	76.3%	72.9%	73.8%	64.6%	71.9%	-7.3%
I work in the discipline I wanted.	71.8%	77.6%	76.3%	81.0%	67.7%	74.9%	-7.2%
Considering my experience, education and training, I am satisfied with my job.	68.2%	78.9%	83.1%	83.3%	61.5%	75.0%	-13.5%
If given the chance, I would choose this career again.	72.9%	71.1%	78.0%	85.7%	60.0%	73.5%	-13.5%
I live in the city/town I wanted.	-	-	-	-	72.3%	72.3%	0.0%
I prefer to work part-time.	20.0%	28.9%	22.0%	40.5%	20.0%	26.3%	-6.3%
Shift work was not a factor in my choosing my job.	62.4%	38.2%	45.8%	57.1%	41.5%	49.0%	-7.5%
I would move to another province for a job.	-	-	-	-	35.4%	35.4%	0.0%
I would move to a rural community for a job.	34.1%	39.5%	44.1%	31.0%	33.8%	36.5%	-2.6%
I would move to another country for another job.	16.5%	11.8%	22.0%	19.0%	23.1%	18.5%	4.6%
I believe a degree is required for career promotion.	51.8%	50.0%	59.3%	64.3%	46.2%	54.3%	-8.2%
Response count	85	76	59	42	65		