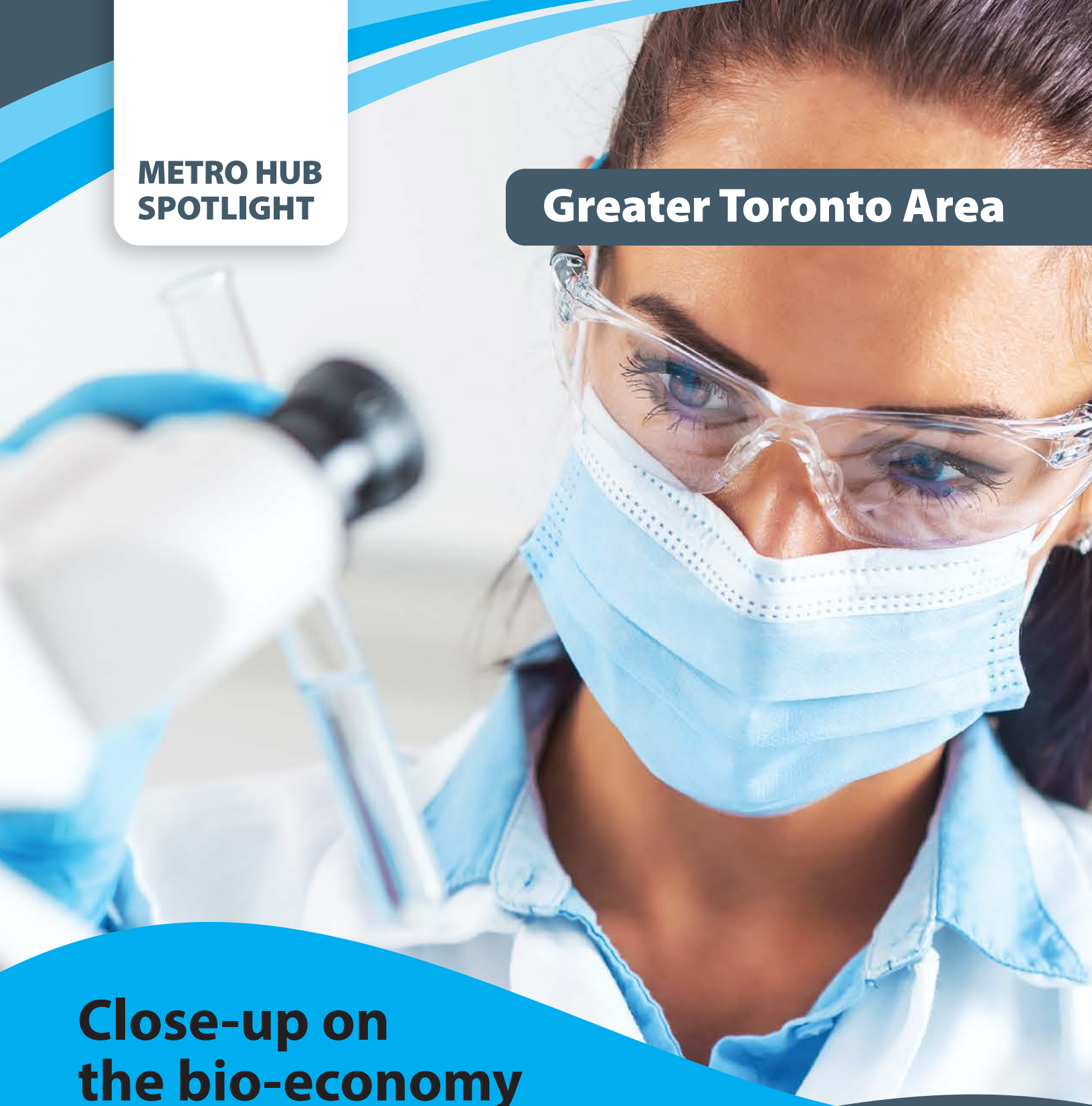
METRO HUB SPOTLIGHT

Greater Toronto Area



Close-up on the bio-economy

LABOUR MARKET INTELLIGENCE

BioTalent™ Canada

Igniting the bio-economy's brainpower

BioTalent Canada

BioTalent Canada supports the people behind life-changing science. Trusted as the go-to source for labour market intelligence, we guide bio-economy stakeholders with evidence-based data and industry-driven standards. We are focused on igniting the industry's brainpower, bridging the gap between job-ready talent and employers, and ensuring the long-term agility, resiliency and sustainability of one of Canada's most vital sectors.

Recently named one of the 50 Best Workplaces in Canada with 10–50 employees and awarded a Great Place to Work® Certification 2021, BioTalent Canada practices the same industry standards it recommends to its stakeholders. These distinctions were awarded to BioTalent Canada following a thorough and independent analysis conducted by Great Place to Work®.

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BioTalent Canada's 2021 series of labour market intelligence (LMI) reports, *Close-up on the bio-economy*,[1] aims to provide the perspective bio-economy organizations need to find, recruit, train and retain talented teams based on a real, meaningful understanding of the labour market. For the first time, the data offers deeper insights into the labour market conditions specific to individual metro hub regions within Canada. This report looks at the conditions in the **Greater Toronto Area (GTA)**.[2] Because of the small sample size for this spotlight, caution should be used when comparing to national data or data from other regions.

1 *The series includes a national LMI report, a demand and supply outlook, five regional spotlights, three metro hub spotlights and a number of additional research briefs.*

2 *The GTA includes the municipalities of Ajax, Aurora, Brampton, Bradford West Gwillimbury, Caledon, East Gwillimbury, Georgina, Georgina Island, Halton Hills, King, Markham, Milton, Mississauga, Newmarket, Oakville, Pickering, Richmond Hill, Toronto, Uxbridge, Vaughan and Whitchurch-Stouffville.*

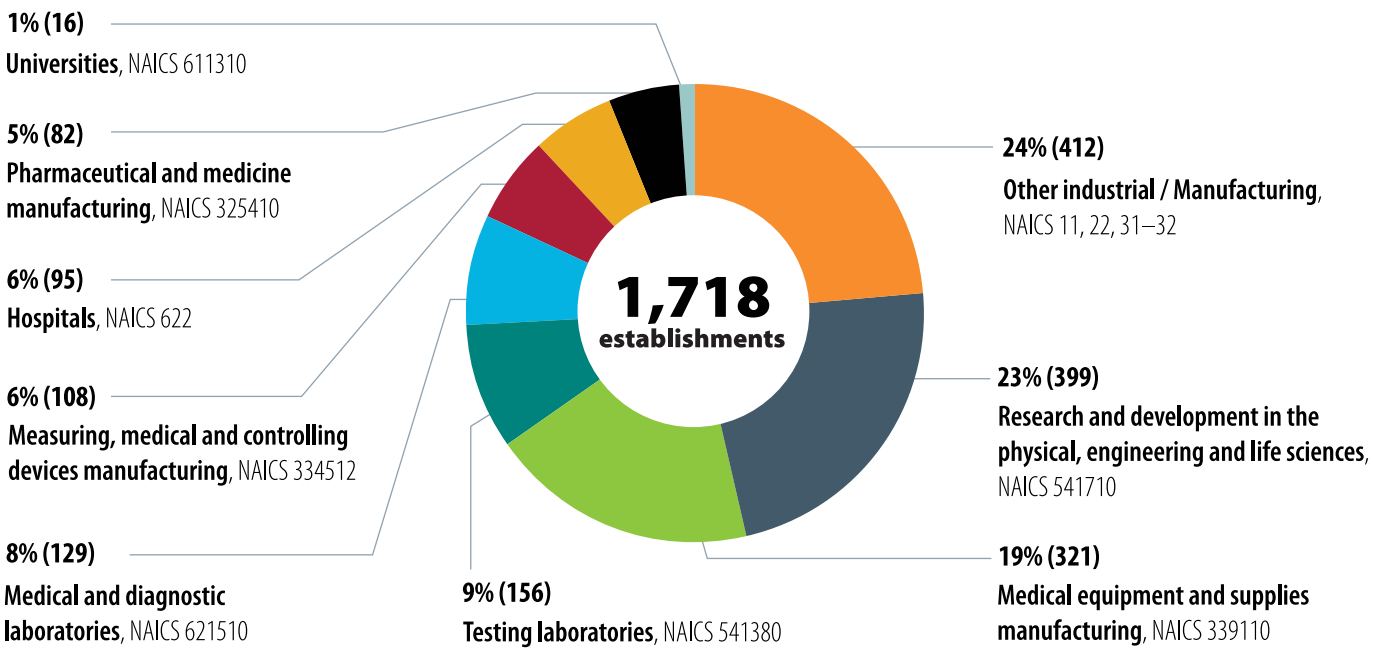
Who's in the GTA bio-economy?

The GTA bio-economy contains some **1,700 organizations**, which collectively employed around **38,000 people** in 2019 in a wide range of functions, from researchers to distribution and logistics managers.

Employers in profile

Small and medium-sized companies dominate. More than half (54%) have been in business fewer than 15 years. According to the North American Industry Classification System (NAICS), organizations dedicated to other industrial and manufacturing (NAICS 11, 22, 31–32) make up one-quarter (24%) of the GTA bio-economy.

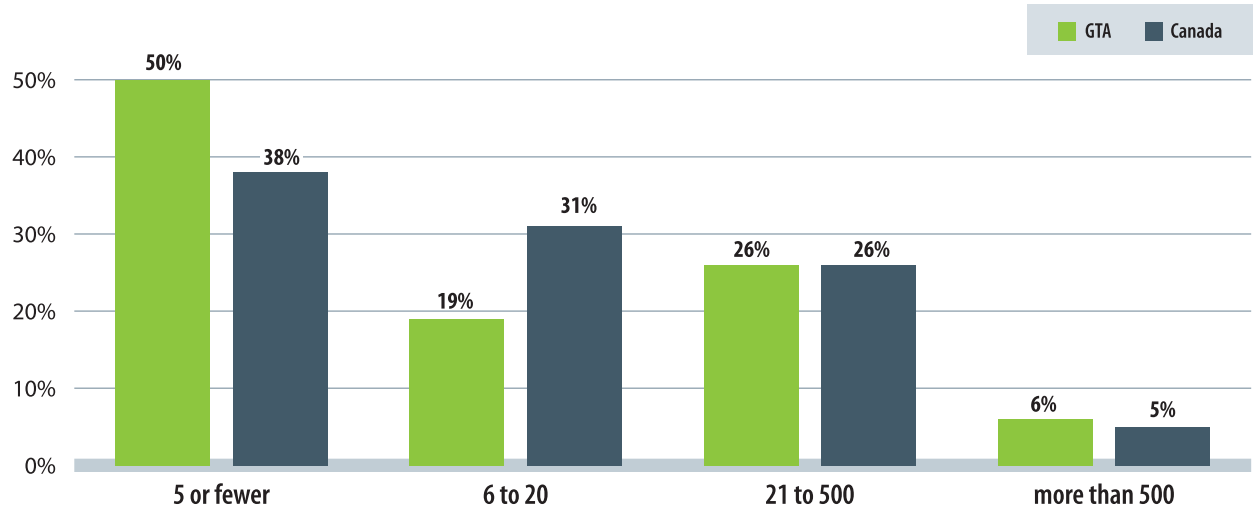
FIGURE 1. Bio-economy establishments by NAICS industrial sector, GTA



Note: Percentages may not add up to 100% due to rounding.
Source: BioTalent Canada Modeling and Projections (2020)

50% have 5 or fewer full-time employees.

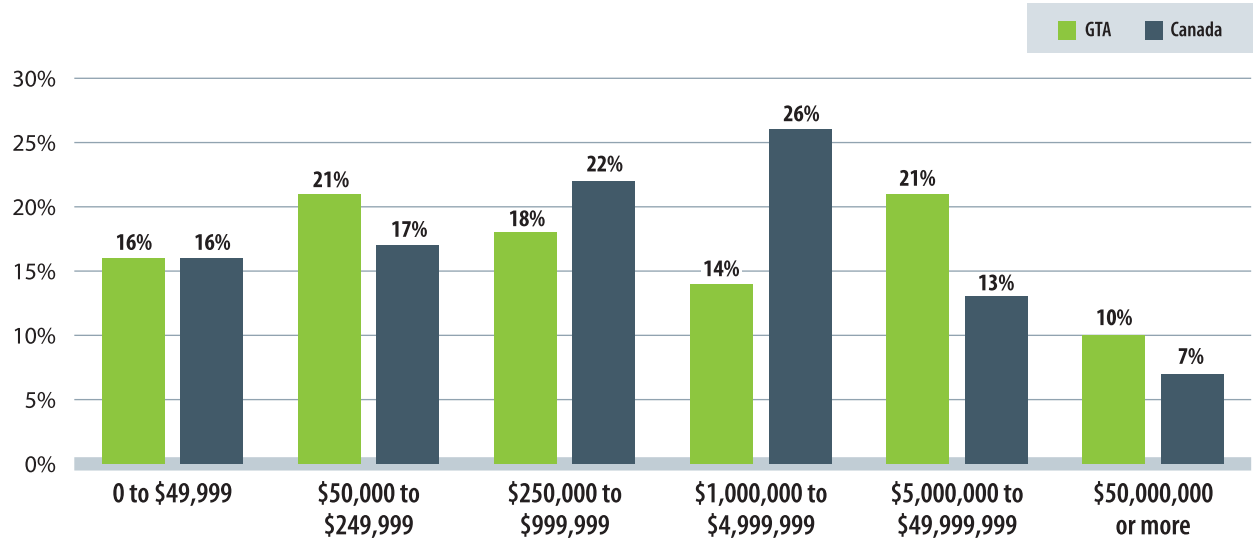
FIGURE 2. Bio-economy companies by full-time employees, GTA vs. national



Source: BioTalent Canada, Survey of Employers 2020

More than half have annual total gross revenues under $1 million.

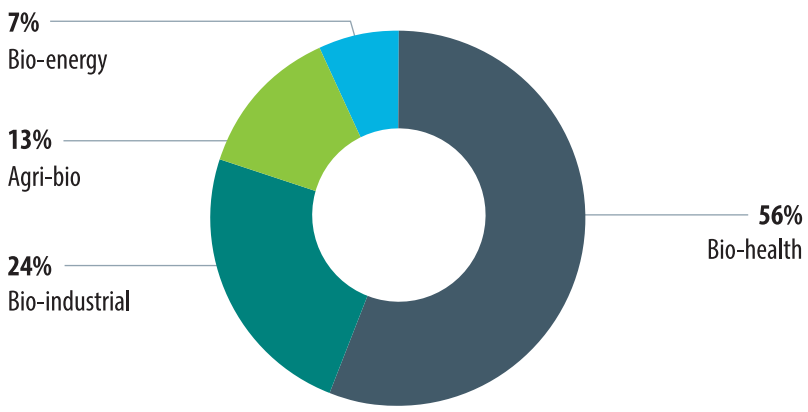
FIGURE 3. Bio-economy companies by annual total gross revenue, GTA vs. national



Source: BioTalent Canada, Survey of Employers 2020

Bio-health is the largest sub-sector in the GTA.

FIGURE 4. Companies by primary sub-sector, GTA



Source: BioTalent Canada, Survey of Employers 2020

Workers in profile

R&D and manufacturing account for nearly half of bio-economy jobs in the GTA. Compared to the national profile, the GTA bio-economy employs a higher proportion of visible minorities (an average of 35%).

TABLE 1. Employment by job category and sub-sector, GTA

Job category	Total	Agri-bio	Bio-energy	Bio-health	Bio-industrial
Research and development	**27%**	34%	33%	28%	20%
Manufacturing and production	**21%**	22%	31%	15%	35%
Management, finance and administration	**14%**	13%	14%	14%	13%
Distribution and logistics	**6%**	6%	5%	6%	6%
Quality control and quality assurance	**6%**	6%	3%	6%	6%
Marketing, business development and sales	**5%**	7%	3%	6%	5%
Information technology	**4%**	3%	1%	4%	2%
Legal and regulatory affairs	**2%**	1%	1%	3%	1%
Other	**16%**	8%	8%	18%	13%

Source: BioTalent Canada Modeling and Projections (2020)

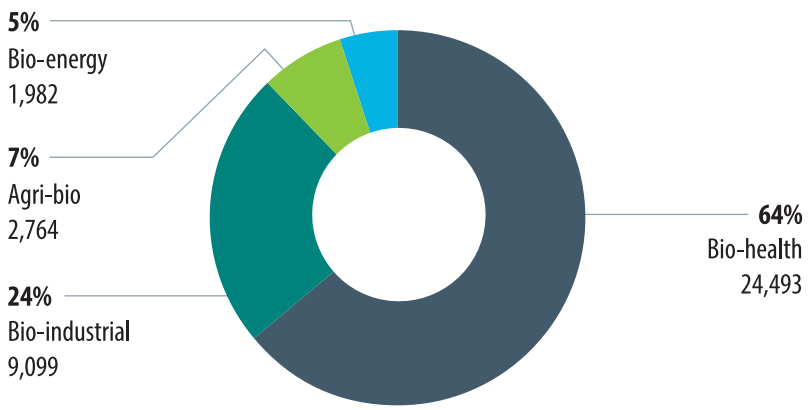
TABLE 2. Top five industries by NAICS code and estimated employment, GTA

Industry	Bio-economy employment	Share of total bio-economy employment
Pharmaceutical and medicine manufacturing (NAICS 3254)	10,660	28%
Soap, cleaning compound and toilet preparation manufacturing (NAICS 3256)	4,350	11%
Hospitals (NAICS 6220)	3,940	10%
Medical equipment and supplies manufacturing (NAICS 339110)	3,730	10%
R&D in physical, engineering and life sciences (NAICS 541710)	3,680	10%
Other	11,980	31%
Total	**38,340**	**100%**

Source: BioTalent Canada Modeling and Projections (2020)

Nearly ⅔ of all employees work in bio-health and ¼ work in the bio-industrial sub-sector.

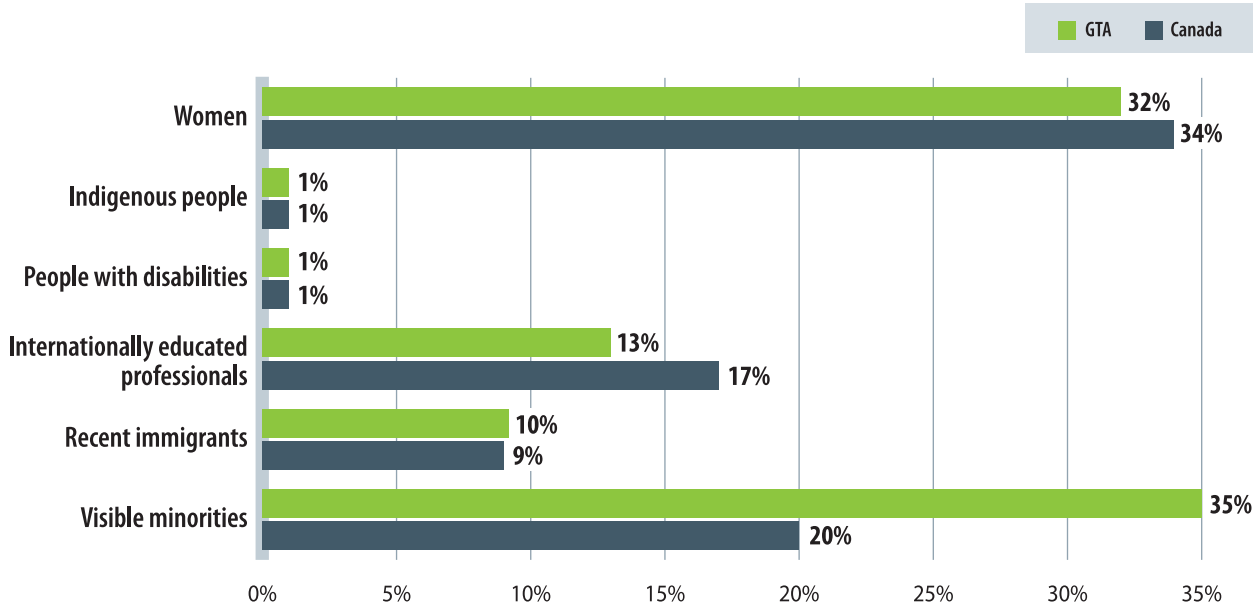
FIGURE 5. Bio-economy employment estimates by sub-sector, GTA



Source: BioTalent Canada Modeling and Projections (2020)

Even with a high proportion of visible minorities, the GTA bio-economy could still be more diverse.

FIGURE 6. Workers by equity-seeking group status, GTA vs. national



Source: BioTalent Canada, Survey of Employers 2020

GTA labour market outlook

By the end of the decade, the GTA bio-economy will need an **additional 14,300 workers**, for a total workforce of **approximately 45,000 people**. Despite a 7% contraction in the GTA's overall 2020 GDP caused by COVID-19, the economy is expected to rebound within the short term and return to normal growth levels for the medium/longer term.[3] Most additional workers will be needed to meet replacement demand.[4] R&D, manufacturing and management roles are among the top three areas where GTA employers in all four bio-economy sub-sectors need to hire (Tables 3 and 4).

TABLE 3. 2029 hiring requirements by sub-sector, GTA

Sub-sector	Workers needed	Demand type	Key roles
Bio-health	9,000	Mostly replacement	▸ R&D (23%) ▸ Manufacturing (18%) ▸ Management, finance and administration (17%)
Bio-industrial	4,100	Nearly half expansion until 2027	▸ Manufacturing (34%) ▸ R&D (15%) ▸ Management, finance and administration (15%)
Agri-bio	670	Mostly replacement	▸ R&D (24%) ▸ Manufacturing (23%) ▸ Management, finance and administration (14%)
Bio-energy	390	Virtually all replacement	▸ Manufacturing (41%) ▸ R&D (23%) ▸ Management, finance and administration (18%)

Source: BioTalent Canada Modeling and Projections (2020)

3 *This study considered three time periods for its economic forecasts: immediate (to explore pandemic-related changes between 2019 and 2020), short term (2021 to 2024) and medium/longer term (2025 to 2029).*

4 *Replacement demand refers to the need to hire workers to replace retirees or individuals leaving the workforce for other reasons. Expansion demand refers to the need to hire workers for net-new positions.*

TABLE 4. Bio-economy hiring requirements by job function, GTA

Job function	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total	%
Manufacturing and production	150	430	480	410	240	430	420	400	400	**3,360**	24%
Research and development	(-30)	360	400	350	100	430	450	450	460	**2,970**	21%
Management, finance and administration	200	280	310	270	120	300	300	290	300	**2,370**	17%
Distribution and logistics	60	120	130	100	30	130	130	120	120	**940**	7%
Marketing, business development and sales	60	100	110	90	30	110	100	100	100	**800**	6%
Quality control and assurance	10	100	110	90	30	110	120	110	120	**800**	6%
Information technology	30	50	60	50	<10	70	70	70	70	**470**	3%
Legal and regulatory affairs	30	30	30	30	10	30	40	40	40	**280**	2%
Other	<10	270	300	280	160	310	320	320	320	**2,280**	16%
Total	**510**	**1,740**	**1,930**	**1,670**	**720**	**1,920**	**1,950**	**1,900**	**1,930**	**14,270**	**100%**

Note: Numbers have been rounded.

Source: BioTalent Canada Modeling and Projections (2020)

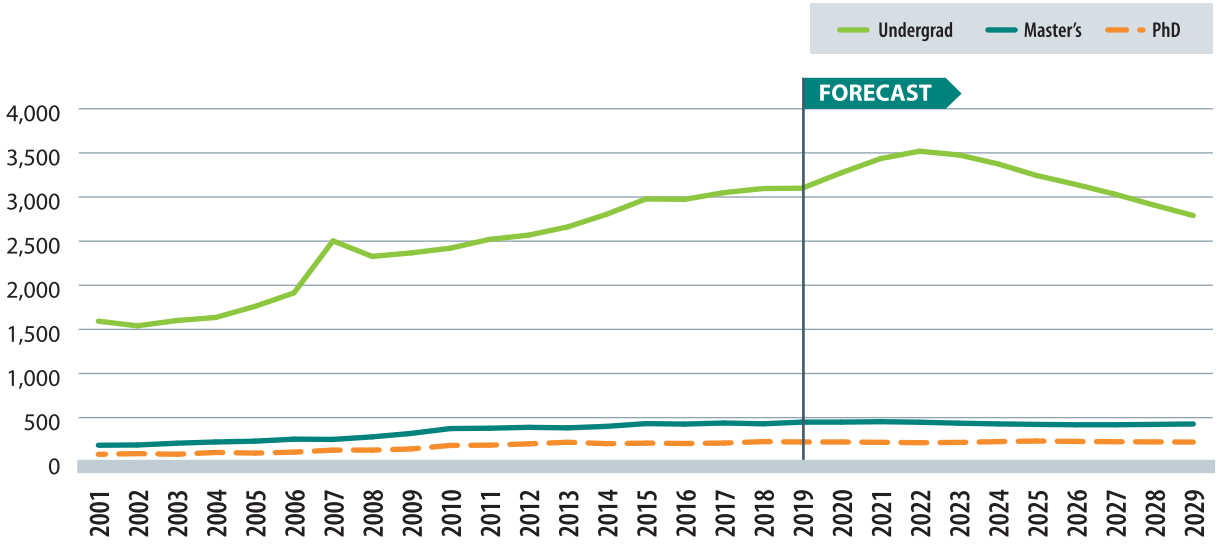
Meeting demand

The youth share of the population,[5] historically critical to the labour supply, has been steadily declining since 2000 and is expected to continue to fall. At the same time, the share aged 55 years and older continues to rise, leading to an imbalance where there are not enough youth entering the workforce to replace those retiring. As a result, GTA bio-economy companies will have to **recruit more heavily from under-tapped talent pools**, including recent immigrants and internationally educated professionals. A large proportion of immigrants to Canada settle in big urban centres like the GTA, and many have relevant post-secondary education or are students in relevant fields.

New talent pools will be important because **domestic enrolments in bio-economy-related post-secondary programs are expected to decrease** in the long term despite a short-term rise over the forecast period (beginning in 2019). Growing enrolments by international students at GTA institutions may help mitigate some of the domestic losses.

5 *The definition of "youth" varies depending on the source. While BioTalent Canada defines "youth" as under 30, the source data for this report defines youth as under 25.*

FIGURE 7. Domestic degree completions by study level, GTA

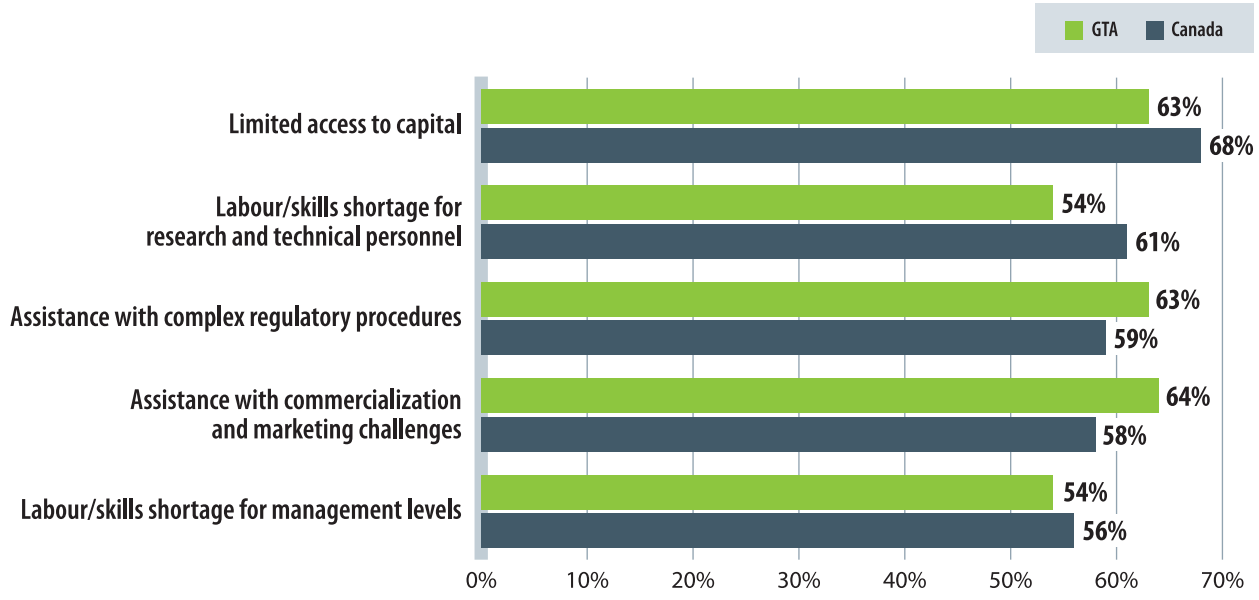


Source: PSIS Custom Request and Prism Economics Forecast

HR challenges in the GTA

HR-related obstacles impede bio-economy company development.

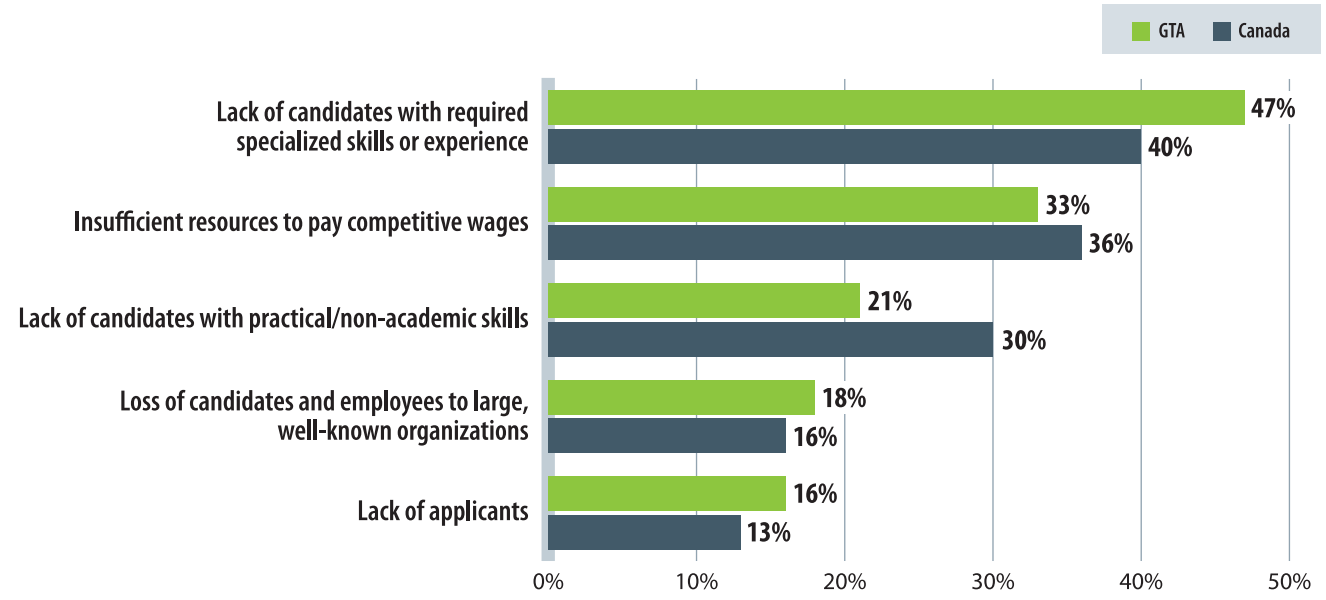
FIGURE 8. Obstacles to company development, GTA vs. national



Source: BioTalent Canada, Survey of Employers 2020

Almost half of employers cite a lack of qualified candidates as a top HR challenge.

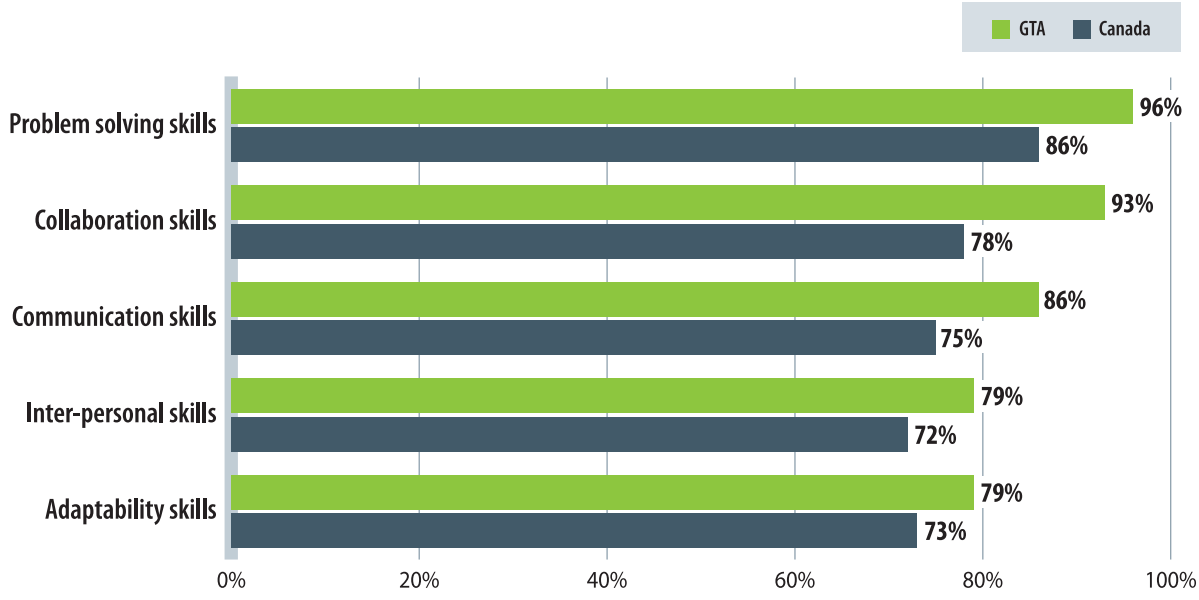
FIGURE 9. Top HR challenges for the bio-economy, GTA vs. national



Source: BioTalent Canada, Survey of Employers 2020

Problem-solving skills are key.

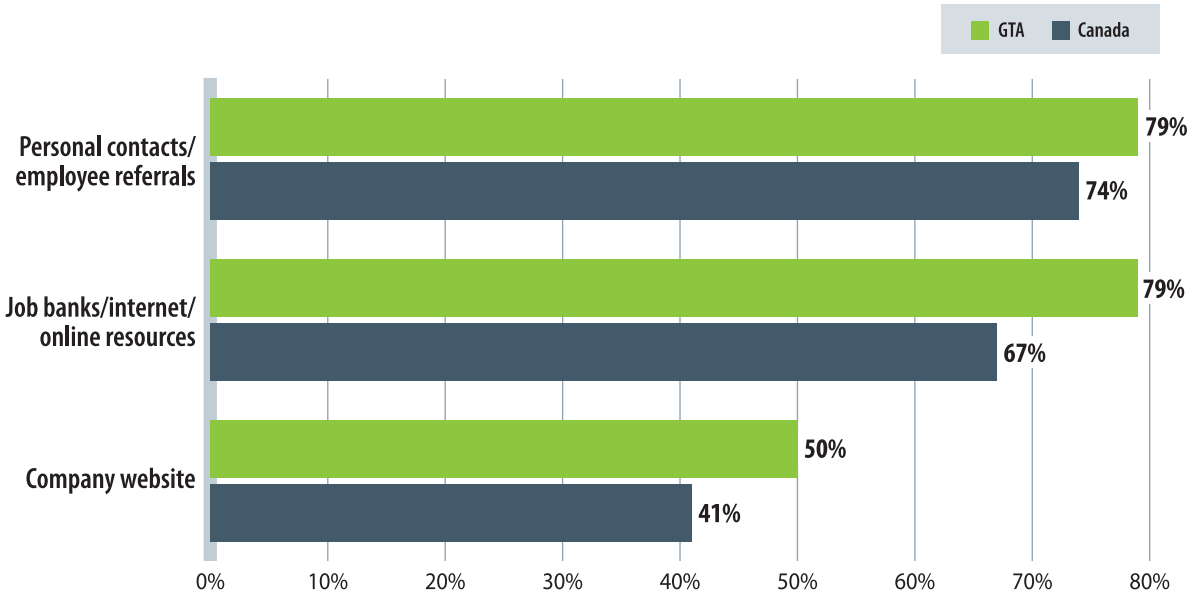
FIGURE 10. "Very important" skills for the bio-economy, GTA vs. national



Source: BioTalent Canada, Survey of Employers 2020

Recruitment through personal contacts may make it harder to reach and hire from a diverse talent pool.

FIGURE 11. Recruitment approaches, GTA vs. national



Source: BioTalent Canada, Survey of Employers 2020

Path forward

The GTA is Canada's largest metropolitan area by population and one of Canada's major industrial hubs. Ontario shows a high level of sub-regional labour force mobility, with many people commuting into and out of the GTA from elsewhere in the province. However, COVID-19 restrictions in 2020 and 2021 led to a greater number of people moving out of the area, and it remains to be seen whether that trend will continue and how it might affect the area's labour supply.

Many companies in the GTA bio-economy have the potential for significant growth but are hindered by a lack of skilled talent with commercialization and marketing knowledge. A good number are already struggling to fill roles, particularly in manufacturing and production; R&D; and management, finance and administration. These challenges are expected to worsen throughout the decade, driven largely by the need to replace those retiring or leaving the workforce for other reasons.

To meet their talent needs, they will have to change their approaches to recruitment, training and other HR practices, reaching more diverse talent pools and seeking out candidates with backgrounds not traditionally associated with the bio-economy. See our national LMI report and related products for more on Canada's bio-economy labour market, including recommendations on how to meet sector needs going forward.

A total of 57 companies from the GTA bio-economy participated in the surveys informing this report. The margin of error with this sample size is approximately +/-13%, 19 times out of 20. For this reason, caution is recommended when interpreting the results of this survey.

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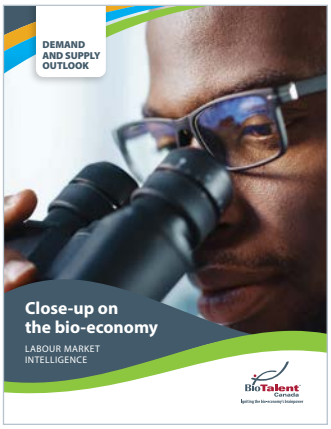
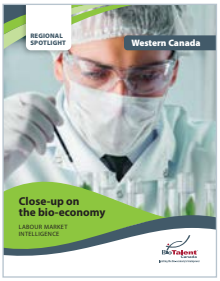
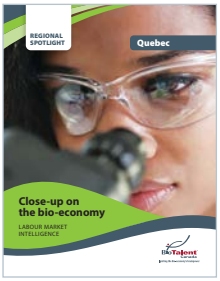
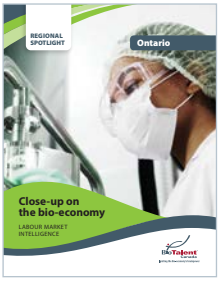
- Research briefs on topics such as bio-economy education and work-integrated learning

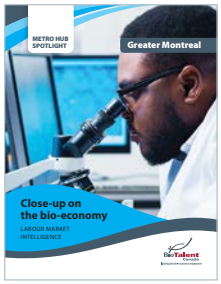
Visit biotalent.ca/LMIStudy to download these and other LMI reports, briefs and articles.

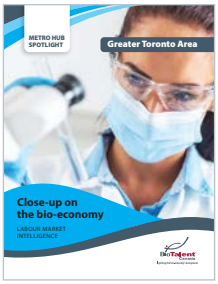












Research partners

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- Prism Economics & Analysis Inc.
- EKOS Research Associates Inc.
- Ipsos

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