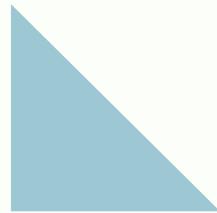


2021

Fredericton Area IT Survey

Greater Fredericton
Social Innovation



Land Acknowledgement

We would like to acknowledge that the work of Greater Fredericton Social Innovation (GFSI) takes place on the traditional unceded territory of the Wolastoqiyik / Maliseet and Mi'kmaq Peoples. This territory is covered by the Peace and Friendship Treaties, first signed in 1725, and does not surrender the lands and resources. The Peace and Friendship Treaties recognized Mi'kmaq and Wolastoqiyik / Maliseet title to this territory and established an agreement to an ongoing relationship between nations.

This acknowledgement is followed by action, by ensuring that both the stewardship of GFSI includes representation and collaborations with the Wolastoqiyik Peoples in our community

Solidarity Statement

The Board of Directors of Greater Fredericton Social Innovation (GFSI) denounce systemic injustice in all its forms in Canada and abroad. Systemic injustice includes racism and gender discrimination.

GFSI has been working since 2009 to alleviate poverty in the community of Greater Fredericton by providing social planning in partnership with various agencies and stakeholder groups to advance comprehensive community strategies guided by research and community-defined goals. As an organization deeply connected with the Fredericton community, we recognize the widespread and intersecting structural barriers that intensify the realities of poverty. For example, research and analysis are conclusive: women and people of colour face additional barriers because of gender and the colour of their skin and this reality should be addressed by any organization seeking to relieve poverty.

Recent events draw attention to the responsibility of community agencies including GFSI to ensure their work addresses, through action and advocacy, systemic injustice. GFSI recognizes that much of this work requires listening to members of these impacted communities and identifying and acting on how we as individuals and as an organization can strengthen our advocacy.

We are proud to act locally to support the ongoing efforts of individuals and organizations in Canada and abroad who struggle for equality and justice. We will be vigilant in exploring how we can further strengthen our awareness and activity to confront systemic injustice in all its manifestations.



Executive Summary

The Fredericton Area IT survey was conducted by Greater Fredericton Social innovation in partnership with the Atlantic Canadian Opportunities Agency. The purpose of this report is to provide an overview of the Fredericton Area IT sector, including demographic and sector information, along with more detailed information on the experience of New Canadians / immigrants.

Our findings show that the largest age demographic of survey respondents is 40-49, the majority identify as male, and are married or in a common law relationship. The majority of respondents are educated with a university undergraduate, graduate degree, or college diploma/certificate and are employed in the IT sector. The most common fields of specializations are Software Engineering / Development, Project Management, and Information Technology / Cybersecurity and 51.1% of respondents have an annual salary over \$75,000. 54.3% of respondents are new to the Fredericton area within the last 10 years, and 45.7% of respondents identifying as a New Canadian / Immigrant. 50.6% identify as a visible minority and the majority speak two or more languages, with a total of 23 languages spoken across all respondents.

Barriers to employment for New Canadians included racial discrimination in hiring processes, lack of experience in hosting New Canadians, and non-transferable credentials. These barriers were reflected in lower income ranges and the amount of time it took to find employment in the Fredericton area.

Other areas of interest include commonly defined soft and technical skills for success in the sector, the services that helped respondents find employment in the Fredericton area, and what to expect in the next 5 years for the retention of our IT sector.



Who We Are



Greater Fredericton Social Innovation is a registered non-profit organization that focuses on civic engagement and collaboration that benefits our community. We facilitate social planning to advance comprehensive community strategies guided by research, analysis and community defined goals.

These strategies ultimately impact our community from a number of perspectives including social, wellness and economic. GFSI is a network of concerned organizations, agencies and individuals working cooperatively and collaboratively to make Fredericton and its environs the best possible community in which to live, work, raise families and play. GFSI is a critical piece of social and developmental infrastructure in our community.



Civic Tech Fredericton creates technical solutions to social issues, serving as the connective tissue between citizens, non-profit organizations, government innovators and the tech community. We facilitate knowledge sharing and work collaboratively to build the digital tools.

The national civic tech movement is supported by Code For Canada, which serves as a platform and resource hub for civic tech organizers across the country. Civic Tech communities across North America unites policymakers, technologists, designers, public servants and engaged residents together to learn from one another and make their communities better places to live.

Acknowledgements



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**Atlantic Canada
Opportunities
Agency**

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Appendix A: Detailed Survey Responses & Results

Introduction

Purpose and scope of the report

The Fredericton area IT survey was conducted by Greater Fredericton Social innovation in partnership with the Atlantic Canadian Opportunities Agency. Student Consultants from the University of New Brunswick's Renaissance College conducted a literature review for the development of an asset map, determining the needs of this sector, annual salaries, education, years of experience, etc.

The purpose of this report is to provide an overview of the Fredericton area IT sector along with more detailed information on the experience of New Canadians / immigrant in Fredericton's IT sector. Findings from our literature review on this topic revealed three distinct barriers that are negatively impacting New Canadians / immigrants seeking employment in the IT sector. These barriers include:

1. A lack of Canadian experience in the workplace (Bauder, 2003)
2. Non-transferable credentials or education (Bauder, 2003), and
3. Racial discrimination in hiring practices (Maitra, 2014)

When conducting the initial literature review, there were limited articles presenting research regarding skilled immigrant workers in Atlantic Canadian provinces. This report will begin to fill this gap and hopefully prompt future research in the field.

The survey was distributed to IT-based organizations in the greater Fredericton area and shared on social media channels such as LinkedIn and Twitter. Of roughly 300 contacts engaged, 107 IT sector professionals completed the survey. This report outlines who completed the survey and provides an overview of findings, which will include skills for success, employment opportunities, barriers to employment, and retention of our IT sector.



IT Survey Results

Who Completed the Survey

The largest age demographic of survey respondents is 40-49, the majority identify as male, and are married or in a common law relationship. The majority of respondents are educated with a university undergraduate, graduate degree, or college diploma/certificate and are employed in the IT sector. The most common fields of specializations are Software Engineering / Development, Project Management, and Information Technology / Cybersecurity and 51.1% of respondents have an annual salary over \$75,000. 54.3% of respondents are new to the Fredericton area within the last 10 years, and 45.7% of respondents identifying as a New Canadian / Immigrant. 50.6% identify as a visible minority and the majority speak two or more languages, with a total of 23 languages spoken across all respondents.

Gender



75% identify as male

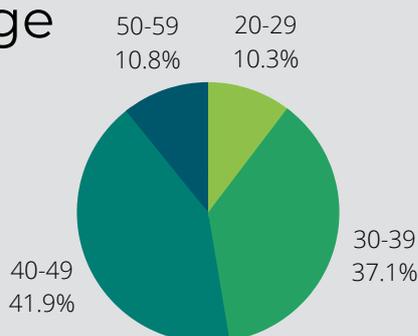


23.1% identify as female



1.9% identified as non-binary / gender diverse or prefer not to say

Age

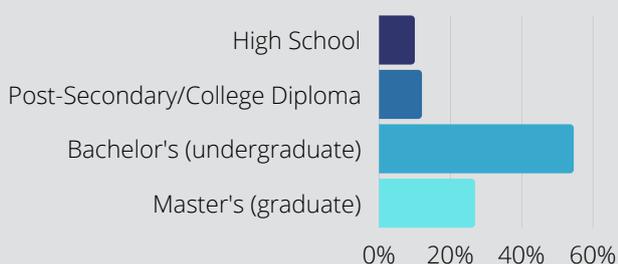


Marital Status



75% are married or common law

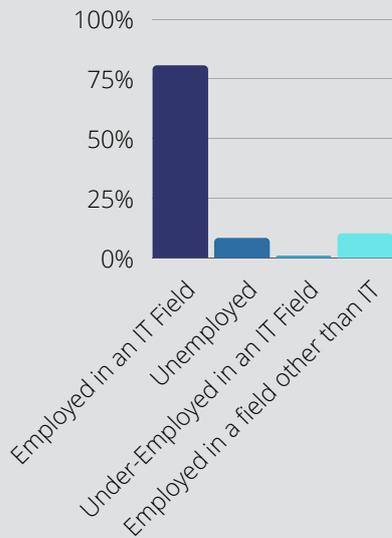
Education



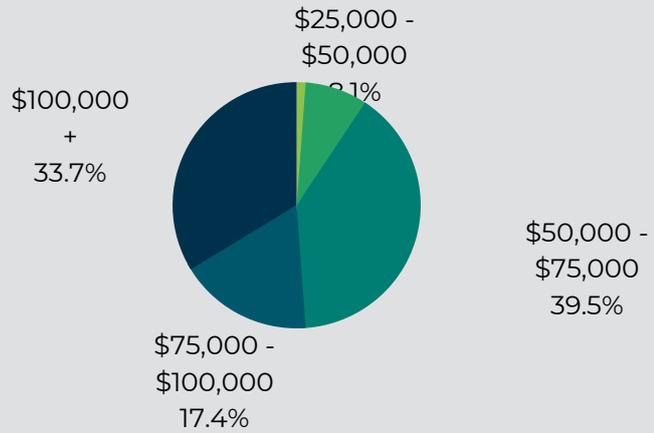
Fields of Specialization

- System Administration / Analysis
- Quality Assurance
- Design (Visual / UX)
- Project Management
- System and Network Configuration
- Software Engineering / Development
- Information Security / Cybersecurity
- Business Analysis
- Data Management

Employment



Income



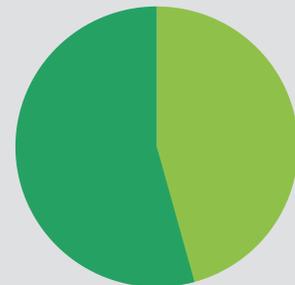
Newcomers



54.3% are new to the Fredericton area within the last 10 years

Are you a New Canadian or Canadian Immigrant:

No
54.3
%



Yes
45.7
%

Language

67.7% speak **2+** languages

The languages that our 107 respondents speak and write are a combination of 23 languages:

English	Urdu	Portuguese
French	Tamil	Visayan
Arabic	Telugu	Afrikaans
Mandarin	Gujarati	Bangla
Filipino	Marath	German
Russian	Tagalog	Bengali
Spanish	Hindi	Vietnamese
Yoruba		

Visible Minority



50.6% identify as a visible minority

46.2% identified as not being a visible minority / white, 3.2% preferred not to specify, and the remaining 50.6% identified as:

South Asian	Southeast Asian
Chinese	Rusian / white
Black	Acadian
Filipino	Indigenous
South American	Visible minority not listed
Middle Eastern	

Overview of Findings

Skills for Success

Survey respondents selected the top three soft and technical skills from two separate lists that they identified as important skills for success in their field of work / current position. The following results illustrate how many respondents chose the following skills. Select differences in identified skills are highlighted between those who are new to the area (New Canadians) and those who are not (non-Immigrants).

Soft Skills



Creative Thinking & Problem Solving

78.3% of all respondents



Communication Skills

66% of all respondents
51.79% of non-Immigrants



Teamwork

64.2% of all respondents
77.08% of New Canadians



Listening & Comprehension

44.3% of all respondents



Time Management

38.7% of all respondents



Networking

26.4% of all respondents

Hard Skills



Software Proficiency

66.7% of all respondents



Use / Knowledge of Programming Languages

54.3% of all respondents
62.5% of New Canadians



Project Management

61.9% of all respondents
73.1% of non-Immigrants
47.92% of New Canadians



Data Analysis

42.9% of all respondents
50% of non-Immigrants

"Civic Tech is an IT professionals center. It gives us the ability to connect to other professionals who know the city better and have better relations. Also helped us through giving us the chance to work on IT projects so we were building our Canadian experience, which is important and required by almost every employer in the city."

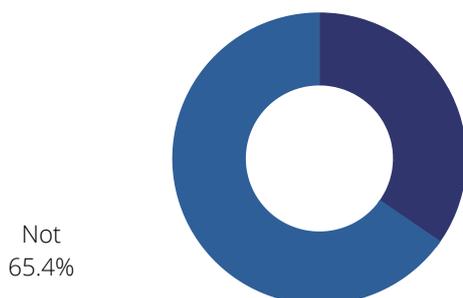
CIVIC TECH MEMBER

Employment Opportunities

Some survey respondents emphasized that there are "very limited job opportunities" in the Fredericton area, and that "all jobs require experience or seniority" regardless of their education and technical skills. The services that respondents identified as helpful in finding employment included:

- Local connections
- Networking
- Volunteering
- Word of mouth
- Multicultural Association of the Greater Moncton Area
- Multicultural Association of Fredericton employment services
- YMCA employment councillors
- Civic Tech Fredericton
- University co-op programs
- UNB job bank & job fair
- CyberNB cyber social
- LinkedIn
- Facebook
- Indeed
- Career Beacon

Civic Tech Fredericton has helped individuals find employment through mentoring processes that update resumes to fit Canadian formatting that "reflect [their] knowledge", an environment that is "welcoming and accepting" for local professional networking, and providing references and referrals for job opportunities.



Civic Tech Member
34.6%

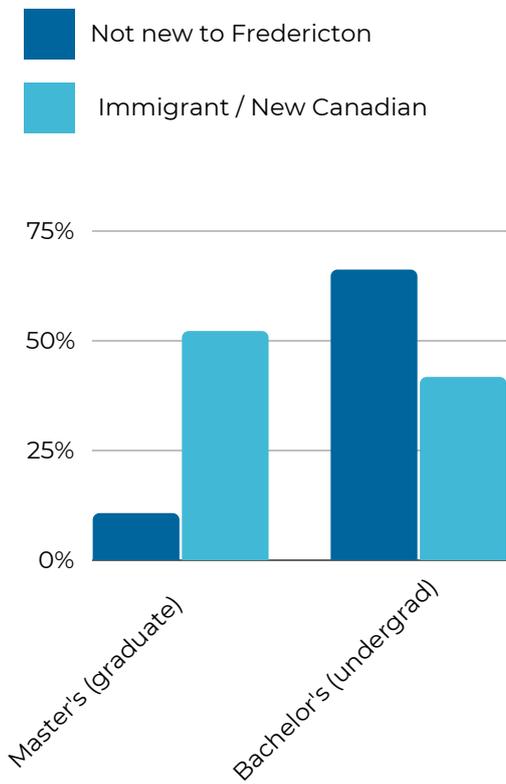
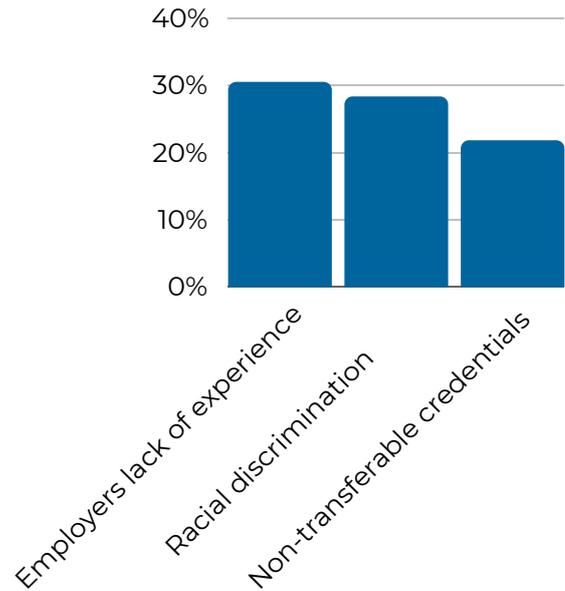
85.48% of the 34.6%

of Civic Tech Members who responded to the survey have received help finding employment through their involvement and volunteering

Barriers to Employment

Findings from this survey suggest that the greatest barriers to employment for new Canadians are racial discrimination in hiring processes, lack of experience in hosting new Canadians, and non-transferable credentials, including employers looking for Canadian experience.

Many respondents spoke about their inability to find work in their field because of their education and experience not being accepted by local employers, despite years of experience in their originating countries. This may lead to skilled newcomers being overqualified in their hired positions, resulting in lower compensation and incentive to stay local.



- The average income for those not new to the area is \$100,000+, while only 2.08% of New Canadians / Immigrants earn this income, despite experience and credentials.
- 40.9% of respondents do not feel that their current salary reflects their experience and education levels, the majority of those being new to the Fredericton area or identifying as New Canadians / Immigrants.
- 54.5% of all respondents have not been given the opportunity for a promotion or pay raise, with similar trends that more New Canadians / Immigrants report not being offered these opportunities.

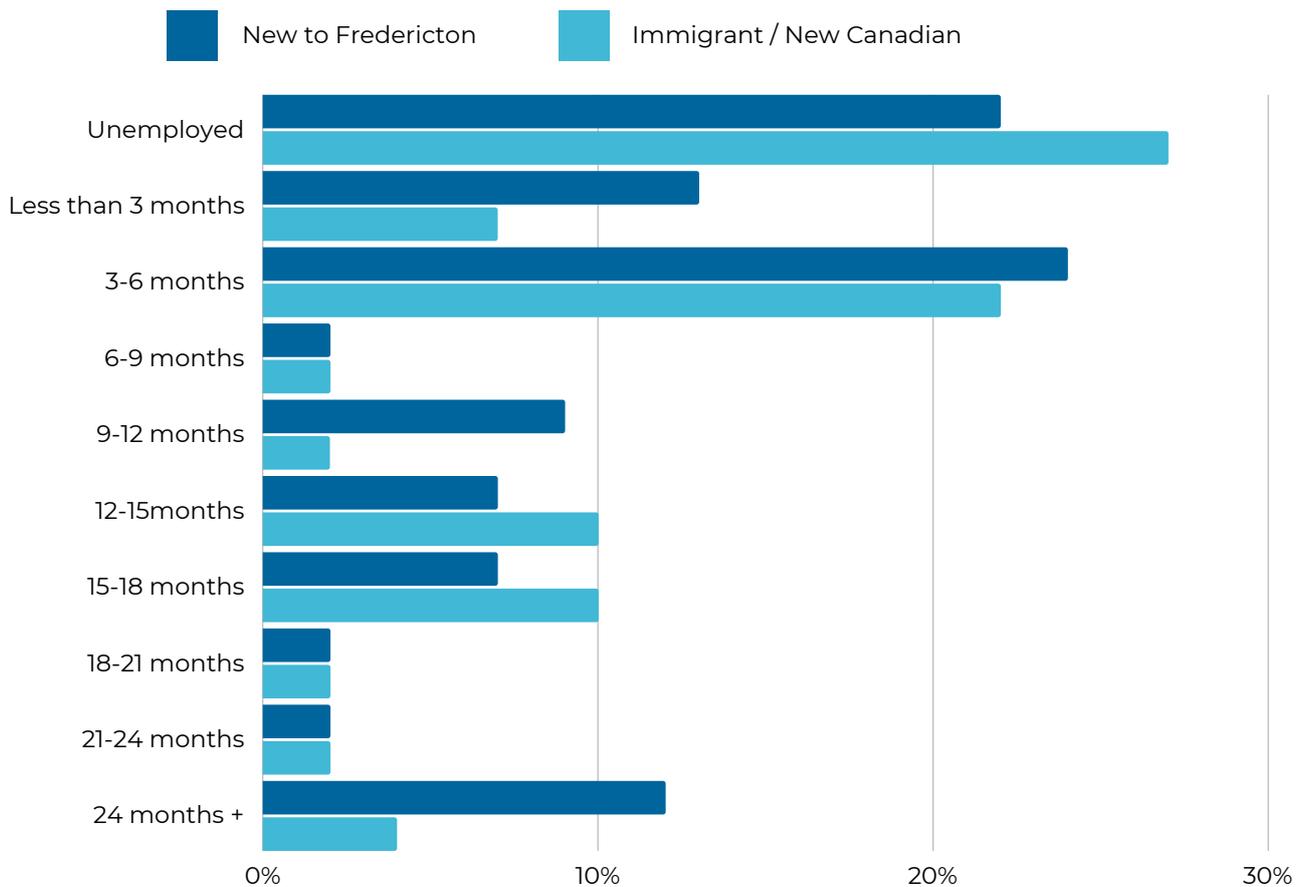
These barriers echo some of the data collected in 'The Immigrant Labor Force Analysis Series' produced by Statistics Canada. "Wages for very recent immigrants aged 25 to 54 and with a university degree represented 70% of the amount earned by their Canadian-born counterparts in 2017." (Statistics Canada, 2018).

"I have 17 years of experience in my field but I only land to an entry level role since I do not have Canadian experience or education."

"Actually Canada is not utilizing immigrants' experiences and skills! Just getting best of the best of the skilled workers across the world then keep them unemployed or doing a survival jobs!!!"

"Despite my extensive experience and certifications in Cyber Security and Project Management, I spent 8 months to find a job in my area. I think I wouldn't have gotten a job without the recommendation given by a Canadian friend that I made in the city."

The survey results also showed that only 7% of immigrants and 13% of those new to Fredericton were able to find employment within the first 3 months of being here. Over 1/3 were able to find employment within 6 months, however, for many it took up to a year and a half or they are still looking for employment. Many survey respondents elaborated on this experience, detailing how their non-Canadian experience and credentials were not enough to find work in their field.



Other barriers to consider

"I believe there are unique challenges for neurodiverse individuals seeking employment in the IT sector due to lack of knowledge and understanding among employers. Certain challenges lead to improvements and enhancements in other areas of productivity, which often get overlooked. It would be nice if more employers understood these complexities and offered support systems to help ND individuals excel."

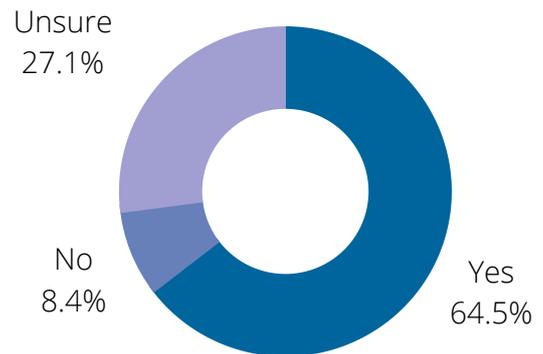


"Local companies massively under-pay skilled people for IT or software jobs. Global companies pay much more, you can get the same salaries as Toronto or Vancouver but working from NB."

Retention of our IT Sector

When survey respondents were asked if they plan on staying in Fredericton for the next 5 years, the majority responded yes. However, over one third are planning on leaving or do not know if they will stay.

The majority of those who responded that they are unsure identify as new to the Fredericton area or as a New Canadian / Immigrant. This uncertainty may relate to the previously discussed barriers to employment.



35.5%

of respondents plan on leaving Fredericton or are unsure if they will stay within the next 5 years

46.56%

of respondents who identify as new to Fredericton plan on leaving Fredericton or are unsure if they will stay within the next 5 years

45.83%

of respondents who identify as a New Canadian / Immigrants plan on leaving Fredericton or are unsure if they will stay within the next 5 years

This potential lack of retention may also be due to the "lack of opportunities & low salary range for IT people compared to other provinces". Many survey respondents spoke about the need to build experience and their network outside of the Maritimes in order to find a job in the Fredericton area or have the opportunity to work remotely. Retention of our IT sector requires equitable compensation and opportunity for growth.

Discussion

Moving forward, it is important to continue listening to and valuing the voices of those in our Information Technology sector, especially those who are facing barriers to employment. This includes putting systems in place that ensure equitable and inclusive hiring and workplace practices.

More detailed responses and results are available with the Fredericton Area IT Survey Responses & Results, as found in the appendix.

Key areas of interest from our findings include:

- 1** Survey respondents identified creative thinking and problem solving, communication skills, and teamwork as the top three soft skills to ensure success in this sector, alongside software proficiency, use/knowledge of programming languages, and project management. However, there were some differences in which were highlighted as more important between those who are new to the area and those who are not.
- 2** Racial discrimination in hiring processes, lack of experience in hosting New Canadians, and non-transferable credentials were identified as barriers to employment for New Canadians / Immigrants. These barriers were reflected in lower income ranges and the amount of time it took to find employment in Fredericton, regardless of education and credentials.
- 3** In a market that has "very limited job opportunities" and "require experience or seniority" regardless of their education and technical skills, local connections were key in finding employment (volunteering, networking, word of mouth, multicultural associations, Civic Tech Fredericton). This was reiterated by a New Canadian who claimed that they "wouldn't have gotten a job without the recommendation given by a Canadian friend that I made in the city."
- 4** Retention of our IT sector requires equitable compensation and opportunity for growth. Many respondents spoke of better opportunities outside of the Atlantic provinces due to lack of opportunities and low salary ranges.



"I've been fortunate to work with some great startups that have been successful as well as some larger enterprises. The local talent pool is great, but I believe more needs to be done to attract companies to the area. More business = more jobs = more competition = more opportunities."

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