

Empowering Futures for Underrepresented Youth: Bridging Green Career Development for Higher Education

Introduction

Background

Over the past several years, there has been a profound shift towards the green economy, resulting in a substantial increase in demand for green jobs, defined as employment opportunities that contribute to the preservation and restoration of the environment and support the transition to a low-carbon economy. These roles are becoming more integral to various sectors of the economy. At the forefront of this transition are students, who are poised to play a pivotal role in driving and sustaining this green transformation. To effectively prepare these future leaders, universities must strengthen their career guidance and counseling services to meet the needs of emerging green job markets. The need is especially critical for underrepresented youth, who often face additional barriers in accessing educational and career opportunities. Universities must ensure that underrepresented students, namely Black, Indigenous, and People of Colour (BIPOC), are equipped to contribute to and benefit from the growing green economy.

On the basis of current literature and policy gaps identified in career guidance practices in

Higher Education (HE) institutions in Canada, existing career counseling services in Ontario-based universities have not provided sufficient guidance and support tailored to sustainability career paths. Specifically, there is a significant gap between the career counseling services provided and the needs of students aiming for sustainability-related professions. This results in students being underserved and uninformed about available opportunities in the sustainability sector and the means to access them. Youth, especially students from multi-disciplinary backgrounds or those without significant or relevant work experience, face challenges in accessing jobs within green industries.

Students further lack the necessary resources and tools to effectively access and pursue careers in sustainability, such as relevant skill development opportunities, networking resources, appropriate resume and interview training, and financial support needed to enter and advance in the field of sustainability. This gap extends beyond the sustainability sector, stemming from a lack of personalized guidance for students pursuing specific career pathways.

Therefore, improvements must also be pursued broadly, addressing the needs of underrepresented students who aspire to work in various sectors.

As the climate crisis accelerates, the post-pandemic landscape of working life and careers is undergoing irreversible changes. There is a pressing need for career counselors at HE institutions to support underrepresented students in accessing green jobs, along with necessary policy changes at both administrative and operational levels to enhance career counseling practices.

In addressing these gaps and implementing necessary reforms, Ontario-based universities can better prepare underrepresented students for the evolving job market.



Broad Research Methodology

The Green Career Centre (GCC) aims to prepare underrepresented youth for green careers and bridge the gap to equitable, accessible, and transparent social and environmental employment opportunities. To this end, the GCC conducted a comprehensive research study on current career counseling practices, policy gaps in HE, and employer needs within the green job market. The findings and recommendations, along with a career development toolkit resulting from the research, aim to equip career counselors with the necessary tools and guidance to support underrepresented youth. Below are the research methods utilized:

- 1 Conducted an extensive review of current literature in the fields of sustainability education and green career development.
- 2 Assessed the current HE policy environment in Ontario and identified advocacy opportunities by pinpointing gaps and potential policy intervention opportunities.
- 3 Held focus group sessions with underrepresented youth attending universities in Ontario to understand current issues and barriers in the practice of career counseling and accessing employment opportunities in the sustainability sector.

- 4 Conducted dialogical interviews with career counselors in Ontario-based universities to understand their current practice and address some of the key issues raised during the focus group sessions. Students and career counselors were affiliated with a wide variety of HE institutions, such as York University, the University of Toronto, the University of Waterloo, Toronto Metropolitan University, and the University of Ottawa, among others.
- 5 Analyzed data from literature reviews, policy analyses, interviews, and focus groups to develop “Empowering Futures for Underrepresented Youth: Bridging Green Career Development for Higher Education.”



Key Issues

The public consultations and research conducted by the GCC uncovered several key issues within HE and the practice of career counseling.

Many students begin their academic journey without a clear understanding of the career services available to them, leading to underutilization of these key resources.

Career counseling services at universities often lack specialization in emerging fields, such as sustainability and green technologies. This results in students receiving generic guidance that fails to tackle the specificities of careers in these sectors. Career counseling should be designed to help students identify career paths that align with their personal skills and goals. However, practices often lack the flexibility and depth to provide this level of personalized support.

A noticeable bias within career counseling was identified through the focus groups, wherein conventional career paths are favoured over non-traditional ones (such as those in sustainability). Students interested in green careers often feel unsupported, as the focus tends to be on other sectors, which can discourage them from pursuing their interests in sustainability.

There is a significant disparity in access to career resources between students enrolled in co-op programs and those who are not. Co-op programs, administered through career offices, provide increased career counseling, job placement support, and networking opportunities. However, access to these

resources often requires additional fees, which can amount to over \$500 CAD in some cases. Therefore, students who can afford these programs receive more support. The financial barrier associated with co-op programs results in an uneven playing field, where students from lower-income backgrounds have fewer opportunities to gain valuable work experience in the green sector. Co-op programs are also plagued by strict academic criteria, often requiring high grades. As a result, many students who may struggle academically but possess the skills and potential to excel in a co-op or experiential learning setting are excluded. The focus on academic performance overlooks other important qualities, such as creativity and problem-solving abilities, which are essential in many sectors, including sustainability.

Several career counseling offices have not completely incorporated Equity, Diversity, and Inclusion (EDI) considerations into their procedures, potentially excluding students from diverse backgrounds.

Consultations also revealed that career counseling services often fall short in providing adequate support for students with disabilities. Many offices lack the necessary training to offer tailored guidance to these students, resulting in limited access to internships and job opportunities that accommodate their needs.

Analysis

Orientation and Awareness

For Ontario's universities to deliver career counseling services effectively, especially to students aiming for green careers, it is essential to provide thorough orientation from the start of a student's academic career. However, as evidenced by the discussions, students are unaware of the available career resources. One student expressed:

"I feel like it would be really helpful, maybe for them to come in and provide, like, a workshop session on how to access their services, like where to go on their website and what to access. But yeah, that's like, one of the barriers that I've experienced, like, I just didn't know where to go or, like where to look."

Participant 4

This reflects a broader issue within Ontario's HE institutions: students are not being effectively introduced to the resources that could significantly improve their career trajectories, particularly in specialized fields like sustainability. Early introduction to these services, ideally during a student's first year, will actively engage them in utilizing the resources

provided, such as CLNx at the University of Toronto and Experience York at York University. CLNx, for example, offers a centralized hub where students can find job postings, access career counseling appointments, and participate in workshops—all important for building a foundation in their chosen fields.

Moreover, there is a need for these platforms to better support the search for green jobs—a common frustration voiced by students during discussions. The lack of easily accessible information and relevant job postings means that students are potentially missing out on key opportunities in the green sector.

"I know there are certain job boards and departments that are specifically geared towards green and sustainability jobs so I feel like maybe promoting that to like students more would be, like, very helpful."

Participant 3

Accessibility

Students reported encountering numerous barriers in accessing career counseling services. Focus-group discussants pointed to several accessibility issues that hindered career development, namely long follow-up wait times coupled with a general lack of information on how to book appointments.

"I remember trying to, like, access my career services or career counseling services at my university, and it wasn't very clear cut as to where you can, like, access the counseling, career counseling services, you'd have to, like, book an appointment and like the appointment can take a while."

Participant 1

Appointments with career counselors can be scheduled with gaps of several weeks or months, disrupting the continuity required. Further, when students do secure an appointment, they often face short sessions that lack clear goal-setting and

follow-up mechanisms, thereby creating an environment where they feel unsupported.

Also central to career development discussions among underrepresented students is the lack of equitable access to certain services. Students in co-op programs are often prioritized for comprehensive and tailored career counseling support. This has produced the sentiment among non-co-op students that they are being sidelined.

"I found that, like for my university, it's really big, and so, like, there were a ton of other students all trying to access the same service pretty much at once. And like, it would be a matter of, like, having to book, like, pretty much months in advance, and then feeling a bit kind of like rushed or overwhelmed with being like, alright, like, we have half an hour to, like, solve all your career problems, and then hopefully that's good enough."

Participant 3

"But like, if you're not in co-op, then they sort of just don't care about you. You're sort of just, on your own, to find summer related jobs."

Participant 3

"A lot of the students who do go through the co-op program, you sort of have to pay, like, a fee right to, like, I guess, be part of the co-op program. So obviously, like, those people will get, like, sort of a priority when it comes to getting career counseling or help of some sort."

Participant 2

While it is acknowledged that the nature of a paid program entails an increased amount of services, this creates a disparity that leaves non-co-op students underserved. The reliance on co-op programs as the primary means of delivering career development services marginalizes students who cannot afford the associated financial costs, meet high-entry grade requirements, and students whose programs do not require co-op participation.

Inclusivity

For students from lower-income backgrounds, limited access to essential resources significantly impedes the development of in-demand work experience and skills that employers highly value, thus stifling future job prospects. In the context of Ontario, where universities serve a highly diverse student population, this issue is even more pronounced.

These students bring with them a wide range of lived experiences, financial means, and cultural

perspectives, including international viewpoints. A lack of understanding or integration of these backgrounds among career counselors often prevents these varied needs from being fully considered in career advice. Focus group participants noted that their counseling sessions did not address critical barriers they face in the workforce such as racial discrimination, sexism, and ableism.

"I've also noticed, depending on which environment I like, which job I work in, there's definitely, I think everyone knows if you are of a marginalized identity, people treat you differently."

Participant 1

"I think just like those dynamics I feel like are so hard to uncover, and they feel so unspoken. Again, you have to figure it out. You ask friends. Maybe do some research about things like, how do I be an Asian woman but have, like, a strong opinion on something? I've had negative experiences with that, and I've heard other people have that as well."

Participant 5

Given this context, counseling services must identify, discuss, and bring awareness to the lived experiences of underrepresented students, particularly at the intersections of race, disability, and gender. Participants reinforced the value of having career counselors who possess first-hand knowledge and experience with issues of inequity.

"I think having that more advertised like, oh, this, career advisors lived experiences with racism in the workplace, with neurodivergency, with race, with a list of X, Y and Z, they could specialize this. I think that'd be super, super helpful."

Participant 2

Career counseling services were described by focus-group participants as offering generally broad and non-specific support.

"Our career counseling at my university is not the most helpful, like, in general, I'd say, like everything, all the advice they gave us pretty surface level stuff that you could, like, find online, on finding careers, and stuff like that. And when it comes to, like, trying to specialize my focus, into the environment, they were not that helpful."

Participant 9

"There just weren't enough people in the office. The career development office just wasn't big enough to accommodate everyone in a way that was, like, meaningfully engaging, like it was kind of more like the equivalent of going into a walk-in clinic."

Participant 3

This lack of personalization particularly impacts students pursuing careers in specialized fields in the green sector. The research revealed that counseling offices were unable to connect students with relevant opportunities. For instance, one discussant highlighted that their career counseling office could not help them find opportunities in sustainable finance. In addition, the participants elaborated on the emotional impact of institutional apathy towards their career development.

The green transition demands more attention from counseling offices, who must be better positioned to aid students in taking advantage of the increase in green job opportunities.



"I am somebody who has a finance background, and what I wanted to enter was sustainable finance. So that is my priority. That is what I'm looking at. So when you look [at] the jobs that were sent to us were nothing related to that, and it's probably like waste management or something else in sustainability, it is not as relevant to me."

Participant 4

"Especially when we're looking for green and sustainable jobs, which are new, the apathy from our career offices can really discourage students."

Participant 6

Networking

Participants highlighted significant challenges in networking, particularly in acquiring networking skills, not knowing where to start, and identifying who to connect with. As one participant noted:

"I would say that 95% of the network that I've built has not been related to any career counseling services."

Participant 1

While some students are naturally proactive in building connections, many—especially first-generation students and those from underrepresented backgrounds—struggle without guidance. Another participant expressed this frustration:

"There's always going to be students who are like, go getters and able to, like, find and like establish these networks, but there are also a lot of people who are new to this, or who've never been expected to network. Don't even know, like, really what it means. I just wish that I had more of that support."

Participant 7

"The career services team did not do, not do much in terms of helping with the networking. But my professors, like when I individually reached out to them, one or two, have been very helpful enough to probably connect me with an alumni of the school."

Participant 7

A reliance on professors is indicative of another gap in career development services, which are not connecting students with the professionals they need to meet to secure internships or post-graduation jobs.

Networking is a learned skill, and without proper training, many students especially those from underrepresented backgrounds are at a disadvantage. The assumption that students can develop networking skills on their own represents a shortfall in HE's responsibility to adequately prepare students for the workforce.

Job Expectations

Job expectations often overlook the diverse needs of the student workforce, leading to inequities, particularly for those from underrepresented groups, such as students with physical disabilities. In fields such as sustainability, entry-level roles often prioritize physical fieldwork.

Career counseling services should not only inform students about these expectations but also help them evaluate whether such roles align with their abilities and career goals, as well as support them in finding alternatives. This is especially important in fields like conservation and land management, where physical demands can be a limiting factor. One student shared:

"Something I've also noticed is that, like, the conservation of land management, forestry, mining, etc, all these kinds of fields are oftentimes the, at least the junior positions, anyways, are kind of physically demanding, or they demand the ability to go out in the field, to perform, like various technical tasks, basically, and then also kind of can require travel, or the ability to relocate, either on like a short term basis or or more long term, really. And so for me, those things are kind of like a limiting factor, and that, like, I cannot physically reliably perform any of these infield kind of tasks, or very easily relocate."

Participant 8



Recommendations

Career development services are vital to supporting Canada's diverse student population. The GCC's consultations have identified challenges in areas such as orientation, accessibility, inclusivity, and aligning employer-student expectations. To address these key issues, the following recommendations have been developed.

1

Integrate EDI Frameworks within the Practice of Career Development and Counseling:

Ontario's diverse student population, particularly underrepresented groups such as BIPOC youth, as well as students with disabilities, continue to face systemic barriers in HE and the job market. To better support these students, career counseling services must integrate comprehensive EDI frameworks that directly address their specific challenges. Counselors should undergo cultural competency training, along with anti-racism and anti-ableism training to deepen their understanding of these barriers. Furthermore, advocating for equitable hiring practices among employers—especially those committed to EDI—will help ensure that underrepresented students are connected with better job opportunities, especially in the sustainability sector.

This can also be translated into employer relations, wherein career offices can establish partnerships with employers (in general and those operating in the green sector) who prioritize hiring from underrepresented groups. Embedding EDI will also ensure that underrepresented students receive guidance on how to navigate barriers in the workforce such as racism, and that students with disabilities are connected with employers who can provide accommodations. While some of Ontario's HE institutions have begun implementing these practices, they need to be scaled up to have a broader impact.

2

Enforce Structural Adjustments within Career Counseling at HE Institutions:

Due to the growing demand for career support among Ontario's diverse student population, institutions must increase funding for their career offices. The funding should be strategically allocated to allow for the hiring of specialized career counselors dedicated to specific faculties or major programs. A broad-reaching career office (catering to many academic programs) could employ 2-4 counselors, each specializing in different areas, such as Social Sciences and Humanities (SSH), Engineering, and the Sciences.

This way, students can receive more targeted and relevant career guidance. To illustrate, a student interested in the policy side of sustainability would benefit from working with a counselor who has expertise in SSH, while a student focused on the scientific aspects of sustainability would be better served by a counselor with a background in environmental science and engineering. This is preferable to the current model, where many counselors are simply trained in providing generalized career advice without deep knowledge of certain fields. An alternative model would involve decentralizing career services, with each faculty or program clusters (e.g., International Affairs and Public Policy or Sustainability Technology and Environmental Science) having dedicated career counselors. Such an approach, already implemented in certain master's programs at the University of Toronto, has shown success.

Structural adjustments should also focus on balancing services between co-op and non-co-op students. Many students who cannot access co-op programs due to financial or academic constraints are left without equivalent support, putting them at a disadvantage. Career offices should offer alternative pathways, such as enhanced support for securing other internships and other non-co-op opportunities.

3

Improve Personalization in Career Guidance:

In addition to the structural adjustments mentioned above, career offices should conduct more surveys to better identify the specific needs of students. Recognizing the difficulty to provide individualized attention to large student cohorts, these surveys can reveal valuable trends and common areas where students require more support. Student consultations indicated that counseling sessions often lacked sufficient follow-up, with some students experiencing infrequent check-ins and others finding it difficult to access follow-up resources. Therefore, career offices should implement more robust follow-up mechanisms, regularly checking in with students after sessions to assess progress towards their career goals.

Additionally, a comprehensive "Career Development Orientation" should be made mandatory for all first-year students (undergraduate and graduate) to ensure they are fully informed about the services available to them. As evidenced by the focus groups, many students are unaware of the existing resources and often have to seek alternative avenues for career advice.

4

Develop Strategic Partnerships with Organizations Specializing in Green Career Support:

Many students have noted that opportunities in the green sector are often left out from university job boards, limiting their access to relevant roles. To bridge this gap, universities should establish partnerships with external organizations and career centers specializing in green careers. Potential partners could include the Environmental Careers Organization (ECO Canada) and the Green Career Centre, both of which offer targeted job postings, internships, and networking events specifically within the environmental sector. Other potential partners include organizations like BioTalent Canada, which connects students with biotech and environmental opportunities.

Universities could integrate these external job boards and resources into their existing platforms. Such measures may not necessarily require formal partnerships but could be achieved through agreements between career offices and the organizations or mere promotion of external job boards by career offices. Through more formalized partnerships, university career counselors could work in tandem with external experts from the above-mentioned organizations, who often house career development professionals themselves, to provide students with

specialized guidance that aligns with their career aspirations. For example, a student interested in sustainability careers could be connected with these organizations to receive tailored career advice while the university counselor acts as a liaison, thus ensuring continuity and support throughout the process.

5

Develop Employer In-Residence and Alumni Mentorship Programs:

Ontario universities can enhance their career services by implementing Employer-In-Residence programs modeled after successful initiatives in the U.S., such as Northeastern University's program. These programs allow employers to spend time on campus—ranging from a few hours to a full day—offering students one-on-one resume reviews, mock interviews, career advice, and workshops on a rotational basis. Employers are provided with office space on campus for a week by career offices, giving students the chance to engage in valuable networking opportunities and obtain direct industry insights from professionals.

Universities can coordinate these visits in the weeks leading up to career fairs to ensure that students are well-prepared to meet with potential employers, with the aim of increasing their chances to obtain employment and develop networking skills. This model could be implemented across Ontario universities as it would provide a structured and recurring way for students to interact with employers, address networking gaps, and develop students' professional skills.

On a similar note, alumni programs need further development, as they remain an underutilized resource that could significantly improve or complement career services. Although several Canadian universities have established alumni mentorship programs, students report that these programs are neither sufficiently promoted by career counseling offices nor are they well-integrated with the services offered by the career offices. To address this, mentorship programs that pair students with alumni in their chosen fields—helping them receive personalized career guidance as they prepare to enter the workforce—should be more embedded within services provided by career offices. For instance, if students feel they have not received tailored guidance, they should be directly referred and registered into these mentorship programs, many of which are already in place.

