

University of Toronto Engineering Career Centre
Engineering Society Feedback & Recommendation Report

Prepared by the 2016-2017 Academic Advocacy Committee



UNIVERSITY OF TORONTO
ENGINEERING SOCIETY

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REPORT GLOSSARY

ECC: *Engineering Career Centre.* The University of Toronto’s primary career resource for engineering students, and subject of this report.

PEY: *Professional Experience Year.* The most popular program offered by the University of Toronto Engineering Career Centre, that places current second or third year engineering students on 12-16 month work terms in industry.

eSIP: *Engineering Summer Internship Program.* A four-month summer internship program offered by the University of Toronto Engineering Career Centre for second and third year engineering students.

YNCN: *You’re Next Career Network.* A student-run organization that offers career development services to University of Toronto engineering students.

FASE: *Faculty of Applied Science & Engineering.* The engineering faculty at the University of Toronto that oversees the Engineering Career Centre.

AAC: *Academic Advocacy Committee.* A standing committee of the University of Toronto Engineering Society Board of Directors that advocates to improve student academic life within engineering at U of T FASE.

CLN: *Career Learning Network.* A university-wide career development service offered to University of Toronto students.

HR: *Human Resources.* In the context of this report, “HR” is used to describe the branch of an organization responsible for hiring and talent management.



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EXECUTIVE SUMMARY

The University of Toronto Engineering Society Academic Advocacy Committee (AAC) has commissioned and prepared this report, outlining data-supported student opinion on, and experiences with, the University of Toronto Engineering Career Centre (ECC). In the Fall 2016 Academic term, the AAC circulated an ECC Feedback survey receiving 160 responses, since used to guide the content and recommendations prepared in this report. The recommendations are organized in five core areas; the Career Portal, professional development services, financial transparency, corporate & external relations, and lastly structure & accountability, to provide the Faculty of Applied Science & Engineering more detailed insight into current student needs, and expectations with respect to career development.

Regarding the Career Portal, students felt increasing offer deliberation time from two business days to one week, and further being able to view their rank for positions which they were second and third for in addition to “first choice offers” would be highly beneficial in helping students make informed career decisions.

The review of professional development services included resume & cover letter workshops, company info & networking sessions, and one-on-one counselling. Generally, students felt workshop content was outdated, lacked utility, and lacked customization to the needs of students in different stages of professional development. There was further great demand for higher engagement with engineering industry in both workshops and networking sessions, with particular emphasis on improving the diversity of opportunities offered by the ECC in non-ECE disciplines. 79% of students surveyed reported a desire for more diverse opportunities in the ECC Career Portal. Finally, with respect to one-on-one counselling sessions, 73% of students expressed the desire to see the ECC staffed by professional engineers, or individuals with engineering experience, further reporting that counsellors lacked the industry experience to offer insight beyond the superficial.

AAC findings additionally report that 71% of students are highly dissatisfied with the fees they pay to the ECC, which, (according to the ECC operating budget the AAC obtained through the University of Toronto’s central FIPP Office) comprise the entirety of the ECC’s revenue stream. There is very high demand for these fees to be reduced, and for the ECC to diversify their sources of revenue.

Evidence of dissatisfaction from current and potential PEY employers further highlighted a need for improved flexibility in the PEY program. Classification of the PEY program as a “co-op,” and improved flexibility in the length of opportunities will improve the experience for both students and employers.

Finally, the accountability of the ECC going forward is of concern, to ensure in future feedback is consistently collected, reviewed, and implemented to improve student engagement. The striking of an overseeing Accountability Committee to report to Faculty Council is recommended, to hold the ECC accountable to this future feedback, and to help determine the long term vision for the ECC. Several structural and operational changes are further proposed to improve staff accountability, and ECC utility to students.



BACKGROUND

This report is motivated by the University of Toronto Engineering Society Academic Advocacy Committee (AAC) to provide observation-driven and data-supported student opinion on the services offered by the University of Toronto Faculty of Applied Science and Engineering Career Centre (ECC), along with a series of recommendations to allow the ECC to better serve U of T Engineering students in the future.

The ECC offers internship opportunities including the Professional Experience Year (PEY) and Engineering Summer Internship Program (eSIP). Services provided by the ECC include information sessions, career counselling, and professional development workshops [1].

An ECC feedback survey by the Academic Advocacy Committee in the Fall 2016 academic term gathered 160 responses from current engineering students who had participated in either, or both, of the aforementioned internship programs offered by the ECC. When surveyed, 58% of students reported they were able to find a job placement through the ECC Career Portal, 34% of students found a placement through means outside the ECC Portal, and 7% of students did not find a position at all [2].

To access the ECC Career Portal and participate in workshops, students must pay a fee of \$125 for registration, and an additional placement fee of \$975 (PEY) or \$275 (eSIP) if a job is secured. This fee is paid regardless of whether students obtained their placement by means of the ECC Portal, or otherwise [3][4]. When surveyed about the the registration and placement fees, 71% of students felt extremely unsatisfied with the amount they paid in exchange for career services [2].

Further, a census of 215 U of T engineering students was performed by the You're Next Career Network (YNCN) in 2014, a professional development organization operated solely by volunteer U of T undergraduate engineering students. When students were asked to evaluate their satisfaction with University of Toronto career services (inclusive of the ECC), third year students gave an average satisfaction score of 5.5/10, while fourth years reported an average of 1/10; 10 being "completely satisfied" and 1 being "completely unsatisfied." In the same survey, YNCN received student satisfaction scores of 6.2/10 from third years, and 7.4/10 from fourth years [5].

In this report, issues identified by students are discussed with a lens on the services and operations of the Engineering Career Centre, considering: the career portal, professional development services, financial transparency, corporate relations, and organizational structure. Recommendations have been proposed by the Academic Advocacy Committee to improve student satisfaction with engineering career services.



1 - CAREER PORTAL REVIEW

It was reported in the Fall 2016 Engineering Career Centre (ECC) feedback survey that the Career Portal was the most used and most important service provided to students by the ECC [2]. In view of this, there remain issues regarding the structure of the Career Portal that warrant review. This section outlines key problems identified in the PEY/eSIP application process regarding the ECC Career Portal, as well as recommendations for resolving these issues.

1.1 Insufficient Offer Deliberation Time

First round offers are given to students during a December “Offer Period” following several months of applications and interviews. Once an offer appears on the Portal, the student is given two business days to accept or decline the offer. This is an insufficient amount of time to consider accepting a work placement that will last up to 16 months. Further, should a student’s decision be based on details such as start date, salary, or duration of placement, it may prove difficult to negotiate details of the placement in this limited time window.

SECTION 1.1 – DELIBERATION TIME RECOMMENDATION:

1. Extend the deliberation time available to students to one week.

Potential next steps:

- Extending the length of the Offer Period to accommodate a one week deliberation time.
- Working towards a system where employers set their own deliberation period as needed.
- Allowing students to petition extended deliberation time under circumstances where they are considering an option outside the Portal as well.



1.2 Transparency in Ranking Position

Students often find it difficult to weigh their offer options, given they are uncertain of their rank status for all companies other than their “first-choice” offers.

Consider a situation in which a student interviews for two companies where one is their first choice, and the other is a back-up. Should the student receive an offer from their back-up company on the first day of the Offer Period, there are several possible courses of action. First, the student may be ranked highly by their preferred company, but not knowing this, accept the less desirable position. Alternatively, the student may decline the given offer in hopes of receiving the preferred one, but never end up receiving it. The ranking system must be able to provide students with more insight during their internship search.

SECTION 1.2 – RANKING POSITION RECOMMENDATION

2. Improve the transparency of the ranking system.

Potential next steps:

- Allowing students to view if companies have ranked them 1st, 2nd, or 3rd in the Offer Period.
 - A similar procedure is used at the University of Waterloo, where students and employers rank each other respectively and are matched [6]. However, the proposed model would allow students to have the final choice in accepting positions.



2 - PROFESSIONAL DEVELOPMENT SERVICES

The Engineering Career Centre (ECC) offers a variety of professional development services, including resume workshops, company info and networking sessions, and one-on-one career consultations. In Fall 2016, the Academic Advocacy Committee conducted an ECC feedback survey among students who were applying for, presently on, or had completed an ECC internship program. The survey data was analyzed to gauge student experience with the professional development services offered, as well as the ECC as a whole. Figure 1 illustrates the number of hours PEY applicants had spent using ECC services.

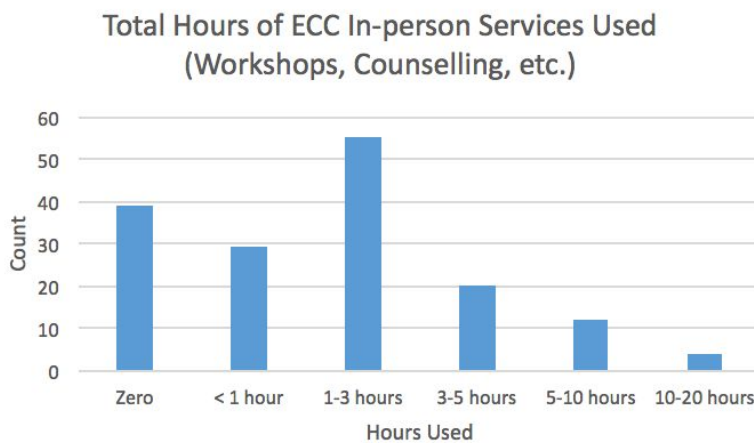


Figure 1: The statistics show that 77% of students have used 3 hours or less of ECC’s in-person services, including workshops, info sessions, and counselling [2].

This survey garnered 160 responses, 87% of which were from students either currently on PEY, currently searching for a PEY, or were on PEY last year. There is no evidence to indicate that there is a significant bias in the survey sample relative to the population parameters for the following information, and graphical data from the survey is included in Appendix A.

General Acclaim

A small portion of students in this survey pool reported positive experiences with ECC services. The most frequent positive feedback includes: supportive personal counselling sessions, interactive interview prep and mock interviews, great cover letter writing advice, and helpful online handouts. In response to the question: “*Have you ever experienced something outstandingly good, helpful or informative at an ECC event or in your interactions with the ECC?*”, 32 out of 160 respondents gave positive feedback.



Some of these positive responses are included below:

- “I had a one-on-one appointment that discussed strategies for networking - this was great. I ended up using those skills to get my PEY.”
- “Individual interview prep was an outstanding experience with one of the counselors.”
- “Yes, I have developed my cover letter writing skills as a result of an iterative editing process with one of the counsellors.”
- “Sometimes counsellors raise very good points on revising my cover letter and resume.”

Other answers praised the professional organization of on-campus interviews and the help received with writing the PEY reports [2].

General Critique

The ECC also faced critique with respect to its professional development services. The most common criticisms include: overly-generic advice, archaic and outdated advice, repetitive information that can easily be found online, and discouraging presenters that disparage the morale of students. The following comments were left by students:

- “It's out of touch. Dated, too general, not as organized as the student organizations, and feels forced. There should not be a mandatory transition to workspace session.”
- “Archaic. Needs to evolve to accommodate the needs of a diverse student body.”
- “They need a revamp, to be more relevant to current job market.”
- “Total waste of time. All workshops are about diminishing the students' confidence irrespective of what the title of the workshop is.”
- “Honestly, it was held for the general, not for individual. The things they said in the workshop is basically you can learn from internet.” [2]



2.1 Resume, Cover Letter, and Other Workshops

A variety of responses were received when students were asked about the ECC’s workshops. Among the positive feedback, cover letter workshops were commonly acknowledged as “genuinely useful.” However, a larger proportion of the respondents indicated that workshop services required vast improvement in content, delivery, and perspective on industry [2]. Figure 2 below shows student opinion on the utility of the mandatory “Transition to Workplace” workshops run by the ECC.

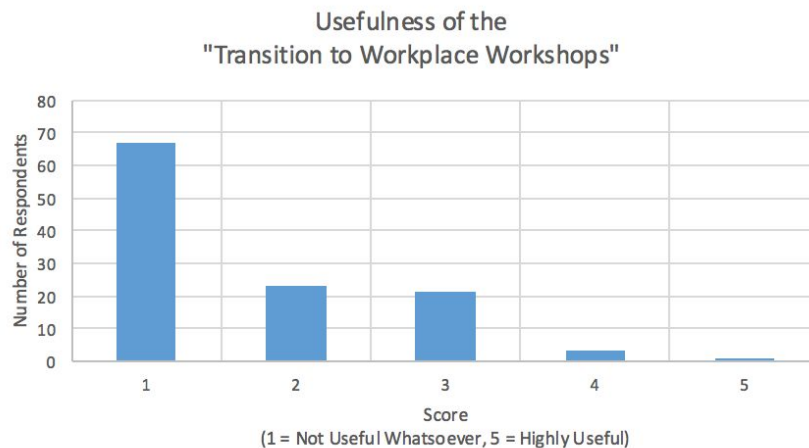


Figure 2: the above statistics show that upwards of 58% of students do not find the mandatory “transition to workplace” workshops useful [2].

Workshop Content

Several students reported receiving outdated information from ECC workshops. Examples of such suggestions include 2-page wide margin formats for resumes, and long cover letters. Workshop content was further described as, “all the exact same” and “unchanging.” This feedback indicates that the ECC has not remained up to date with current industry standards.

Another issue acknowledged by most respondents was that workshop content was too general, and did not cater to specific needs. Currently workshop content caters to a broad audience under the assumption that students have limited work experience or have never written a resume before. While this is helpful to some, such information may be deemed as common knowledge by others. It was further reported that the ECC was “handing out the same resume template to every student that walks in for help.”



Additionally, information about the details of the PEY program, such as understanding how to sign up or when to prepare a resume, remains vague until third year. This is not ideal, as the stress of succeeding in school coupled with the new workload of finding a job presents itself as a tremendous pressure to students.

Workshop Delivery

Workshop delivery was described by students as monotonous, unenthusiastic, and non-interactive. Many reported it felt as though staff were rushing through slides, and “reiterating the handouts” during workshops. One student was disappointed that “there was no interactive session where students could also practice what they’re being taught.” Other students reported they “could have gotten everything from the handout,” and stopped attending the workshops as a result.

Workshop Perspective

Workshops were generally described by students as lacking the perspective of current employers, and of more experienced students. A number of respondents mentioned that current students who had previously been on internships provided more useful advice than the ECC, as they “actually know what employers are looking for.”

117 out of 160, approximately 74%, of respondents suggested that ECC should be staffed by professional engineers with relevant job-searching experience and knowledge. Additionally, one of the reasons that many students prefer workshops held by the student-run You’re Next Career Network (YNCN) is that “they brought in successful industry professionals to help us see what recruiters may be looking for.”

Additionally, lower-year students have complained that there are not enough resources to find internships, and have felt that their needs are not taken as seriously as upper-year students searching for PEY positions [2]. 63.3% of those surveyed would like to see more assistance with searching for internships in lower years [2]. Providing more assistance would encourage more lower-year students to search for internships and improve student engagement.

A key factor in reconstructing the ECC is engaging students and employers in the designing and hosting of workshops.



SECTION 2.1 – WORKSHOP RECOMMENDATIONS:

3. Integrate both professional engineers and experienced students returning from PEY or summer internships into workshops.
4. Hold more interactive sessions, where students can directly apply workshop material.
5. Ensure workshop facilitators are informed of current hiring practices, are engaged in workshop content, and can offer insight beyond basic tips.
6. Tailor content to the varying needs of different student groups.
7. Integrate industry networking in all forms of workshops.

Potential next steps:

- Ensure staff offering the workshops are professional engineers, or are experienced in engineering industry hiring processes.
- Facilitate workshops for returning students to share their experiences with younger students.
- Facilitate 2-part workshops, in which: resume & cover letter development advice is offered in a lecture style; and industry professionals and FASE (Faculty of Applied Science & Engineering) alumni give individual advice to students.
- Facilitate resume and cover letter workshops tailored to first and second year students, with a focus on translating school experiences to transferable work skills in preparation for third year.
- Bring in guest speakers from industry that work in HR to resume development workshops.
- Research and consult with HR professionals or FASE alumni in various industries that employ engineers, including manufacturing, technology, business, marketing, and research, to determine best practices in career development and targeted application tips for students looking to pursue opportunities in any of the above fields.



2.2 Company Info & Networking Sessions

Many respondents offered comments on the Company Info Sessions and Networking Opportunities provided by the ECC. Numerous comments were positive, saying “we need more events like that [*event visiting company HQ!*]”. Other responses highlighted the cracks in ECC outreach and connections with industry.

Professional Connections

Numerous responses indicated that the ECC’s professional network was lacking and didn’t adequately bridge the gap between industry professionals and students in all disciplines.

In response to the question “Have you taken advantage of workshops hosted by the You’re Next Career Network? How do they compare to workshops held by the ECC?” 65 of 70 respondents that attended both YNCN and ECC events indicated that YNCN provided a higher quality service, largely due to their strong industry connections. Students went on to describe ECC workshop presenters as disconnected, having no experience in the engineering industry, and therefore being less informed on how to prepare students to acquire engineering jobs. Responses to the survey question are provided below:

- “I like how YNCN's workshops feel more casual and are led by working industry professionals from big companies.”
- “Significantly better in every way possible. Young, modern, up-to-date knowledge on recruiting processes at more relevant companies. They are actual current students or recent graduates who are/were currently employed by companies that appeal to the student body.”
- “I had held workshops hosted by You're Next Career Network. They often have professionals and it was useful since they spoke to us on what the employers actually want.”
- “Yes and they're much better (at least the ones in 2014). ECC is too outdated and barely has the awareness of what employers are looking for, let alone how to shape your engineering career.”
- “I believe the lack of quality in the ECC services is due to several reasons such as the limited experience of the staff (engineering experience, working in an engineering field) and understanding that the job market is incredibly competitive, among other reasons.” [2]



Diversity of Outreach

Another persistent problem identified by students was the lack of variety and the small number of companies relevant to all disciplines in the Career Portal. In response to the question “*If you have any other improvements you would like to see, please elaborate on them here,*” students noted that having a “better variety of networking events,” and “way better outreach for companies,” would greatly improve connections between students and industry, and consequently the job acquisition process.

Further, students reported that the jobs listed on the Career Portal were highly concentrated in software and technology and that positions in other disciplines are lacking, particularly in mineral engineering. 79% of those surveyed would like to see a more diverse job portal; there was a particular demand for non-programming positions [2]. This does not represent a lack of positions available, as mineral engineering students for example, receive many emails regarding work opportunities from their discipline chairs. Instead, this indicates a lack of outreach on the ECC's behalf, to post jobs relevant to students across all disciplines. One mineral engineering student reported to the AAC:

- "The PEY portal is useless to mins. I can guarantee you that every single person in the last 3 years didn't get their job through the portal... they got it on their own."
– 4th Year Lassonde Mineral Engineering Student

While the above quote demonstrates that this problem is particularly pervasive in mineral engineering, it should be noted that similar sentiments were expressed across the other disciplines as well, resulting in the demand for increased diversity in the job portal.

SECTION 2.2 – COMPANY INFO & NETWORKING SESSION RECOMMENDATIONS:

8. Incorporate engineering industry professionals into workshops, info sessions, and internship postings, and leverage these connections to update the content of services and expand outreach.
9. Improve the diversity of professional outreach to ensure representation in the Career Portal is more equal across all disciplines.

Potential next steps:

- Allocate more resources towards, and develop professional connections with, industry professionals and FASE alumni members in all disciplines with the aim of improving the diversity of Portal jobs.



- Improve communication between Undergraduate Department Chairs and the ECC, to build suggested job opportunities sent via email into PEY Postings.

2.3 One-on-One Counselling

Many respondents preferred one-on-one counselling over attending workshops. While some ECC counsellors received high praise from the students for their helpfulness, the overall review brought other issues to light. In response to the question “How do you rate the proficiency, helpfulness and professionalism of the ECC Career Counselors, on a scale of 1 to 5?” a total of 153 responses recorded an average of 2.30 (with standard deviation 1.09 and median 2.00). The rating distribution graph is presented below in Figure 3. The reviews have been summarized into three categories: delivery, content, and availability.

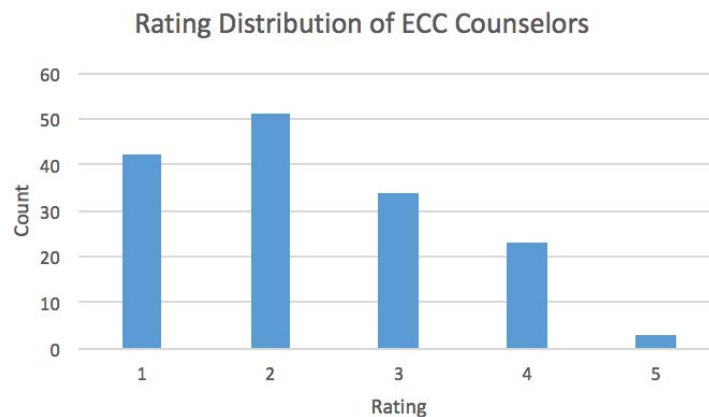


Figure 3: The distribution of student opinion on ECC Counselling services [2].

Delivery

Issues reported by students include: superficial resume reviews, limited explanation of advice, and instances of disparaging remarks made to students. Statistically, 93 of 160 respondents suggested that staff accountability required improvement. Sample responses concerning counsellor services include:

- “In first year, an ECC counselor looked at my resume, laughed and said, is that it? ... Very unsupportive specially for a first year student trying to find their very first professional job.”
- “They gave no feedback on my resume, said it was fine, and then I took it to the CLN and got lots of great advice on it. ”



- “On another occasion, I asked for resume advice in first year, however they just pointed me to a list of resources, that I had already googled myself. ”
- “One of the advisors is not only not helpful, but also disrespectful. ”
- “Counselor was 10 more minutes late for meeting, so I asked the front desk again if I should get to the office, and the lady was eating salad, with headphones on, didn't even look at me and asked me to be patient.” [2]

Content

The following issues were reported with respect to session content: generic advice, contradictory advice between counsellors, and lack of focus on industry [2]. Sample responses include:

- “The advisor did not seem familiar with civil/engineering in general”.
- “When I went for resume help, most of the advice that was given was not tailored to the industry that I was applying for and I learned that they were unable to help me highlight technical experiences well on the resume. This I learned through YNCN and other upper year friends, as they were much more beneficial (and also free). ” [2]

As mentioned in Section 2.2.3 in the report, 117 out of 160 respondents suggested that ECC should be staffed by professional engineers with relevant job-searching experience and knowledge. The present lack of engineering experience in ECC staff contributed to the general, and non-engineering specific advice given to students in past counselling sessions.

Availability

It was further reported that the availability of counselling sessions could not meet the demand by students [2]. Many mentioned that “the in-person appointment process is way too long (~2 weeks) for the rapid job application cycle.” The lack of counsellors who are enthusiastic, and accountable for counselling services has been noted as an issue by many students who made use of the services.

SECTION 2.3 – ONE-ON-ONE COUNSELLING RECOMMENDATIONS:

10. Ensure counsellors are up-to-date with industry-specific engineering hiring practices, and are qualified to map out an engineering career.
11. Improve logistics of scheduling and accommodating demand for counselling sessions.
12. Improve accountability from counsellors to ensure they are maximizing available session times to students.



Potential next steps:

- Offer a peer-counselling service from post-PEY/eSIP students.
- Offer an FASE alumni-counselling service through the Alumni Outreach Network.
- Staff the ECC with individuals who possess professional engineering experience, or significant experience in engineering industry.
- Ensure ECC counsellors are maximally accessible to students, and accountable for their responsibilities via the Accountability Committee proposed in Recommendation 18.



3 - FINANCIAL TRANSPARENCY

After unsuccessful requests for financial statements from the ECC prior to this review, the Academic Advocacy Committee in Fall 2016 formally requested the operating budget for the ECC for the past five years through the University of Toronto’s central Freedom of Information and Privacy Protection Office. The Financial Impact Summary provided by the FIPP Office is shown in Table 1 below.

Financial Impact (Plan) Summary					
PEY Office & Engineering Career Centre					
	2016/17	2015/16	2014/15	2013/14	2012/13
Revenues					
Application Fees	<u>1,000,000.00</u>	<u>1,000,000.00</u>	<u>900,000.00</u>	<u>899,328.00</u>	<u>795,000.00</u>
	1,000,000.00	1,000,000.00	900,000.00	899,328.00	795,000.00
Staffing Expenses					
Staffing (Full time)	884,423.00	796,971.00	789,941.00	899,328.00	692,648.00
Staffing (Part time)	<u>11,000.00</u>	<u>66,000.00</u>	<u>5,500.00</u>	<u>0.00</u>	<u>11,000.00</u>
Total Staffing Expenses	895,423.00	862,971.00	795,441.00	899,328.00	703,648.00
Operating Expenses					
Equipment	327.00	530.00	559.00		2,000.00
Supplies	4,000.00	4,000.00	5,000.00		4,352.00
Services	12,500.00	13,500.00	2,500.00		2,000.00
Telephone	2,500.00	2,500.00	1,500.00		1,500.00
Occupancy	70,000.00	100,000.00	85,000.00		65,000.00
Advertising	2,250.00	2,250.00	1,000.00		3,000.00
Hospitality	4,000.00	4,000.00	4,000.00		6,000.00
Printing	5,000.00	6,000.00	2,500.00		2,500.00
Travel	<u>4,000.00</u>	<u>4,250.00</u>	<u>2,500.00</u>		<u>5,000.00</u>
Total Operating Expenses	104,577.00	137,030.00	104,559.00	0.00	91,352.00
PEY Operating Unit Expense	1,000,000.00	1,000,001.00	900,000.00	899,328.00	795,000.00
Faculty-level Expense Impact	330,439.00	314,275.00	359,612.00	343,678.00	300,840.00
Central-level Expense Impact	<u>1,390,163.00</u>	<u>1,383,068.00</u>	<u>1,212,840.00</u>	<u>1,166,871.00</u>	<u>1,042,945.00</u>
Total Expense	2,720,602.00	2,697,344.00	2,472,452.00	2,409,877.00	2,138,785.00
Net Expense	1,720,602.00	1,697,343.00	1,572,452.00	1,510,549.00	1,343,785.00

Table 1: Financial Impact Summary (Planned) by the ECC



This table contains a number of concerning irregularities. For example, in FY2013/14, the ECC budgeted precisely zero dollars for non-payroll expenses, despite the fact that the full time staffing expense exactly matches revenues from application fees. These irregularities make it challenging to conduct a thorough review of the ECC’s use of student application fees.

Particularly concerning is the expense impact external to the operating unit. The ECC incurs expenses consistently \$1.5 million in the excess of the amount of application fees received. This seems to suggest the Centre has expenses nearing \$2.7 million.

Full time staffing costs (\$796,971 in F15/16), including compensation for the Director (\$102,870 in F15/16), constitute the lion’s share of the ECC’s expenses each year.

Application fees constitute the entirety of the ECC’s revenues. Other organisations, including YNCN, receive funding directly from corporations who pay for access to University of Toronto students. New revenue streams should include placement fees and booth fees, paid by corporate clients to the ECC. These revenues streams should be sufficient to offset a great deal of the placement and application fees paid by students.

Given the 71% student dissatisfaction in paying steep ECC fees (\$125+\$975 PEY or \$125+\$275 eSIP) in exchange for the services provided by the ECC’s full time staff [2], serious consideration should be put towards improving this value proposition and funding model.

SECTION 3 – FINANCIAL TRANSPARENCY RECOMMENDATIONS:

- 13. Source more revenue from external sources, outside of student fees.
- 14. Lower student internship application and placement fees.

Potential next steps:

- Improve corporate sponsorship of ECC workshops and networking opportunities; leverage the extra revenue to reduce fees.
- Alleviate the “placement” PEY fee for students who obtain PEY positions outside the Career Portal, and lower it for those who do obtain a position through the portal.
- Refund students who do not obtain a PEY after registering for the Career Portal.



4 - CORPORATE & EXTERNAL RELATIONS

In collecting data for this report, Academic Advocacy Committee members reached out to engineering companies who currently employ university students in order to gather feedback on their experiences with the hiring process. Details of the issues discussed through these communications are shown in the following sections, along with recommendations for improvement and potential next steps.

4.1 PEY Case Study 1

Small Engineering Firm, regular employer of PEY students

Upon request, email feedback was sent to the University of Toronto Engineering Society from the CEO of a small engineering firm which had employed several U of T PEY students in the past. The feedback discussed the firm's attempt to hire an engineering PEY student from U of T for a 12-month term, beginning January 2017. While actively wanting to hire the U of T student, the firm was delayed in the process, as they required the ECC to qualify the student as a "co-op" student. The ECC was reluctant to do so, given that the student in question would be beginning their term in January, rather than May or September as is typical, and there was little framework in place to allow this qualification.

The ECC offering the qualification of "co-op" student would have allowed the firm to access:

- a co-op credit providing a cash contribution of \$3,000 for each of the student's 4-month "co-op terms."
 - i.e. if the student was with the firm for 12 months, (January 2017–December 2017), this would defer \$9,000 of the student's cost from the company, which was significant given its small size.
- Two NSERC Grants:
 - January 1st - March 31st: up to \$4,000 based on the end of government fiscal year
 - April 1st - July 31st: up to \$4,500

If the ECC structured their internal affairs in a way that supported smaller companies' budgets, the company in question could have obtained nearly \$17,500 in grant to support the PEY student. For a 12 month period where the student would work 1980 hours (at 7.5 hours a day for 22 days a month) this would be a \$8.83/hour subsidy. If the student was paid \$18.83/hour, the student would only cost the firm \$10/hour, which provides a huge incentive for the firm to hire a PEY student over a full-time employee.

Furthermore, if the PEY student was doing qualified research and development, the company's expenditure on the employee would qualify for a Scientific Research & Experimental Development



(SR&ED) Investment Tax Credit (ITC). This was reported from the CEO to cut a further ~50% from the actual cost of the PEY student, allowing the small firm to hire a 12 month PEY for approximately \$10,000 [7].

The following is a direct quote from the CEO's email:

“For clarity, we were focused on the PEY student's situation, where we wanted the University to clarify they were in a Co-op program which was January to December (12 months). I believe that UofT's unwillingness to be flexible on this aspect is still a problem. From the University's perspective, they are trying to focus the PEY as a Co-op, but only during the proper PEY calendar. If UofT was more flexible it would help students that missed the PEY window. Our PEY student noted that they had a job lined up that fell through; hence they had to go back to school. We had the need for a student to start in Sept or November, but as an employer we missed the boat on PEY timing. More flexibility on the University's side of things would make it easier for students to get work experience, which is very much part of a good education [7].”

Allowing more flexible PEY timelines (i.e. positions starting in January, breaking one PEY into smaller terms, etc.) would greatly enhance both the experience of employers, who could access “co-op” grants, and students, who are more free to explore their professional development ambitions.

4.2 PEY Case Study 2

Toronto-based start-up company, not a regular PEY employer

The Engineering Science Academic Director (student member of the AAC who facilitates EngSci academic advocacy, and acts as the EngSci faculty liaison) visited a Toronto start-up founded by a U of T FASE Alumni in Fall 2016. They noticed that few to none of the engineering students employed at the company were hired from U of T, and inquired of the founder why this was the case. Their findings from this conversation are reported below.

The founder explained that despite the fact he was an FASE Alumni, and that the startup office was in Toronto, they primarily recruit from Waterloo, as the University of Waterloo Centre for Co-operative Education and Career Action performs much of the work for the employer, including supporting recruitment, and setting up a custom internship program that supports the structure of their co-op program.



In the founder's experiences contacting the ECC to investigate PEY hires, he shared that ECC was: "not just a handful to work with, but they rarely (if ever) took initiative in supporting the company in creating a comprehensive PEY program" [8].

Given the low numbers of U of T interns present at that company, it is clear that over time, this lack of response was demotivating enough for the company to minimize their interactions with the U of T.

Something that students cannot make up for through independent work (e.g. the You're Next Career Network) is the lack of corporate engagement from the ECC in setting up PEY Portal positions. It's an extremely important part of what the ECC is meant to do: develop meaningful relationships with employers, and work with them to improve PEY as a structured learning experience, by designing support materials and corporate networking programs.

Companies that have never hired PEY students before should be able to, at minimum, have open dialogue with the ECC to learn from companies that have succeeded with PEY in the past. This is currently not being accommodated. PEY is not the standard "co-op program" understood by most employers, and as such extra support from the ECC is truly needed to support the program to the standard of other engineering universities in Ontario [8].

To improve corporate relations, the ECC must work to serve employers as well as students. Educating small employers about potential co-op grants available to them to fund students particularly based on the type of work would be highly valuable. Working with first-time PEY employers to design a valuable "PEY Internship" in the company would further improve the experience of both the employer and student. Finally, the experience of the company in setting up a PEY program requires improvement if the ECC wishes to retain and attract top tier companies to U of T's Engineering program.



SECTION 4 – CORPORATE & EXTERNAL RELATIONS RECOMMENDATIONS

15. Improve the flexibility of the PEY program.
16. Improve the experience of employers in hiring PEY students.
17. Maintain strong relationships with and be receptive to feedback from firms that employ PEY students.

Potential next steps:

- Offer flexible internship starting dates.
- Enable internship opportunities outside of the current standard 16 month term.
- Reduce barriers for a company to participate in PEY.
- Consult with new companies to design a custom PEY program.
- Share grant and funding information available for hiring co-op students.
- Facilitate focus groups with existing PEY employers, post-PEY students, and FASE alumni to quantify the “ideal PEY,” and use this template to help new PEY employers develop PEY programs.



5 - STRUCTURE AND ACCOUNTABILITY

At all material times during the AAC's study of the ECC, the ECC was structured as follows:

- A Director in charge, who led the overall vision of the ECC and personally counselled students
- An Assistant Director
- Three Internship Programme Coordinators
- Two Program Administrators
- Two full-time career counsellors

To the knowledge of the AAC, this represents the totality of the ECC's structure and operations.

5.1 Accountability and Feedback Mechanisms

The AAC reached out to the ECC Assistant Director and inquired about current mechanisms of obtaining feedback. The response outlined a series of opportunities through which the ECC collects informal feedback (e.g. at employer events, during counselling sessions) and formal feedback through the PEY end-of-term and mid-term reports.

While we do not have access to this formal feedback, this method of obtaining feedback encompasses several issues:

- Students are aware that the feedback in their PEY report is being marked which may prevent students from expressing candid feedback.
- The aforementioned feedback goes directly to the ECC, and as such there are no accountability measures to ensure feedback is properly reviewed or implemented.

Though it is evident that ECC feedback mechanisms are in place, they are not very well advertised or incentivized to students.

The ECC should be accountable to the groups it is designed to serve, including students, companies, and the faculty. To improve accountability, the ECC should allow for annual independent reviews to be performed by a third party body, and publish a report detailing the steps taken to follow the proposed recommendations. A suggested structure for this body is outlined in the recommendations for this section.



5.2 Student Expectations for the New Director

The ECC should hire a Director with the skills and experience relevant to managing and addressing issues raised in the present report, and to meeting student expectations.

The Director should be an individual with business experience, whose focus is the day-to-day operations, human resources, business development, and keeping the ECC office running smoothly and on-budget. The Director should no longer provide direct counselling to students, rather they should act as a liaison between the overseeing committee, and the ECC employees, where matters of employee performance are concerned.

Given that a majority (73%) of student survey respondents indicated that they would like to see an ECC “Staffed by professional engineers with relevant job-searching experience and knowledge,” professional engineering and/or HR experience at an engineering company would be a great asset to the new ECC Director. They should also be personable, equipped to lead and inspire a team to action, and further prepared to build lasting professional connections with both campus stakeholders in the professional development environment and new external parties.

Finally, a benchmarking table of services offered by other Ontario engineering and business career networks is available in Appendix B for review, which consider staffing changes.

To contribute to the new director interview process, the AAC has provided a list of potential interview questions below:

5.2.1 Potential Interview Questions

- How do you plan to interact with popular student organizations such as the You’re Next Career Network, and the Engineering Society, each of whom might have different visions for professional development services?
- Please outline your strategy to improve the quantity and diversity (i.e. across all engineering disciplines) of job opportunities offered by the Engineering Career Centre.
- According to recent data, current engineering students are highly unsatisfied with the services provided by the ECC. How would you plan to address this dissatisfaction, and improve the relationship between the ECC and the current engineering student body?



SECTION 5 – STRUCTURE & ACCOUNTABILITY RECOMMENDATIONS

In this section, “Potential next steps” have been incorporated into the Recommendations, as the scale and complexity of executing changes in matters in organizational structure is outside the scope of this report.

18. An overseeing “Accountability Committee” shall be struck, reporting to Faculty Council, that should hold the ECC accountable and handle feedback received. We recommend it comprise:
- One faculty member, who shall serve a 3-year term.
 - One staff member, appointed by the registrar’s office, who will be in charge of the logistics of the committee itself, keeping minutes and convening meetings.
 - Two student members, who shall serve one-year terms, appointed by the Engineering Society.
 - Two FASE alumni members, preferably working at companies hiring through the ECC and preferably in hiring-manager positions, who shall serve 1-year terms, appointed by the Engineering Alumni Network.

This committee should receive student and employer feedback on a rolling basis, determine the long-term vision of the ECC, and liaise with the Director to ensure that this is materialised in the day-to-day operations.

19. Feedback should be collected and analysed by the Accountability Committee described above, in addition to the ECC Director. We recommend that this body:
- Have a contact person or e-mail who can accept feedback at any time,
 - That this contact be advertised on all major ECC materials and introduction sessions,
 - Work with the annual Engineering Society census to actively collect feedback.

20. All ECC staff should submit weekly timesheets to the Director, with a breakdown of what specifically they spent their time on that week. The Accountability Committee, in conjunction with the Director, shall review the timesheets at least annually to get an inventory of where the staff are spending their time. They should use this to streamline operations and reduce inefficiencies in staffing.

21. The ECC should create a Terms of Reference, outlining their organizational mandate, and scope of the various positions held by ECC staff.

22. The Director should no longer provide direct counselling to students. They should be an individual with business and engineering experience, whose focus is daily operations, business



development, human resources and keeping the ECC office running smoothly and on-budget. They should also act as a liaison between the Accountability Committee and employees where matters of performance are concerned. The AAC would recommend that the new director:

- Be a licensed professional engineer, with senior management or HR experience in engineering as an asset.
- Be prepared to build a working relationship with the Faculty of Applied Science, major corporate partners, and student organizations.
- Be prepared to work with student organizations such as the Engineering Society to address student concerns in future.
- Has experience managing organizational change.

23. All ECC full-time Counsellors have their P.Eng. and/or significant engineering industry experience, preferably also experience as a hiring manager.

24. The ECC should work with the You're Next Career Network and the Engineering Society to provide peer-counselling, and/or FASE alumni-counselling services to meet excess demand.

25. Grading of any material handed in for credit (e.g. PEY/eSIP reports) should be handled by teaching assistants (preferably for communications and design courses) rather than ECC staff.

26. Considering the significant proportion of ECC expenses in staffing costs outlined in Section 3, we recommend that the day-to-day duties of the 5 Internship Coordinators and Program Administrators be closely investigated by the Accountability Committee, to determine whether 5 Full-Time-Equivalent positions are warranted.

27. The ECC should hire staff for communication, employer support, outreach, and expanding the Career Portal in industries beyond ECE, as discussed in Sections 2.3 and 4.

28. ECC Evaluations by the Accountability Committee should occur at the beginning of first semester, the beginning of second semester, and the end of second semester. Evaluations should focus on offering suggestions for reform, and measuring the below metrics:

- Student satisfaction with services performed;
- The quantity of students reached and the quality of service provided;
- Employer feedback based on ECC interactions;
- The quality of its corporate networking, as determined by number of partners, including new partners, and number of jobs generated from these partnerships;
- The quality of communication between the ECC and students.



6 - SUMMARY OF STUDENT EXPECTATIONS

What follows is a summary of the problems reported in the AAC’s Fall 2016 ECC feedback survey, in addition to recommendations for the reformation of the ECC, as detailed and justified through the body of this document.

SECTION 1– CAREER PORTAL

Problem: 1.1. Insufficient Offer Deliberation Time	
Students are offered a two-day deliberation period in which they must decide to accept or reject an offer. This length of time is frequently cited as being inadequate to make a decision.	
Recommendation	Next Steps
1. Extend the deliberation time available to students to one week.	<p>Extending the length of the Offer Period to accommodate a one week longer deliberation time.</p> <p>Working towards a system where employers set their own deliberation period as needed.</p> <p>Allowing students to petition extended deliberation time under circumstances where they are considering an option outside the Portal as well.</p>
Problem: 1.2. Transparency in Ranking Position	
Students are not aware of potential employers preferences and as such are not able to make informed decisions on accepting or rejecting offers, particularly those found outside of the Career Portal.	
Recommendation	Next Steps
2. Improve the transparency of the ranking system.	<p>Allowing students to view if companies have ranked them 1st, 2nd, or 3rd in the Offer Period.</p> <p>A similar procedure is used at the University of Waterloo, where students and employers rank each other respectively and are</p>



	matched [6]. However, the presently proposed model would allow students to have the final choice in accepting positions.
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SECTION 2 – PROFESSIONAL DEVELOPMENT SERVICES

Problem: 2.1. Resume, Cover Letter, and Other Workshop	
Students reported that workshops provided for professional development and workplace transition lacked insight into industry, and were not delivered in a manner that is accessible, or useful.	
Recommendation	Next Steps
3. Integrate both professional engineers and experienced students returning from PEY or summer internships into workshops.	Ensure staff offering the workshops are professional engineers, or are experienced in engineering industry hiring processes. Facilitate workshops for returning students to share their experiences with younger students.
4. Hold more interactive sessions, where students can directly apply workshop material.	Facilitate 2-part workshops, in which: resume & cover letter development advice is offered in a lecture style; and industry professionals and FASE alumni give individual advice to students.
5. Ensure workshop facilitators are informed of current hiring practices, are engaged in workshop content, and can offer insight beyond basic tips.	Bring in guest speakers from industry that work in HR to resume development workshops.
6. Tailor content to the varying needs of different student groups.	Facilitate resume and cover letter workshops tailored to first and second year students, with a focus on translating school experiences to transferable work skills in preparation for third year.
7. Integrate industry networking in all forms of workshops.	Research and consult with HR professionals or FASE alumni in various industries that employ engineers, including manufacturing, technology,



	business, marketing, and research, to determine best practices in career development and targeted application tips for students looking to pursue opportunities in any of the above fields.
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Problem: 2.2. Company Info & Networking Sessions	
Students noted that the opportunities provided by the ECC lack diversity across disciplines, and that outreach to employers is insufficient, while also noting that many workshop facilitators lacked insight into industry. The opportunities sought out and offered by the ECC are not reflective of the demographic of students seeking professional development services.	
Recommendation	Next Steps
8. Incorporate engineering industry professionals into workshops, info sessions, and internship postings, and leverage these connections to update the content of services and expand outreach.	Allocate more resources towards, and develop professional connections with, industry professionals and engineering alumni members in all disciplines with the aim of improving the diversity of Portal jobs.
9. Improve the diversity of professional outreach to ensure representation in the Career Portal is more equal across all disciplines.	Improve communication between Undergraduate Department Chairs and the ECC, to build suggested job opportunities sent via email into PEY Postings.



Problem: 2.3. One-on-One Counselling	
<p>Students reported that while one-on-one counselling is often most useful to address individual needs, services offered by the ECC are superficial and, in some cases, blatantly unprofessional. Support is not standardized across various counsellors and, as previously noted, often reflects a lack of industry experience that is detrimental to the career search.</p>	
Recommendation	Next Steps
<p>10. Ensure counsellors are up-to-date with industry-specific engineering hiring practices, and are qualified to map out an engineering career.</p>	<p>Staff the ECC with individuals who possess professional engineering experience, or significant experience in engineering industry.</p>
<p>11. Improve logistics of scheduling and accommodating demand for counselling sessions.</p>	<p>Offer a peer-counselling service from post-PEY/eSIP students.</p> <p>Offer an FASE alumni-counselling service through the Alumni Outreach Network.</p>
<p>12. Improve accountability from counsellors to ensure they are maximizing available session times to students.</p>	<p>Ensure ECC counsellors are accountable for their responsibilities via the Accountability Committee proposed in Recommendation 18.</p>



SECTION 3 – FINANCIAL TRANSPARENCY

Problem: Budget Review	
<p>71% of students are highly dissatisfied with the fees they pay to the ECC, which, (according to the ECC operating budget the AAC obtained through the University of Toronto’s central FIPP Office) comprise the plurality of the ECC’s revenue stream. No attempts are made to diversify revenue streams to include corporate sponsorship. Payroll expenses are not detailed in the financial impact summary. Analogous career development organizations on campus, such as the You’re Next Career Network, are able to provide comparable career development services at no cost to students.</p>	
Recommendation	Next Steps
<p>13. Source more revenue from external sources, outside of student fees.</p>	<p>Improve corporate sponsorship of ECC workshops and networking opportunities, and leverage the extra revenue to reduce fees.</p>
<p>14. Lower student internship application and placement fees.</p>	<p>Alleviate the “placement” PEY fee for students who obtain PEY positions outside the Career Portal, and lower it for those who do obtain a position through the portal.</p> <p>Refund students who do not obtain a PEY after registering for the Career Portal.</p>



SECTION 4 – CORPORATE & EXTERNAL RELATIONS

Problem: 4. Corporate & External Relations	
<p>The structure of the PEY program lacks flexibility and limits both students and employers in their career/talent search. Moreover, an explicit lack of willingness to work outside the standard 12-16 month PEY structure has been unfavourably noted by students and employers, and has pushed potential business relationships away from the Faculty of Applied Science & Engineering.</p>	
Recommendation	Next Steps
<p>15. Improve flexibility of the PEY program.</p>	<p>Offer flexible internship starting dates.</p> <p>Enable internship opportunities outside of the current standard 16 month term.</p>
<p>16. Improve the experience of employers in hiring PEY students.</p>	<p>Reduce barriers for a company to participate in PEY.</p> <p>Consult with new companies to design a custom PEY program.</p> <p>Share grant and funding information available for hiring co-op students.</p>
<p>17. Maintain strong relationships with and be receptive to feedback from firms that employ PEY students.</p>	<p>Facilitate focus groups with existing PEY employers, post-PEY students, and FASE alumni to quantify the “ideal PEY,” and use this template to help new PEY employers develop PEY programs.</p>



SECTION 5 – STRUCTURE AND ACCOUNTABILITY

Problem: 5. Structure & Accountability

Self-binding accountability mechanisms are lacking in the ECC, which has limited their potential to collect and implement feedback to improve engagement with current students. Given the current motion towards hiring a new ECC Director, the AAC has outlined data-supported student expectations for the new director, and several organizational changes students would like to see from the updated ECC in the recommendations below.

“Next steps” have been incorporated into the Recommendations here, as the scale and complexity of executing tactical changes in matters in organizational structure is outside the scope of this report.

Recommendations

18. An overseeing “Accountability Committee” shall be struck, reporting to Faculty Council, that should hold the ECC accountable and handle feedback received. We recommend it comprise:

- One faculty member, who shall serve a 3-year term.
- One staff member, appointed by the registrar’s office, who will be in charge of the logistics of the committee itself, keeping minutes and convening meetings.
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- Be prepared to work with student organizations such as the Engineering Society to address student concerns in future.
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- The quantity of students reached and the quality of service provided;
- Employer feedback based on ECC interactions;
- The quality of its corporate networking, as determined by number of partners, including new partners, and number of jobs generated from these partnerships;
- The quality of communication between the ECC and students.



REFERENCES

- [1] Engineering Career Centre. (Undated). *Internship Programs* [Online]. Available: <http://engineeringcareers.utoronto.ca/internship-programs/>
- [2] *Academic Advocacy Committee*. “Engineering Career Centre (ECC) Survey.” *Online Survey*. (October, 2016).
- [3] Engineering Career Centre. (Undated). *PEY Student Guide 2017-2018* [Online]. Available: <http://engineeringcareers.utoronto.ca/files/2012/07/PEY-Student-Guide-2017-2018.pdf>
- [4] Engineering Career Centre. (Undated). *Engineering Summer Internship Program 2017 Student Guide* [Online]. Available: <http://engineeringcareers.utoronto.ca/files/2016/09/eSIP-Student-Guide-2017-1.pdf>
- [5] *The You're Next Career Network*. “YNCN Census Data.” *Online Survey*. (2014)
- [6] William M. Tatham Centre for Co-operative Education & Career Action. (Undated). *Ranking and matching system* [Online]. Available: <https://uwaterloo.ca/hire/recruit-waterloo/ranking-and-matching-system>
- [7] Anonymous. “PEY Position Follow-up.” Personal Email (12/2/2016).
- [8] Anonymous. “Re: Announcement - Staffing change in the Engineering Career Centre.” Personal Email (09/21/2016).



APPENDICES

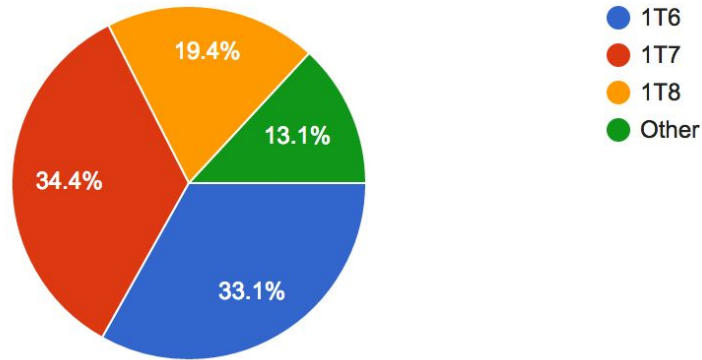
Appendix A – General ECC Feedback Survey Data

Appendix B – Career Centre Benchmarking Spreadsheet

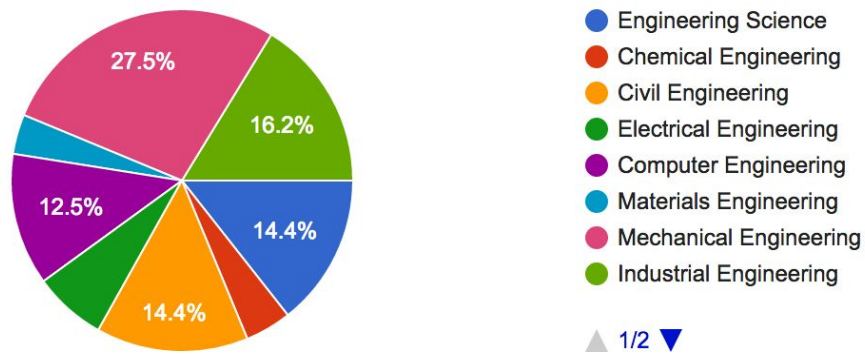


APPENDIX A – GENERAL ECC FEEDBACK SURVEY DATA

Please state your year (160 responses)

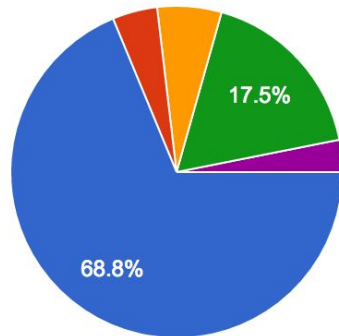


Please state your discipline (160 responses)





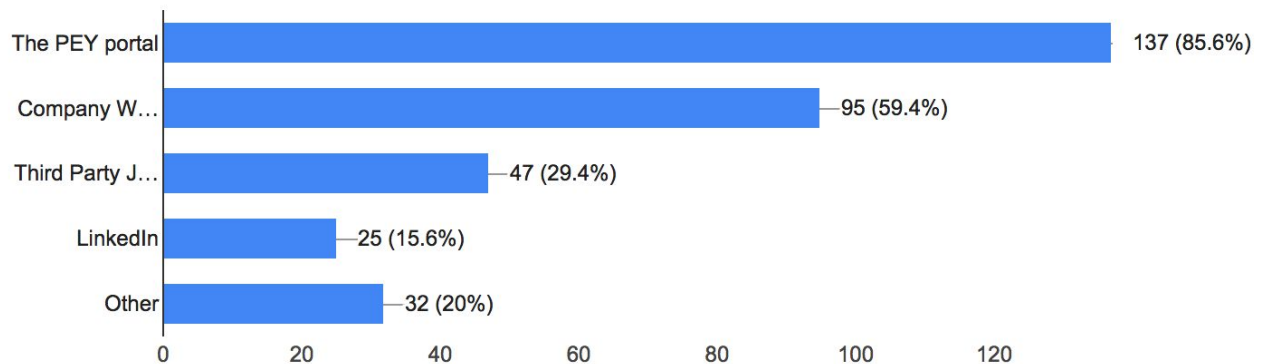
Did you go on (or are you on) PEY/eSiP/Internship? (160 responses)



- Yes! I paid the the registration and placement fees to the ECC
- Yes! But I didn't go through the ECC, I took time off school and ended up working
- No. I paid the registration fee through the ECC but didn't get a placement.
- No. I am currently in the process of applying for PEY/eSiP Jobs
- Other

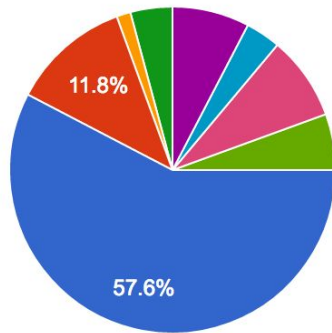
What is/was your main method to search and apply for PEY jobs (check all that apply)

(160 responses)



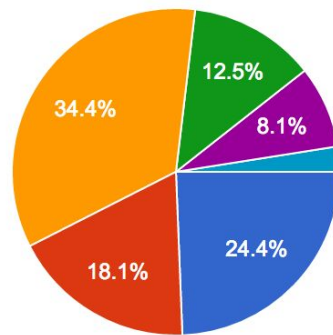


Were you able to find a job placement? (144 responses)



- Yes, I used the ECC Job Portal to find my PEY Job
- Yes, I applied to the job listing outside the ECC Job Portal
- Yes, I used an Industry Connection...
- Yes, I used an Industry connection /...
- Yes, I used an Industry connection /...
- Yes, I used a family/personal conne...
- No, I did not find a job placement
- Other

Please approximate how many hours you have spent using the ECC's in-person services (Career Counselling, Workshops, Cover letter help etc). (160 responses)

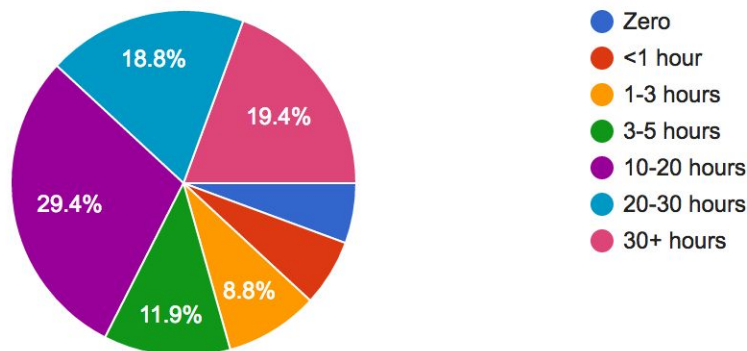


- Zero
- < 1 hour
- 1-3 hours
- 3-5 hours
- 5-10 hours
- 10-20 hours
- 20+ hours



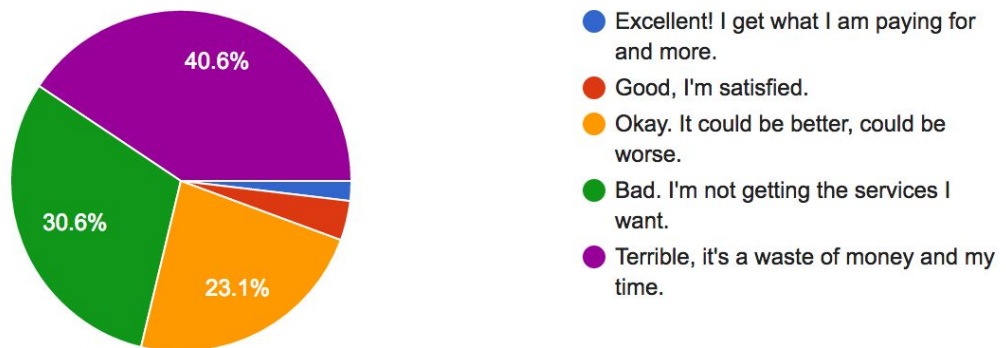
Please approximate how many hours you have spent using the ECC's online services (Job Portal, Website etc.).

(160 responses)



How do you feel about paying fees to the ECC in return for services such as Advising, Resume/Cover letter help and access to the Job Portal?

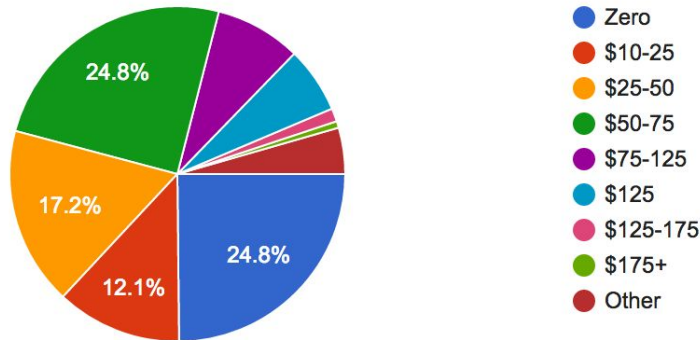
(160 responses)





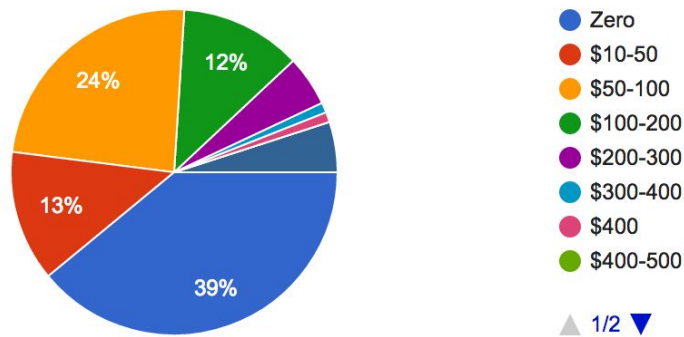
The PEY programme currently charges \$125 for access to the portal and to register. How much do you feel would be a reasonable amount to pay for the services rendered?

(157 responses)



The eSIP programme currently charges \$125+275 for access to the portal and to register an internship respectively. How much do you feel would be a reasonable amount to pay total for the services rendered?

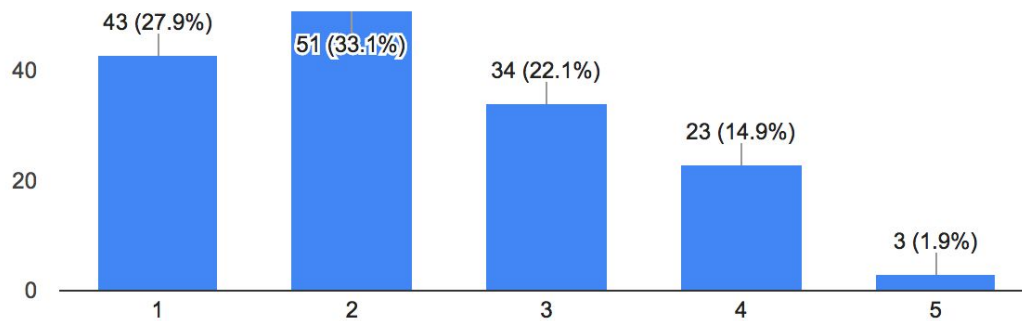
(100 responses)





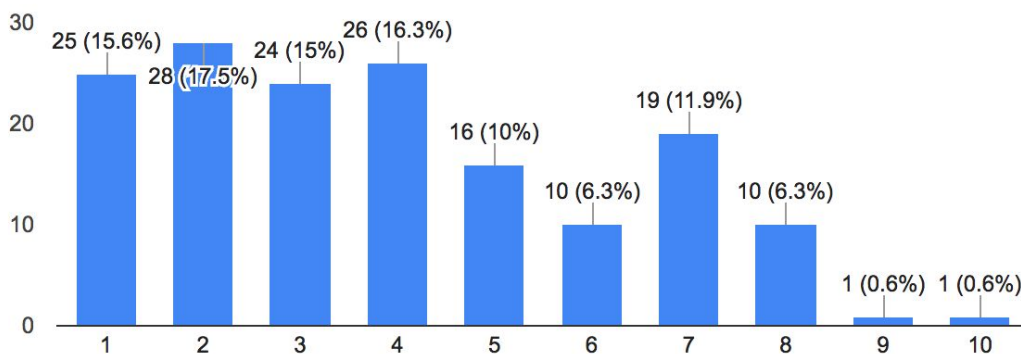
How do you rate the proficiency, helpfulness and professionalism of the ECC Career Counselors on a scale of 1 to 5?

(154 responses)



Please rate your overall experience with the Engineering Career Centre (ECC) on a scale of 1 to 10.

(160 responses)



APPENDIX B – GENERAL ECC FEEDBACK SURVEY DATA

Table 1. A Comparison of Different Career Centres Run by Universities

	U of T Engineering Career Centre (ECC)	U of T Career Learning Network (CLN) and Career Centre	U of T Rotman Career Centre	Waterloo Co-op Education & Career Action (CECA)	Engineers Without Borders
Contact	http://engineeringcareers.utoronto.ca/	https://cln.utoronto.ca/home.htm careercentre@mail.careers.utoronto.ca	rotmancommerce.careers@utoronto.ca	Current Waterloo Co-op students: T. Tsang and Z. Pei https://uwaterloo.ca/co-operative-education-career-action/	Current Career Outreach: Ijaz Peerbo utoronto@ewb.ca
Mission/Goals	The Engineering Career Centre (ECC) serves to prepare all undergraduate engineering students for their future careers.	Our mission is to engage, empower and support students, prospective students and recent graduates as they explore and create life goals that integrate career planning with academic studies, and co-curricular and personal pursuits. Working with strategic partners, we offer career education and experiential opportunities, which foster career clarity and build skills and lifelong competencies.	Our approach to career education is guided by the belief that your professional goals should take centre stage during your MBA. This is why we schedule a full week dedicated to career preparation, offer over 100 hours of career workshops and skill-building sessions throughout your course of study, and work closely with Rotman’s industry clubs to connect you directly with top employers.	> Mission: Inspire UWaterloo students to connect to the possibilities in a continuously changing world of work. Enable them to bridge their academic and workplace knowledge. Challenge them to learn, grow and contribute wherever they go. > Vision: Demonstrate innovative, global leadership in co-operative education and career development, and position UWaterloo as a top choice for students and employers. > Guiding Principles: Business and Culture	EWB UofT is striving to address social injustices where there are difficult constraints, diverse stakeholders, and no clear solutions. We do this by offering a year long curriculum to our members to give them fundamental knowledge of global development. We then support them in applying this knowledge through ownership of socially impactful projects in Canada or overseas. EWB operates at U of T to grow leaders that will have a positive impact on failing social systems across the world.
Events	Events Calendar: Cover letter and resume review everyday	Events: >Information sessions for different companies >Career Exploration Workshop >LinkedIn Lab Workshop >Workstudy Position WorkShops >Interview Workshop >Event Planning Workshops & many, many more	>Resume Workshops >Industry Professional Panels >Industry Clubs >Interview Prep >Specialized training for the main rotman specializations	> Career Fair with 220+ companies, organized by the Partnerships for Employment (P4E), a partner of the University of Waterloo. > Specific events such as negotiating offers, work in another culture, resume tip: think like an employer, success at work > Employer information session about 1-3 per day	>Career events are a new initiative this year (no career events yet) >EWB Junior Fellowship Canada >Community Projects 101 >Project Incubator
Fees	\$900 Placement Fee	Free for students, alumni, graduates, faculty, and employers	Free for students	614 per term including access to Jobmine (the job search portal) and CECA support	>Free for students
Communication	Mailing List	Website	Website Portal	Website	Website

Tools Used	Website Links to social media from website: Vim(last updated: 4 years ago) Flickr(Last updated: 6 years ago)	Facebook Twitter	Facebook		Mailing List Facebook
External Relations		>They do not partner with companies. >Any company is permitted their job offers, panel sessions, workshops and events on the website for free >As a result, Career Learning Network has job listings from Tesla, Arista, Yelp, TripAdvisor and many , many more.	>Kind of like CLN	6,300+ organizations 19,300+ job postings 60+ countries worldwide > Canadian Association For Co-op Education (CAFCE) > Canadian Association of Career Educators and Employers (CACEE) > World Association for Cooperative Education (WACE) > National Association of Colleges and Employers (NACE) > Co-operative Education & Internship Association (CEIA) > Education at Work Ontario (EWO) > American Association for Engineering Education (ASEE/CED)	>EWB Ventures from all around the world e.g Ghana, Uganda, Zambawi
How they are able to contact companies		>Research companies that they are interested in due to supply gap >Emails, calls			>Cold emails/calls >Ask people who previously did PEY and have connections with a certain company to speak with that company and provide relations.

Table 2. A Comparison of Different Career Networks Run by Students/External Organizations

	U of T You're Next Career Network (YNCN)	U of T Rotman Commerce Bridge	U of T Women in Science and Engineering (WISE)	U of T Volunteer Engineering Experience Program (VEEP)	
Contact	https://www.yourenext.ca/ https://www.facebook.com/UofTYoureNext/contact@yourenext.ca	https://rotmanbridge.com/rc.bridgeinitiative@gmail.com	President: Belinda Zhang info@wiseuoft.org	http://www.uoftveep.com/contact.html	
Mission/Goals	> Provide opportunities to students through career development programs, as well as corporate and startup career opportunities.	>The Bridge Initiative aims to build a collaborative community within RC to advance our collective career development as one professional network. We are connecting the brightest minds within Rotman to share their career resources with you, and we are here to help you thrive .	>Our mission is support and empower women to harness their unlimited potential as strong engineers, scientists and leaders. The University of Toronto's Women in Science and Engineering (WISE) mandates to provide an enriched experience for women in the fields of science and engineering. WISE provides exciting opportunities with the aim to cultivate a safe environment for growth in both the academic and professional fields.	VEEP provides real-world technical projects sponsored by local not-for-profit organizations for engineering students to tackle. Through this, we realize our vision by bettering both the student and not-for-profit communities.	
Events	Fall Career Fair Winter Career Fair Company Spotlights Startup Career Expos Resume Hackathons Entrepreneurship Week Alumni Mentorship Program Student Dev Office Hours (Monday BA4010 6-7PM)		Wise National Conference Wise x Microsoft Tech Talk Wise x TD Recruitment Wise x Altera Technical Interview Wise x Sapient Nitro	Software Project Product Design Project Engineering Strategy Project	
Fees	Free for students Companies pay for booths at career fairs	Free for students	Free for students	Free for students	
Communication Tools Used	Facebook Website Blog Mailing List	Facebook Website Google Plus Email Blog	Facebook Website Mailing List	Facebook Website	
External Relations	> Working with over 3000 students	> Compile a list of all the business	>Partner with companies such as	>Partner with non for profit	

	<p>and 100 companies a year</p> <ul style="list-style-type: none"> > Maintain connections with professionals in a wide range of fields, including engineering, finance, and computer science > Seek to connect students with the most prestigious companies, including Pepsi, Google, Facebook, Altera, Samsung, P&G and many others. 	<p>job listings to ease the job hunting process for business students</p>	<p>Altera, Microsoft, Samsung, Unilever etc.</p> <ul style="list-style-type: none"> > Have professional development programs that seek to connect students to sponsor companies. These programs seek to help students with internships, PEY and jobs after graduation. > Have a national conference that includes various speakers from the STEM industries and includes workshops, networking events and a career fair 	<p>organizations to receive projects</p>	
<p>Team Composition</p>	<p>Corporate Startup Student Development Product&Tech Marketing Executives</p>		<p>Wise National Conference Professional Development Mentorship High School Outreach Community Outreach</p>		
<p>How they are able to contact companies</p>			<ul style="list-style-type: none"> >From Belinda: “We usually just cold email companies asking if they'd like to sponsor us or partner with us on networking events We have a sponsorship package that we send out detailing what we do, previous events, attendance, etc” 	<ul style="list-style-type: none"> >Personal Connections >Cold emails to a list of companies provided by the EngSoc Community Outreach Directorship >Lots of Googling >Charity Aggregator Websites 	

Summary of Tables 1 & 2:

- ECC only has 9 staff, while Waterloo has over 169 including student experience manager and region-specific coordinators. (Note their co-op office is not engineering-specific).
 - More student support staff
- Career Learning Network doesn't do a lot of outreach, only when there is a huge demand
 - Does ECC perform outreach?
 - VEEP accesses a list of industrial partners compiled by EngSoc
 - Ask EngSoc for more info?
 - Community outreach directorship
 - More employer-friendly
 - Better user interface
- ECC should advertise the students' potential more
 - E.g. Waterloo website, "Why Hire Waterloo Students"
 - Statistics
- ECC should have more follow ups, not necessarily by staff but also upper year students
 - Feedbacks on work regularly
 - Regional coordinators
- More cooperation with external organizations such as the Canadian association of career educator and employers
- ECC should hold more specific events (such as negotiating offers, work in another culture, resume tip: think like an employer, success at work)
 - CLN does this
 - We do not want info on resume building that we can easily retrieve from google
- Students need someone with somewhat engineering/technology background who ACTUALLY understand the students' positions.
- ECC needs a clearer division/organization structure so students know where to get help when needed
- Better communication tools
 - Social media links posted on ECC website are seriously outdated (facebook last updated in 2013, flickr in 2010, vim in 2012)

Table 3. A Comparison of Different Career Centers in Other Canadian Schools

	Ryerson	Queens	McMaster	McGill Engineering Career Centre	UBC
Contact	careerboost@ryerson.ca 416-979-5000 ext. 4186 hire@ryerson.ca 416-979-5177	mycareer@queensu.ca P 613.533.2992 F 613.533.253	studentsuccess@mcmaster.ca 1 (905) 525-9140	http://www.mcgill.ca/careers4engineers/ 514-398-8100	eng.coop@ubc.ca 604-822-3022
Mission/Goals	<p>Mission: To empower all Ryerson students to maximize their potential as skilled professionals, ready to develop meaningful careers.</p> <p>Values:</p> <p>Continuous Improvement & Innovation Anticipating changing market and student needs, we continuously evolve, regularly assess, and rigorously evaluate all that we do.</p> <p>Community Engagement We actively seek to expand and strengthen external connections to create greater opportunities for students and professionals to meet and collaborate.</p> <p>Equity, Diversity & Inclusion Diversity enriches society and we strive to build programs that increase accessibility, build distinct partnerships and provide expertise for equity-seeking groups.</p> <p>High Impact Experiences We purposefully engage with students to create transformational, high-impact experiences that connect their curricular and co-curricular learning.</p> <p>Operational Excellence We are committed to implementing agile and fiscally responsible processes to effectively support our students and partners.</p>	<p>We are the central provider of career education and employment support services at Queen's University for undergraduate, graduate students and recent alumni from all disciplines. We offer a comprehensive range of accessible services to support and empower students in making informed decisions about their career, further education and employment goals.</p>	<p>Our Vision: To be a recognized centre of excellence that inspires all McMaster students know themselves, explore their potential and contribute to the prosperity of their community.</p> <p>Our mission is to engage students and alumni in diverse learning opportunities to support their academic, personal and professional growth.</p> <p>>Side Note: their career centre is merged with their student success centre, do not know which statements on website are for the success centre or career centre</p>	<p>>N/A</p>	<p>VISION</p> <p>To continue to be recognized as the leading and largest Engineering Co-op Program in Western Canada by being the first choice amongst students, employers and the university community.</p> <p>MISSION</p> <p>Our team is dedicated to integrating Engineering Co-op students' experiential learning through relevant, technical, paid Engineering Co-op work experience and engineering academic courses by providing high-quality service to students, employers, and the university community.</p> <p>CORE OBJECTIVES</p> <p>PREPARE Provide Engineering Co-op students with professional employment skills to increase confidence and success in the work force.</p> <p>LIAISE Maintain and strengthen relationships between UBC Engineering Co-op students, employers and the university community through commitment towards excellence in stakeholder relations.</p> <p>EMPLOY Facilitate all aspects of the co-op recruitment process. Provide students with the opportunity to explore various career paths by finding and providing relevant, technical and paid engineering co-op work opportunities locally,</p>

					nationally and internationally. COUNSEL Support and assist UBC Engineering Co-op students in job search activities and co-op work term experiences to ensure meaningful learning outcomes. EVALUATE Obtain and assess stakeholder feedback to continuously improve upon the operational model, policies, procedures and curriculum of the UBC Engineering Co-op Program.
Events/Programs	<p>The On Campus Program is Ryerson's newly re-branded Work Study program, and provides our undergraduate students with hundreds of on-campus paid work experience opportunities each year.</p> <p>The Off Campus Program is a new work experience program aimed at supporting Ryerson's diverse undergraduate and graduate degree students /alumni and Ontario's growing businesses.</p> <ul style="list-style-type: none"> > Training Sessions >1-on-1 appointments >Resume, cover letter and personal branding workshops 	<ul style="list-style-type: none"> >Summer Opportunities Fair >Engineering and Technology Fair >Career Fairs >Career Skills Workshops >Information Sessions and Booths >Career Counselling >Drop-in appointments 	<ul style="list-style-type: none"> >Career Counselling >Career Planning Group >Career Development Workshops >Mosaic: work- study positions and summer jobs program >McMaster Hospitality Program: Part-time positions on campus >OSCARplus: the job portal >McMaster Library:has a selection of directories for company research in order to effectively target your job search. >McMaster Students Union: student government positions >Entrepreneurship programs >Career field externship programs >Final Year Recruitment Program 	<ul style="list-style-type: none"> >Engineering Internship Program <ul style="list-style-type: none"> 1) Can be 4, 8, 12 or 16 month long >Online Planning Profiles to tell students what activities to do in order to plan a successful career >Career Advising sessions >Drop-in appointments for career talk >Engineer mock interview days >Resume, business etiquette, salary negotiation, networking and interview workshops 	<ul style="list-style-type: none"> >Research Programs with scholarships and awards listed >International experience programs >Volunteer programs for on campus, off campus and international >Career advising programs >Mock interviews >Online and In-person career advising workshops >Mentorship programs with industry professionals >Global E-mentoring >Canada Summer Jobs program >Employer Informations sessions >Career Fairs
Fees					>There are workshop fees
Communication Tools Used	LinkedIn, Twitter, Facebook, Instagram, Youtube,Email, Website	Facebook,Twitter,Email,Website	Facebook,Twitter,Youtube,Instagram,Snapchat,Pinterest,LinkedIn	Website, Email	Facebook, twitter, youtube, pinterest
External Relations	Flipp, TIFF, CSIS,etc.	AIESEC,Canada Revenue Agency,Enbridge,Essar Steel Algoma,Flipp Hewlett Packard Enterprise Imperial,etc.	N/A	N/A	>Forestry and city of Vancouver joint programs for internships

<p>Team Composition</p>	<p>>Is made of two teams: 1) Staff is composed of 15 individuals, all with varying degrees like political science, human rights, social sciences, etc. 2) 21 students from all faculties, they make up administration and customer service, employer engagement and resume tutors</p>	<p>>No team link</p>	<p>>30 People, the team is divided into smaller teams that encompass:</p> <ol style="list-style-type: none"> 1) Management 2) Student Development 3) Career and Employment 4) International Student Services 5) Marketing and Communications 	<p>>8 staff members listed, including the dean</p>	<p>>17 staff members listed</p>
<p>How they are able to contact companies</p>	<p>>Has a mailing list for employers >Offers digital and non-digital advertising for branding for employers >Offers platform for companies to make networking events</p>	<p>>Sponsorship packages clearly listed >Information sessions and booths bookings offered >Career fair and events offered >Platform to make mock interviews</p>		<p>>McGill Mentorship program, where an industry specialist can mentor students. >Speaker Series for Employers >Clear instructions and tax credits forms >Advertise student clubs to recruiters that might be interested in specific clubs</p>	<p>>Have clear recruiting timelines and dates for employers >Have the sponsorship packages listed >Have Resources and Funding tab >Have an expected salaries table</p>

Table 4. A Comparison of Different Career Centers in Other US Schools

	Harvard Office of Career Services	MIT Global Education and Career Development	Cornell Engineering Career Centre	Stanford BEAM	Columbia Centre for Career Education
Contact	http://ocs.fas.harvard.edu/	https://gecd.mit.edu/	https://www.engineering.cornell.edu/resources/career_services/	https://beam.stanford.edu/	https://www.careereducation.columbia.edu/
Mission/Goals	The Office of Career Services is dedicated to educating, advising, and connecting students to opportunities for summer and post-graduation.	<p>GECD seeks to empower MIT students and alumni to achieve lifelong success through seamless access to transformative global experiences, comprehensive and holistic career services, and mutually beneficial connections with employers and with graduate and professional schools.</p> <p>Our goal is to engage students and alumni in self-discovery to craft lives that are intellectually challenging, personally enriching, and of service to the world.</p>	Cornell Engineering Career Center serves undergraduate and graduate students in the College of Engineering by providing resources for career exploration, development, and planning. We are also dedicated to building and maintaining relationships with employers seeking to recruit Cornell Engineering talent. Mission: inspire and empower Cornell Engineers to create lifelong career success.	BEAM (Bridging Education, Ambition, and Meaningful Work), is the student career education hub at Stanford University. Career Educators at BEAM connect students with the people and knowledge needed to help them explore career paths, identify and apply for opportunities, and cultivate personalized networks that shape their professional journey. CLEAR VISION 2020 https://beam.stanford.edu/about-us/our-story/vision-2020	The mission of the Center for Career Education (CCE) is to help students and alumni develop the key competencies necessary to make informed decisions and take the necessary steps to achieve their career goals. The Center establishes connections and facilitates interaction among undergraduate students, graduate students, alumni, employers, and organizations to generate opportunities that help students pursue their personal and professional objectives. The mutual goal of both faculty and the Center for Career Education is the education and success of students. By working together, faculty and CCE can ensure that students have the education they need to transition into the world of work.
Events/Programs	<p>Wintership A Winternship is an unpaid job-shadowing experience, lasting from one to 18 days during the winter break. Winternships allow students to observe and ask questions, gain hands-on experience, learn about an organization or industry, and build relationships.</p> <p>-Etiquette 101: Manners, Meals, and Mastering Conversation -Investment Banking 101 -Job search for int'l students -Evaluating and Negotiating Job</p>	<p>-MIT doesn't have coop programs; most students go on internships during the summer. Freshmen/Alumni Summer Internship Program (F/ASIP) The Freshmen/Alumni Summer Internship Program (F/ASIP) is a nine-month program starting in January of your freshman year. F/ASIP is a series of two classes that will teach you to find and secure an internship or other career-building opportunity for the summer after your first year at MIT. The course includes</p>	-Co-op program: 28 weeks minimum (a semester & a summer); usually Fall & following Summer, however, Spring/Summer or Summer/Fall are potential options for some students. Students are monitored by Cornell during first work term either by visit to work site or telephone interview. A member of our staff may visit on site during the first work term.	<p>-Expert in Residence -Know thyself: self assessments for students to help develop professional vocabulary etc -have career preparatory courses -online resources such as case questions, dossier-building, industry fact sheets, BEAM strategies guide -Life design lab</p>	<p>-industry showcases -region specific career fairs</p> <p>-Columbia Arts Experience (CAE): Spring-semester internships with arts organizations in New York -Columbia Experience Overseas (CEO): Summer internships in Amman, Beijing, Hong Kong, Mumbai, London, Seoul, Shanghai and Singapore -Kenneth Cole Community Action Program @ Columbia University Spring-semester internships with civic engagement oriented organizations in New York</p>

	<ul style="list-style-type: none"> Offers -Professional in residence (sign up for small-group discussion with professionals) -Careers fairs held together by multiple universities -Online resume templates and tutorials -Help student organizations manage their relationship with employers (in partnership with student groups) 	<ul style="list-style-type: none"> helping you figure out what kind of work matches your skills and interests and provides opportunities to network with F/ASIP and MIT alumni. -Linkedin Lab -Negotiating Job Offers -Effective CVs for academic job -Introduction to technical interview -Interview tips from companies 			<ul style="list-style-type: none"> -Alumni-Sponsored internships -Virtual Internship Program (VIP):Spring-semester project-based, virtual internships -Startup Internship Program (SIP): Spring-semester -Science Technology Engineering Program (STEP): Additional professional development and mentoring opportunities for students interning in the STEM fields. -Columbia Exploration Externship (CEE): Externship program held in New York during Spring Break week in a variety of different industries -Summer CCE Network (SCCEN) Student and alumni summer support networks for students living and/or interning in Boston, Los Angeles, San Francisco, and Washington, DC
Communication Tools Used	<ul style="list-style-type: none"> -Website -Twitter (active) -Blog (active) 	<ul style="list-style-type: none"> -Twitter (active) -Facebook(Last active Mar 2016) 	-Facebook(active)	<ul style="list-style-type: none"> -Facebook (active) -Twitter(active) -Linkedin(active) -Youtube(Last updated 4 months ago) 	<ul style="list-style-type: none"> -Twitter(active) -Instagram(active) -Facebook(active) -Linkedin(active) -RSS feeds available
External Relations	-Organize career fairs collaboratively with other top notch universities	iNet, a free internship network shared by MIT, Duke, Georgetown, Harvard, NYU, Northwestern, Rice, Stanford, UPenn, University of Southern California, and Yale.		-Have a specific Alumni tab on their website	
Team Composition	<ul style="list-style-type: none"> -Each advisor is responsible for a specific field (e.g. Finance, Environment, Engineering, Entrepreneurship). -A team of three staff dedicated to the campus interview program and employer relations. --30 staff 	<ul style="list-style-type: none"> -Digital communication specialist -Each advisor is a liaison to a set of departments -Employer Relations Coordinator --30 staff 	<ul style="list-style-type: none"> 7 staff listed -including employer relations manager 9 career peer advisors 	Dean's Office, Career Catalysts (networking and curriculum design), Career Communities (working with specific student communities such as freshmen), and Career Ventures(employer engagement and other events).	<ul style="list-style-type: none"> -Administration and Planning -Undergraduate Career Development -Graduate Student Career Development -Experiential Education -Employer and Alumni Relations -Alumni Career Services

How they are able to contact companies/Support for Employers	<p>“We can help you connect with students and recent alumni in the following ways...</p> <p>Advertise to Students Participate in Educational Programs Work with Student Groups Host an Employer Networking & Information Session”</p>	<p>-Employer connection program -Annual employer symposium “We offer plenty of other helpful resources, including Student Salary and Enrollment Data, MIT’s Recruiting Calendar, Tips for Advertising at MIT, Maps and directions for Traveling to Campus”</p>	<p>“FOR EMPLOYERS -Program Basics -Recruiting & Work Timeline -Employer Testimonials -FAQ -Cornell Co-ops in the News”</p>	<p>-Branding activities -allow employers to consult with industry specialists to streamline the hiring process</p>	<p>-CCE employer partnership program -host on campus interviews</p>
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Summary of Tables 3 and 4

1. Communications.
 - a. Most schools have active social media presence such as facebook, twitter, linkedin (even pinterest and snapchat) that keeps information updated and reaches students in time.
 - b. Communication is the key.
2. Student involvement in career centres.
 - a. Students are hired in career centres as peer counsellors (McMaster, Ryerson, Cornell)
 - b. Harvard helps student groups dedicated to career counselling and future planning.
3. Collaboration between schools
 - a. Top notch US schools hold career fairs collaboratively to gather the best resources for all students.
4. On-campus careers and research positions
 - a. McMaster Mosaic/Hospitality programs encourage on-campus work-study/intern positions
 - b. Research jobs are not advertised enough at U of T while other schools have dedicated research sections.
5. On-site monitor and support
 - a. Cornell staff visits co-op students on-site or conduct telephone interviews to ensure everything is in place.
6. Employer branding and support
 - a. Queen’s, MIT, Stanford, Columbia have clear sponsorship packages posted on website and employer support programs.
 - b. Stanford provides employers with the opportunity to consult.
7. Mission
 - a. Stanford has VISION 2020 for their career centre.
 - b. Ryerson has a detailed and decent mission.
8. Online resources
 - a. Queen’s and most US schools have online resume/cv resources, self-assessment checklists
 - b. ECC resources all require login
9. Advertising Diversity