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PEAK
REACHING NEW HEIGHTS

Report after Year 2 of the PEAK Program

1. Executive Summary

The Practice Evaluation and Knowledge (PEAK) program was established by PEO to promote continuing knowledge development and ethical practices among Ontario's professional engineers and limited licence holders while improving PEO's data on the practice profiles for its licence holders. The PEAK program was implemented as a regulatory initiative in PEO's proactive efforts toward protecting the public interest regarding regulation of the practice of professional engineering in Ontario. The program went live on March 31, 2017, on a voluntary basis. On April 30, 2019, the PEAK program completed its first cycle of operation; each cycle of the program is completed by PEO licence holders in a twenty-five-month period.

The four objectives of the PEAK program are (1) publishing program completion statuses, (2) promoting continuing knowledge development, (3) reacquainting PEO licence holders with their professional responsibilities, and (4) updating PEO's database of practice details for its professional engineers and limited licence holders.

Firstly, this report provides an overview of the program containing the guiding principles, elements and benefits of the program, a background review indicating its development history, and information and promotional resources available for operating the program.

Secondly, this report presents the participation rates and insights into the data collected by the PEAK program, like professional practice details and continuing knowledge development undertaken by Ontario's professional engineers and limited licence holders who voluntarily participated in the program.

Finally, this report provides relevant information for PEO Council as it considers whether to continue the PEAK program and, additionally, make the program a mandatory requirement for PEO licence renewal.

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2 Background

The PEAK program went live on March 31, 2017. PEO licence holders who are professional engineers or limited licence holders are asked to complete the program every year prior to their licence renewal date. This action entails a *practice evaluation* and an *ethics module* video. The practice evaluation comprises a *practice declaration* followed by a *practice evaluation questionnaire* for practising licence holders or *non-practising survey* for non-practising licence holders. However, program participants may complete these elements anytime, and as often as they need to, during the licence year. The annual completion statuses for these elements are shown on PEO's online directory of licence holders. This means that two things occur; firstly, the completion status will be reset every licence year to encourage annual participation and, secondly, the program elements will be shown as INCOMPLETE for those who do not complete these elements by their licence renewal date.

The first group of licence holders asked to participate were those sent fee renewal notices in April 2017. Since renewal notices are sent out approximately 60 days prior to the date of licence expiry, these notices were sent to licence holders with a May 31, 2017 licence expiry, or, rather, a June 01, 2017, licence renewal date. Every month, another group renews their annual licences. With practising PEAK program participants allowed twelve months to report their continuing knowledge activities every licence year, one operating cycle of the PEAK program lasts for twenty-five months. Therefore, the first reporting period ended April 30, 2019, which means that practising PEO licence holders ended the first full 12-month reporting window of the PEAK program on April 30, 2019.

PEO has engaged in an active and continuing communications campaign regarding the program. By May 31, 2019, PEO staff have provided presentations about the PEAK program to PEO chapters, engineering firms, technical associations and other interested groups. PEO councillors have attended some of these presentations and responded to questions and comments on the program. Staff have also responded to online and phone inquiries about the program.

3 Overview of the PEAK Program

3.1 Objectives of the PEAK program

The four objectives of the PEAK program are (1) publishing program completion statuses, (2) promoting continuing knowledge development, (3) reacquainting licence holders with their

professional responsibilities, and (4) updating PEO's database of practice details for its professional engineers and limited licence holders.

Publishing	Promoting	Reacquainting	Updating

3.1.1 *Publishing program completion statuses*

As matter of public interest, the practice status and participation status for each of the three elements of the PEAK program—the practice evaluation questionnaire, ethics module and reporting of continuing knowledge activities—are publicly posted on PEO's online directory of licence holders for every professional engineer and limited licence holder. Practice status and participation statuses are reset every licence year to compel licence holders to complete the program every year. Non-compliance with the program is publicly posted to read as an "undeclared" practice status or an "incomplete" status for the remaining elements.

The program was designed with this feature as an incentive to encourage licence holders to participate and provide credibility to the voluntary program.

3.1.2 *Promoting continuing knowledge development*

The PEAK program was designed to promote and gauge the continuing competence activities undertaken by professional engineers and limited licence holders with explicit focus on technical content that maintains or enhances their engineering competence.

Firstly, the program assigns a recommended number of hours to practising PEO licence holders towards continuing knowledge activities for the year. This recommendation is personalized for every practising licence holder based on their answers to a practice evaluation questionnaire and PEO's application of a risk-based methodology to generate the recommendation. This program rule encourages practising licence holders to actively pursue continuing competence activities every year in relation to their engineering practice disciplines and responsibilities. Non-practising licence holders are not assigned an annual recommendation.

Secondly, practising licence holders are urged to report to PEO the continuing competence activities they completed during the year using PEO's online reporting form. This program rule instills professional accountability among licence holders to pursue relevant competence activities and take the additional step to report them to PEO every year.

3.1.3 *Reacquainting licence holders with their professional responsibilities*

The ethics module element of the PEAK program was designed by PEO to reintroduce licence holders to their statutory, professional and ethical obligations to the public through an interactive learning format. Each ethics module is a refresher video addressing different topics while repeating salient topics for emphasis. However, each video was developed with examples and Q-and-A hurdle questions that serve as teachable moments to reinforce the topics covered by the video. Topics include provincial engineering legislation, professional and ethical conduct, continuing competence, conflict of interest, duty of care and PEO's practice guidelines and advisory information.

3.1.4 *Updating PEO's database of practice details on its licence holders*

The PEAK program helps PEO collect up-to-date practice details on its membership of licence holders. These practice details are vital to continuously deliver on the objectives of the program. Additionally, access to current practice details better positions PEO to more effectively carry out its regulatory activities in public service and protection in relation to the practice of professional engineering in Ontario.

3.2 Developing the PEAK program

PEO's Continuing Professional Development, Competence and Quality Assurance (CPDCQA) Task Force presented the concept for a comprehensive approach to continuing professional development and quality assurance in November 2015, as part of a proactive PEO approach in regulating the profession. The task force's recommendations were accepted by PEO Council and formed the basis for the implementation work by PEO's Continuing Professional Competence Program $(CP)^2$ Task Force which finalized the Practice Evaluation and Knowledge (PEAK) program.

At the time the PEAK program went live, PEO Council was not empowered with the authority to create regulations dealing with mandatory continuing education requirements and enforcement of those mandatory requirements. In fact, aligned with this lack of authority, Council affirmed a policy intent in September 2015 to ask the membership to ratify in a referendum any mandatory requirement to participate in a continuing professional development program. In November 2015, Council accepted the $(CP)^2$ Task Force's recommendation to postpone a referendum on a mandatory version of the PEAK program until the program had completed at least one year of operation.

Following the policy intent on a referendum, Council approved a policy intent in February 2016 to amend the *Professional Engineers Act* to provide PEO with the authority to create regulations dealing with mandatory continuing education requirements and enforcement of those mandatory requirements. A request to change the Act to accomplish this was made to the Ministry of the Attorney General. At the time the PEAK program went live, PEO was waiting for confirmation from the Minister that the changes would be made.

For these reasons, the PEAK program went live as a continuing competence reporting program that encourages PEO licence holders to participate yearly at their professional discretion—in other words, a voluntary program. Non-participation in the program does not affect their licence status; however, their participation status is posted on the public online directory of licence holders.

Since then, a December 2017 update to subsection 7(1)(27) of Ontario's *Professional Engineers Act* empowers PEO with the authority to create regulations dealing with mandatory continuing education requirements and enforcement of those mandatory requirements. However, at present, no changes exist to PEO's operational policies with respect to continuing education that make any part of the PEAK program mandatory or impose sanctions onto non-compliant licence holders. Subject to further decisions, Council's 2015 policy position still stands and requires a member referendum to ratify making the PEAK program, or any part of it, a mandatory requirement for PEO licensure or licence renewal.

In June 2018, Council accepted PEO's recommendation to postpone a decision to review the PEAK program or consider a mandatory version of the program until the program had completed at least one cycle of operation—once cycle of the PEAK program occurs over twenty-five months—since a review of the program after only twelve months would be premature.

Notable developments related to the PEAK program are itemized in Figure 1.

Figure 1. Notable developments around the PEAK program

2013 September	Report from Ontario Society of Professional Engineers on continuing professional development. The report recommended a mandatory continuing professional development program for PEO licence holders.
2014 March	Report on a review of the 2013 OSPE report from PEO's committee on professional standards.

2014 October	Report from the commission of inquiry into the collapse at the Algo Centre Mall in Elliot Lake, Ontario in 2012. The report recommended a mandatory continuing professional development program for PEO licence holders.
2015 September	Council affirmed a policy intent to ask the membership to ratify in a referendum any mandatory requirement to participate in a continuing professional development program.
2015 November	Report from PEO's Continuing Professional Development, Competence and Quality Assurance (CPDCQA) Task Force.
2016 February	Council approved a policy intent to amend the *Professional Engineers Act* to provide the authority for mandating continuing professional development requirements for all licence holders, limited licence holders, and temporary licence holders.
2017 February	Recommendations for PEAK program constraints from PEO's Continuing Professional Competence Program (CP)^2 Task Force.
2017 March	PEO launched the Practice Evaluation and Knowledge program for professional engineers and limited licence holders to participate on a voluntary basis.
2017 December	Amendment to subsection 7(1)(27) of the *Professional Engineers Act* providing the authority for mandating continuing professional development requirements for PEO licence holders.
2018 June	PEO's report on Year 1 of the PEAK program. Council directed PEO to plan for Year 3 of the PEAK program.
2018 November	PEAK program policy for chapter event advertising.
2019 April	Jury's verdict from the coroner's inquest into the death of Scott Johnson in 2012. The verdict recommended an annual, mandatory continuing professional development program for PEO licence holders.
2019 April	Report from PEO's external regulatory review. The report recommended a mandatory continuing professional development program for PEO licence holders.
2019 June	PEO's report after Year 2 of the PEAK program.

PEO initiatives on continuing competence for Ontario professional engineers and limited licence holders prior to implementing the PEAK program are illustrated in Figure 2.

Figure 2. The path to the PEAK program

3.3 Principles of the PEAK program

The November 2015 final report by PEO's CPDCQA Task Force outlines the six guiding principles for a continuing professional development and quality assurance program. These guiding principles formed the basis for work and recommendations by PEO's (CP)[2] Task Force to aid PEO in implementing the PEAK program.

1. **Be necessary to improve regulation**
2. **Be relevant for practice activities**
3. **Be pragmatic**
4. **Recognize diversity of practitioners**
5. **Be scalable and proportional to risk to the public**
6. **Be effective**

3.3.1 *CPD program must be necessary to improve the regulation of professional engineering*

The CPDCQA Task Force established a need for a CPD program based on protecting the public interest and not on member self-interest. PEO would not implement a CPD program that is essentially "window dressing" and that no program would be put in place solely for PEO to say they have a program.

3.3.2 *CPD program requirements must be relevant for practice*

The CPDCQA Task Force concluded that a CPD program's requirements would be relevant to the practice of professional engineering and done in the interest of safeguarding public health, safety, welfare and the environment.

The task force established the need for a CPD program's requirements would be tied to the engineering services provided by the practitioner and the skills and knowledge needed to perform that work, and therefore, not allow licence holders to acquire CPD credits for activities unrelated to the practice of professional engineering.

3.3.3 *CPD program must be pragmatic*

The CPDCQA Task Force established the purpose of a CPD program would be to ensure that individual licence holders maintain a level of knowledge and skill commensurate with safeguarding public health, safety, welfare and the environment.

The task force concluded that any need for licence holders to expand and gain greater expertise and competence in their areas of practice, as was recommended in the 2014 commissioner's report from the inquiry into the 2012 Algo Centre Mall collapse in Elliot Lake, is unnecessary since such a need would be driven by employers or market forces particularly where licence holders work at the leading edge of science and technology.

3.3.4 *CPD program must recognize diversity of practitioners' needs and resources*

The CPDCQA Task Force established the need for a CPD program that recognizes the diversity of both engineering practices and member demographics. The CPD program would be aimed at improving knowledge and skills utilized in practice and would accommodate different methods of skills and knowledge delivery. The CPD program would allow individual licence holders the opportunity to design their CPD plan to align with their area of practice and the available professional development opportunities.

Also, the program would treat practising and non-practising licence holders equally but differently. Non-practising licence holders would not be administered a CPD requirement. However, non-practising licence holders who wish to continue to hold a licence that provides practice rights, even if they do not exercise those rights, would have to be reminded they have the same benefits and obligations as those practising. For instance, non-practising licence holders must understand that, even though they are in a non-practising capacity, any act or statement made by them when they

identify themselves as licence holders is subject to the same duty of care as a practising licence holder.

3.3.5 *CPD program requirements must be scalable and proportional to risk to the public*

The CPDCQA Task Force concluded that any CPD requirement would be correlated to the amount of risk to the public presented by the individual licence holder through the licence holder's practice details. The risk attributable to a practising licence holder is often mitigated through the implementation of risk management measures within firms and industry or through oversight of the work by regulatory authorities. To establish the CPD requirement that is based on the practice risks presented by the individual licence holder to the public, the practising licence holder would complete an informal practice review.

3.3.6 *CPD program must be effective*

The CPDCQA Task Force recommended that any CPD program would be developed to be effective at achieving the goals of the program and have a means for determining whether the program was effective. This principle requires PEO to provide assistance to licence holders to complete the program as well as determine their individual CPD requirements and locate suitable means of complying with those requirements. This principle also requires PEO to include mechanisms in the program to incite licence holders to complete the program.

3.4 Beneficiaries of the PEAK program

The beneficiaries of the PEAK program are the public, PEO, and licence holders and employers.

1. **Public**
2. **Regulator**
3. **Licence holders and employers**

The PEAK program was established as a regulatory initiative in PEO's proactive efforts toward protecting the public interest. The program promotes continuing knowledge development and ethical practices among Ontario's professional engineers and limited licence holders while improving PEO's data on the practice profiles for its licence holders. The program publishes on PEO's online directory the participation status for every Ontario professional engineer and limited licence holder in the program. The program was designed in the public interest to promote

continuing professional development and ethics practices among Ontario's professional engineers and limited licence holders.

3.4.1 *Public*

The public is provided with an online tool to search for PEO licence holders to confirm their practice declaration and PEAK program completion statuses for the current licence year because the PEAK program publishes the participation status for every Ontario professional engineer and limited licence holder in the program; a program designed for the public. Via the directory, the public can confirm whether a licence holder voluntarily completed the program that year—publicly declaring their practice status, pursuing continuing professional development focused on technical engineering knowledge and reporting those activities to PEO, and watched PEO's ethics refresher video.

3.4.2 *Regulator*

PEO needs data on the individuals licensed and engaged in the practice of engineering and firms providing those engineering services in PEO's jurisdiction to more effectively carry out its duties as the provincial regulator for the practice of professional engineering.

The PEAK program provides PEO with data on four items: (1) practice status for licence holders; (2) how practising licence holders carry out their practice activities; (3) which licence holders watch PEO's ethics module videos; and (4) what continuing professional development is undertaken by practising licence holders to maintain a level of knowledge and skill commensurate with safeguarding public health, safety, welfare and the environment as that knowledge and skill relate to the engineering practice activities they perform.

3.4.3 *Licence holders and employers*

Because the PEAK program publishes the participation status for every Ontario professional engineer and limited licence holder in the program, this public posting of licence holder participation serves the licence holder as a secondary benefit.

When a licence holder completes their PEAK program elements, a COMPLETE posting would be seen by the public, including peers, colleagues and clients as a positive and professional action by the licence holder. Additionally, employers benefit from the positive recognition associated with having staff who are licence holders participating in a regulator's program designed for the public.

3.5 Elements of the PEAK program

The PEAK program consists of three elements: a practice evaluation (declaration and questionnaire); an ethics module; and a continuing knowledge declaration (reporting). The program is hosted online, and licence holders access it through PEO's member portal. The elements of the PEAK program are presented in Figure 3. The typical time expected to be spent by PEO licence holders to complete the PEAK program every year is presented in Figure 4.

Figure 3. Elements of the PEAK program

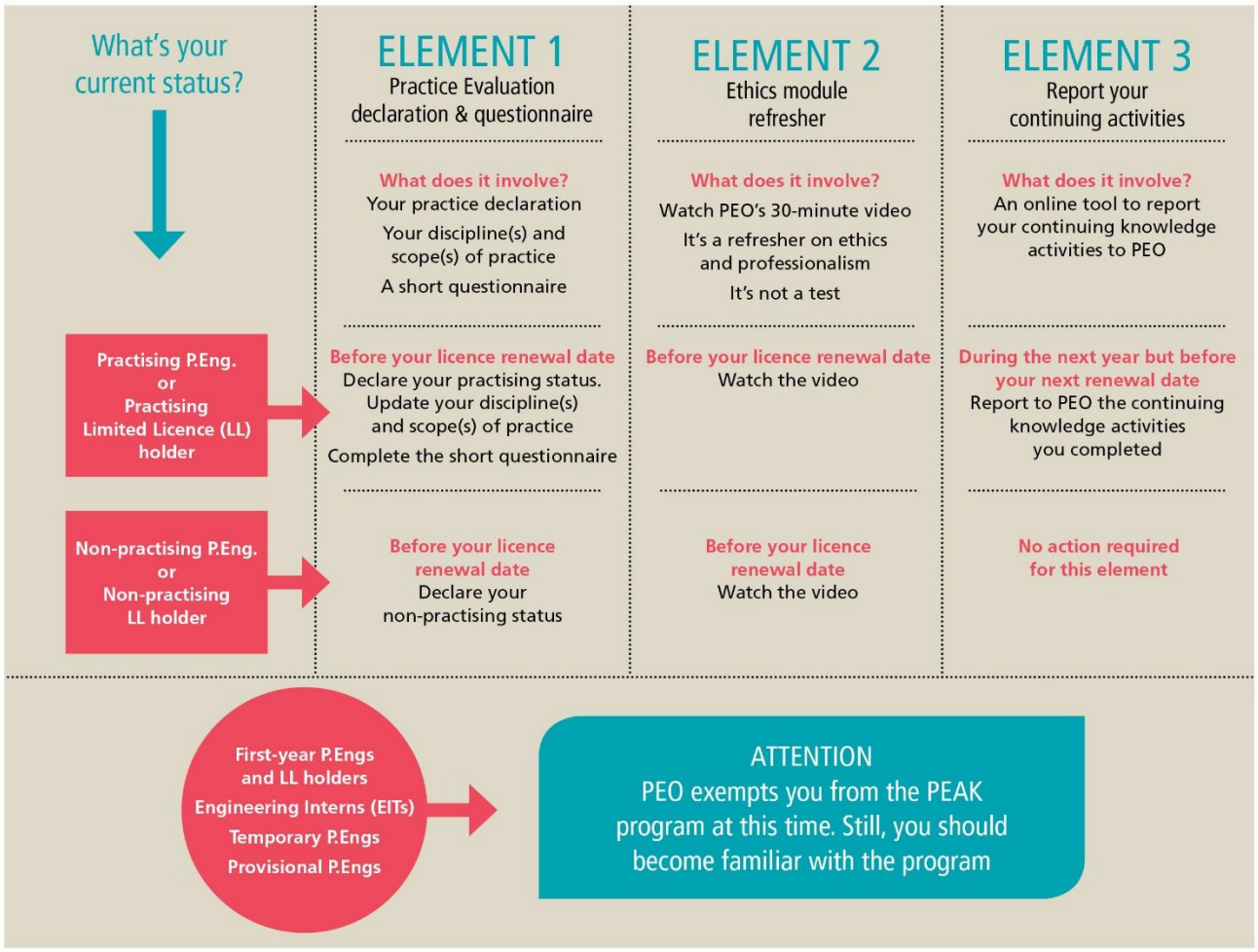


Figure 4. Typical times spent to complete the PEAK program every year

TYPICAL TIME SPENT ON THE PEAK PROGRAM EVERY YEAR	**60 minutes for PRACTISING licence holders.** **30 minutes for NON-PRACTISING licence holders.**

The due dates associated with the elements of the PEAK program for the typical licence year are presented in Figure 5.

Figure 5. PEAK program due dates and timelines

3.5.1 *Practice Evaluation*

All licence holders are asked to declare their practising status. A PEO licence holder is practising engineering when they satisfy the definition as described in the *Professional Engineers Act* (summarized in Figure 6) and their professional practice activities—including work, volunteer and pro bono projects—are carried out or provided to parties in Ontario.

Those who identify as practising are asked to complete a practice evaluation questionnaire before their licence renewal date. The practice evaluation questionnaire comprises a series of short questions on their engineering practice environment.

Figure 6. The practice of professional engineering from the Professional Engineers Act for activities carried out, or for clients, in Ontario

Those who identify as non-practising are asked to complete a non-practising survey. The non-practising survey comprises a few short questions on their reasons for declaring a non-practising status and whether and when they expect to return to practise in Ontario. See the appendix for more information on the practice evaluation questionnaire and the non-practising survey.

PEO recommends that, every year, licence holders (practising and non-practising alike, including retirees) complete the practice evaluation when they receive their licence renewal notice, and before their renewal date.

3.5.2 *Ethics Module*

The ethics module is an interactive, refresher video to help reacquaint licence holders—practising and non-practising—with their ethical and professional obligations as described in the *Professional Engineers Act*. The content covers a variety of subjects including: the regulatory role of PEO, a review of the legal and ethical obligations of licensure, professional misconduct, and the licence holder's duty to report. The module also reminds licence holders how these obligations should be applied to real-life situations. It is not a test and does not require any preparation or study before completing it. See the appendix for topics covered by each of the ethics module videos available to all Ontario professional engineers and limited licence holders.

PEO recommends that, every year, licence holders (practising and non-practising alike, including retirees) watch the PEAK ethics module when they receive their licence renewal notice, and before their renewal date.

3.5.3 *Continuing Knowledge Declaration*

Based on their responses to the practice evaluation questionnaire, practising licence holders receive a recommended number of hours for continuing knowledge activities (up to 30 hours) to complete during the forthcoming licence year. Practising licence holders create their own learning plans that focus only on technical knowledge activities relevant to their scopes of engineering practice. See the appendix for more information on the risk-based approach used to assign recommended hours toward continuing knowledge activities to practising professional engineers and limited licence holders.

The PEAK program recognizes these activities undertaken by a variety of delivery methods which are grouped according to three categories: formal education, informal education and contributions to knowledge. The acquisition of engineering knowledge counts under the formal and informal

education categories while the sharing of engineering knowledge counts under the contributions to knowledge category.

Formal education refers to the learning component of continuing knowledge activities provided in a structured layout during or at the end of which the participant is assessed to confirm the participant sufficiently understood the material that was presented. *Informal education* refers to the learning component of continuing knowledge activities completed by a participant and where no assessment exists to confirm the participant sufficiently understood the material that was presented. *Contributions to knowledge* refers to the instructional component of continuing knowledge activities provided by subject matter experts on technical and regulatory topics for the engineering community regardless of the involvement of an assessment to confirm the audience sufficiently understood the material that was presented. See the appendix for more information on continuing knowledge activities and examples of activity types for each of these three categories.

PEO recommends that, every year, practising licence holders report the continuing knowledge activities they completed for the licence year using PEO's online reporting form by the end of the licence year.

3.5.4 *Statuses*

Participating in the PEAK program is not mandatory to maintain or renew a PEO licence. However, non-participation by the due dates assigned to the licence holder will be reflected publicly on PEO's online directory of licence holders as an "undeclared" practice declaration or an "incomplete" element for each of the three elements of the program. Updates to the completion status for each element of the PEAK program are reflected on the directory for the next business day. Participation statuses are reset every licence year. See the appendix for images of the online directory indicating what PEAK program information is posted publicly for every Ontario professional engineer and limited licence holder.

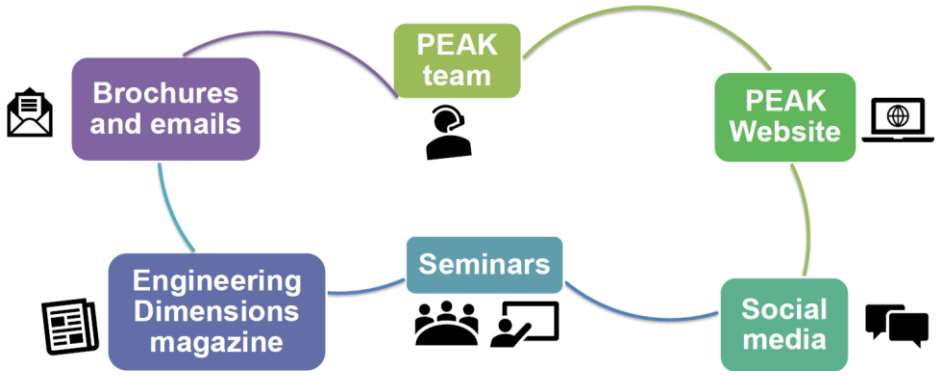
3.6 Resources available for the program

PEO has allocated resources for operating of the PEAK program. These resources are grouped under three types: informational resources, support resources and promotional resources. Together, these resources provide the public with details about the program and how it serves their interest, as well as assisting Ontario's professional engineers and limited licence holders with details about the program and how to complete it.

PEO has engaged in an active and continuing communications campaign regarding the program. By May 31, 2019, PEO staff have provided over 60 presentations about the PEAK program to PEO chapters, engineering firms, technical associations and other interested groups through a combination of in-person and teleconference seminars. PEO councillors have attended some of these presentations and responded to questions and comments on the program. Staff have also responded to over 2,000 online and phone inquiries about the program.

Figure 7 illustrates communications channels pursued by PEO to inform the public and licence holders about the PEAK program.

Figure 7. Communications channels for the PEAK program



A breakdown of information sessions delivered on the PEAK program is available in Figure 8.

Figure 8. Delivery of PEAK program information sessions to date

Audience Type	Distribution of Audience Type
PEO chapters	**48%**
Engineering firms	**43%**
Municipal, provincial, regulatory and advocacy groups	**9%**

The resources that are available to the public and licence holders for the purposes of the PEAK program are presented in Figure 9.

Figure 9. Types of resources available for the PEAK program

Resource Name	Informational Resource	Support Resource	Promotional Resource
Web content	✓	✓	✓
Social media (Facebook, Linkedin, Twitter, YouTube)	✓		✓
Online member portal	✓	✓	
Brochures and flyers	✓	✓	✓
Dedicated staff (phone and email)	✓	✓	
Presentations to engineering firms, municipal and provincial teams, chapters and advocacy groups	✓	✓	✓

4. PEAK Program Data

A key objective of the PEAK program is to improve PEO's data about its licence holders by collecting relevant professional practice details and collecting these details at least annually. The program is achieving this objective as PEO's data collection has expanded and has been updated because of the program's annual incentive mechanisms. Admittedly, data collection is limited to licence holders who choose to participate in the voluntary program.

Through data collected by the PEAK program, PEO has access to insights into licence holder practice details. Here is a list of the direct insights currently available from PEAK program data about PEO licence holders:

- Self-reported practising status of licence holders engaged in the practice of professional engineering in Ontario or for clients in Ontario.
- Licence holders who watched PEO's ethics module.
- Continuing knowledge activities undertaken by practising licence holders.
- Self-reported engineering disciplines associated with practising licence holders.
- Self-reported scopes of practice for each engineering discipline associated with practising licence holders.
- Self-reported practice details from practising licence holders such as:
    1. Organizational structure of practice.

2. Engineering role within the organization.
3. Engineering standards.
4. External engineering reviews.
5. Internal engineering peer reviews.
6. Engineering quality management system.
7. Engineering outcome.
8. Technical certifications.
9. Membership in technical societies (PEO excluded).
10. Responsibility level.
11. Audits.
12. Practice improvements (lessons-learned program).
13. Experience within current area of practice.
14. Engineering mentorship or peer network.
15. Review of relevant technical information.
16. Reference library.
17. Industry updates.
18. Organizationally-provided training.
19. Breadth of practice.
20. Continuing professional development programs (outside PEO).

- Self-reported details from non-practising licence holders such as:
    1. Reason for identifying as non-practising.
    2. Enrolment in PEO's fee remission program.
    3. Duration as a non-practising licence holder.
    4. Intention to practise engineering again.
    5. Timeline to return to practise engineering again.

Additionally, by linking data collected by PEO at the time of licensure with data collected by PEO through the PEAK program, PEO now has access to more insights into licence holder practice details; such as the breakdown of all PEAK program data by age range, gender and chapter.

The voluntary nature of the PEAK program is a likely explanation for the participation rates of 33 per cent in 2017 and 21 per cent in 2018. Because on these participation rates for a voluntary program, validation of the collected data is required to identify how representative the data insights can be of all PEO licence holders. For comparison, the voting rates for PEO elections for the past three elections were 16 per cent in 2017, 13 per cent in 2018 and 12 per cent in 2019.

A mandatory version of the PEAK program would address concerns for full participation and confirm the collection of data as being fully representative because all Ontario professional

engineers and limited licence holders would be required to complete the program as a mandatory condition of PEO licence renewal.

4.1 Participation rates

4.1.1 *Overall*

In the first year of the program (2017), 33 per cent of eligible licence holders started the program. Of these participants, about 76 per cent declared they were engaged in the practice of professional engineering in, or for clients in, Ontario. About 91 per cent of these practising licence holders completed the practising questionnaire and received a recommended number of hours towards continuing knowledge activities for the year, 22 per cent of whom reported some continuing knowledge activities to PEO. Of the program participants that year, 60 per cent watched PEO's ethics module video.

In the second year (2018), 21 per cent of eligible licence holders started the program. Of these participants, about 79 per cent declared they were engaged in the practice of professional engineering in, or for clients in, Ontario. About 86 per cent of these practising licence holders completed the practising questionnaire and received a recommended number of hours towards continuing knowledge activities for the year, 47 per cent of whom reported some continuing knowledge activities. About 95 per cent of the non-practising licence holders completed the non-practising survey. Of the program participants that year, 72 per cent watched PEO's ethics module video.

The breakdown of participation rates for the first two years of the PEAK program are presented in Figure 10. The voter turnout for PEO council elections for the last three elections is presented in Figure 11.

Figure 10. PEAK participation rates for Years 1 and 2

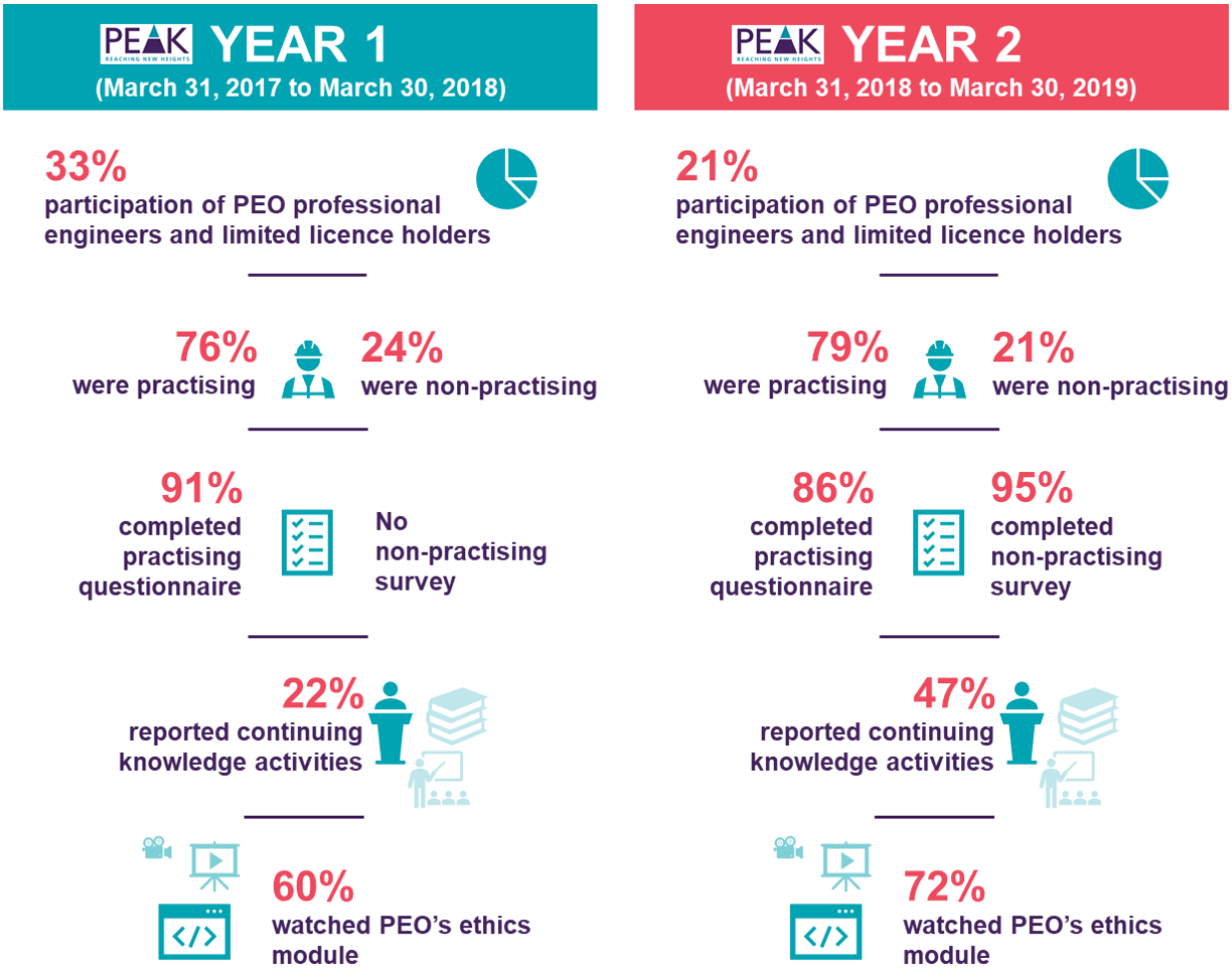


Figure 11. Participation rates for recent PEO elections

Voter turnout for recent PEO elections	
2017	16%
2018	13%
2019	12%

4.1.2 *By Age Range*

This section presents an overview of the participation rates for all three elements of the PEAK program, as well as the declaration rates, by describing the rates by age range using six cohorts:

25 to 35; 36 to 45; 46 to 55; 56 to 65; 66 to 75; 76 and above. The breakdown of these rates by age range for the first two years of the PEAK program is presented in Figures 12 to 17.

Participation in the annual, voluntary PEAK program

Participation in the PEAK program by age range is represented by the *Declared a Practice Status* series. The overall participation rate was 33 per cent in Year 1 of the program and 21 per cent in Year 2. The highest rate of participation occurred in the lowest cohort of ages 25 to 35 (38 per cent in Year 1 and 27 per cent in Year 2). This participation rate decreased with increasing age range and decreased sharply above age 65. The lowest participation rate occurred in the highest cohort of age 76 and above (15 per cent in Year 1 and 7 per cent in Year 2).

Practice Declarations

The rate of practice declarations by age range for all practising and non-practising licence holders participating in the PEAK program is represented by the *Practising* and *Non-Practising* series respectively.

The overall rate of a practising declaration was 76 per cent in Year 1 of the program and 79 per cent in Year 2. The highest rate of a practising declaration occurred in the lowest cohort of ages 25 to 35 (92 per cent in Year 1 and 93 per cent in Year 2). The practising declaration rate decreased with increasing age range and decreased sharply above age 65. The lowest rate of a practising declaration occurred in the highest cohort of ages 76 and above (24 per cent in Year 1 and 22 per cent in Year 2).

The overall rate of a non-practising declaration was 24 per cent in Year 1 of the program and 21 per cent in Year 2. The lowest rate of a non-practising declaration occurred in the lowest cohort of ages 25 to 35 (8 per cent in Year 1 and 7 per cent in Year 2). The non-practising declaration rate increased with increasing age range and increased sharply above age 65. The highest rate of a non-practising declaration occurred in the highest cohort of ages 76 and above (76 per cent in Year 1 and 78 per cent in Year 2).

Ethics Module

The rate of viewing the ethics module video by age range for all participants in the PEAK program is represented by the *Watched an Ethics Module* series. The overall viewing rate was 60 per cent in Year 1 of the program and 72 per cent in Year 2. The largest viewing rate occurred in the cohort

of ages 66 to 75 (66 per cent in Year 1 and 77 per cent in Year 2). The lowest viewing rate occurred in the cohort of ages 76 and above (53 per cent in Year 1 and 64 per cent in Year 2).

Practice Evaluation Questionnaire

The completion rate for the practice evaluation questionnaire by age range for practising licence holders participating in the PEAK program is represented by the *Completed Practising Questionnaire* series. The overall completion rate was 91 per cent in Year 1 of the program and 86 per cent in Year 2. The completion rate was steady across all age ranges each year but increased slightly with age range. The highest completion rate occurred in the cohort of ages 56 to 65 in Year 1 (92 per cent) and ages 66 to 75 in Year 2 (89 per cent).

Reporting of Continuing Knowledge Activities

The reporting of continuing knowledge activities by age range for practising licence holders participating in the PEAK program is represented by the *Reporting Continuing Knowledge Activities* series. The overall reporting rate was 22 per cent in Year 1 of the program and 47 per cent in Year 2. The reporting rate decreased with increasing age range. The highest reporting rate occurred in the cohort of ages 36 to 45 (22 per cent in Year 1 and 43 per cent in Year 2). The lowest reporting rate occurred in the cohort of ages 76 and above in Year 1 (8 per cent) and Year 2 (22 per cent).

The reporting of continuing knowledge activities exceeding the recommended number of PEAK hours by age range is represented by the *Reporting > Recommended* series. The overall reporting rate was 8 per cent in Year 1 of the program and 55 per cent in Year 2. The reporting rate decreased with increasing age range. The highest reporting rate occurred in the cohort of ages 25 to 35 in Year 1 (10 per cent) and ages 46 to 55 in Year 2 (21 per cent) of the program. The lowest reporting rate occurred in the cohort of ages 76 and above in Year 1 (0.5 per cent) and Year 2 (1 per cent)

Non-Practising Survey

The non-practising survey was introduced at the start of Year 2 of the PEAK program. The completion rate for the non-practising survey by age range for non-practising licence holders participating in the program is represented by the *Completed Non-Practising Survey* series. The overall completion rate was 95 per cent in Year 2. The completion rate was steady across all age ranges but increased slightly with age range. The highest completion rate occurred in the cohort of ages 76 and above (99 per cent).

Figure 12. PEAK program participation rates for Year 1

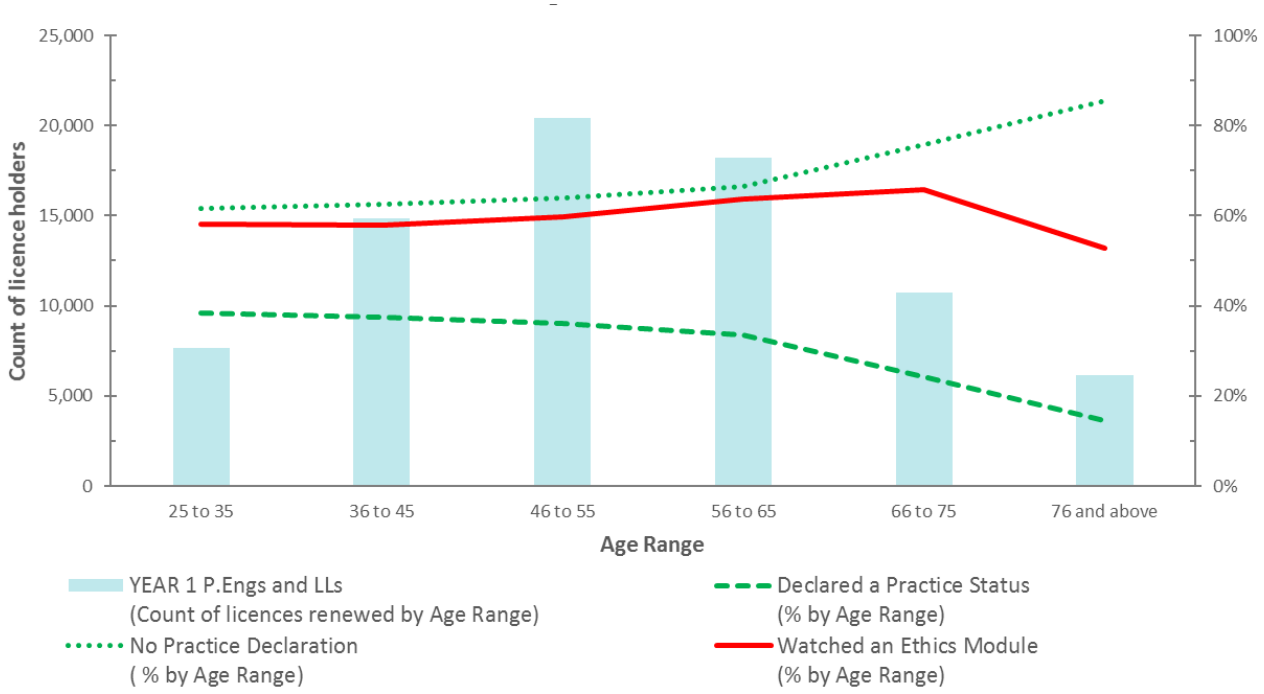


Figure 13. PEAK program participation rates for Year 2

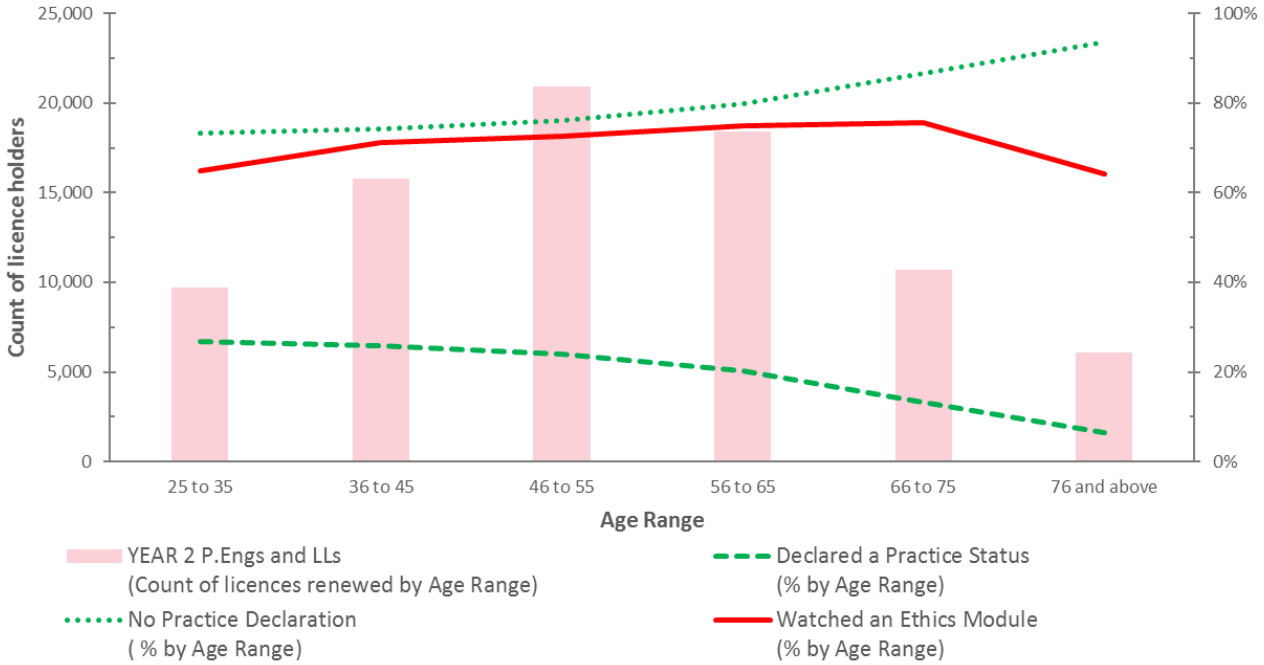


Figure 14. PEAK program participation rates for practising licence holders for Year 1

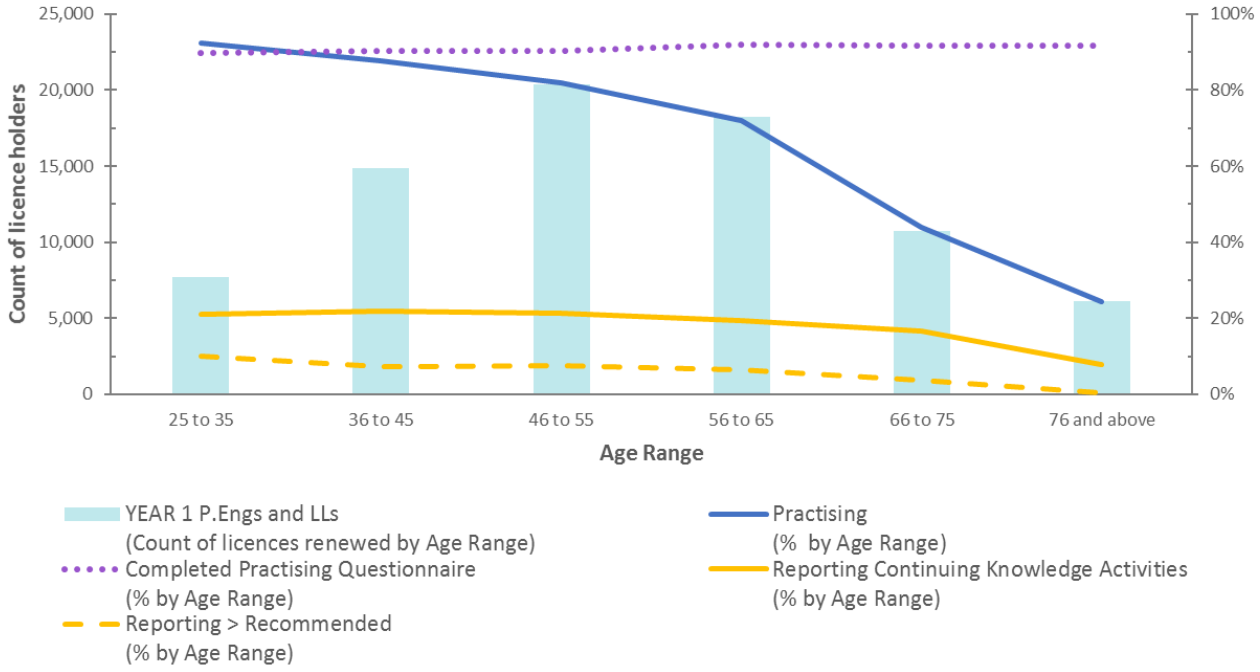


Figure 15. PEAK program participation rates for practising licence holders for Year 2

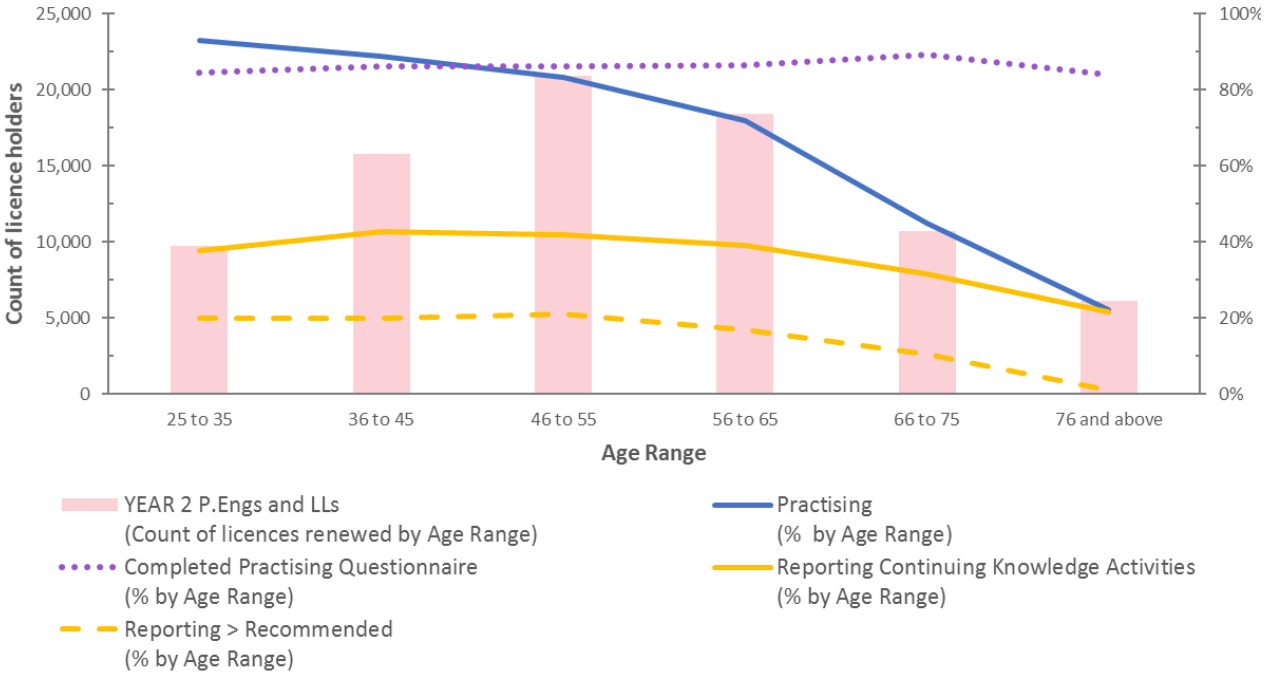


Figure 16. PEAK program participation rates for non-practising licence holders for Year 1

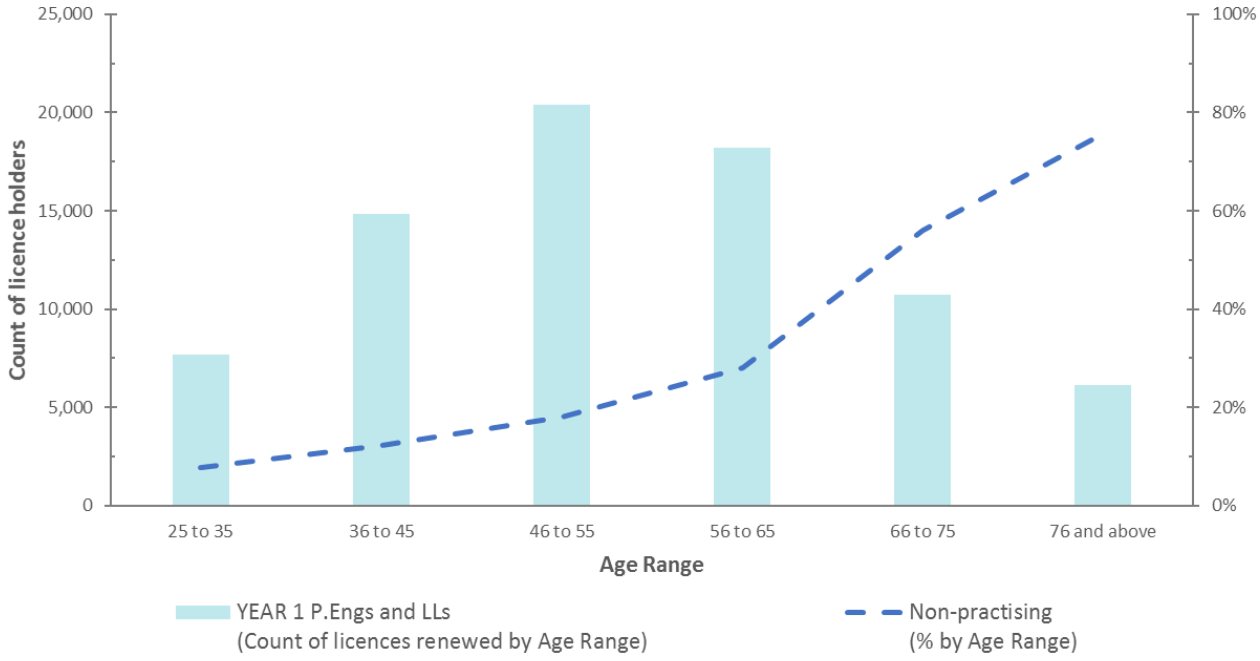
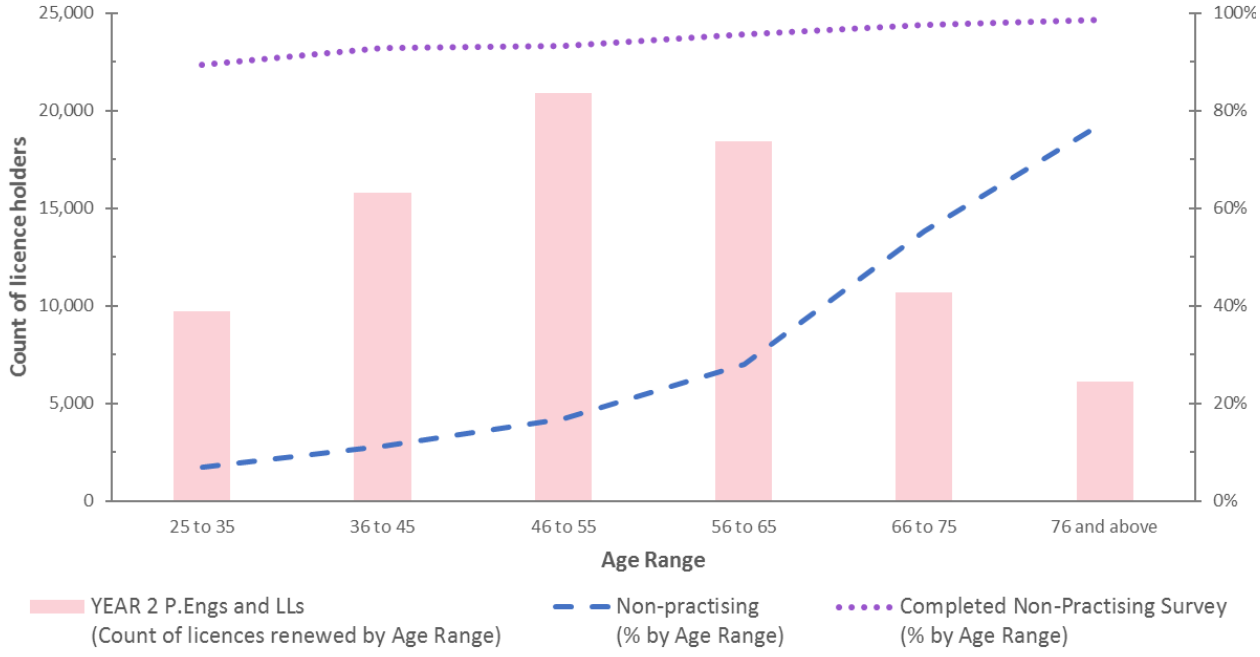


Figure 17. PEAK program participation rates for non-practising licence holders for Year 2



4.2 Practice areas

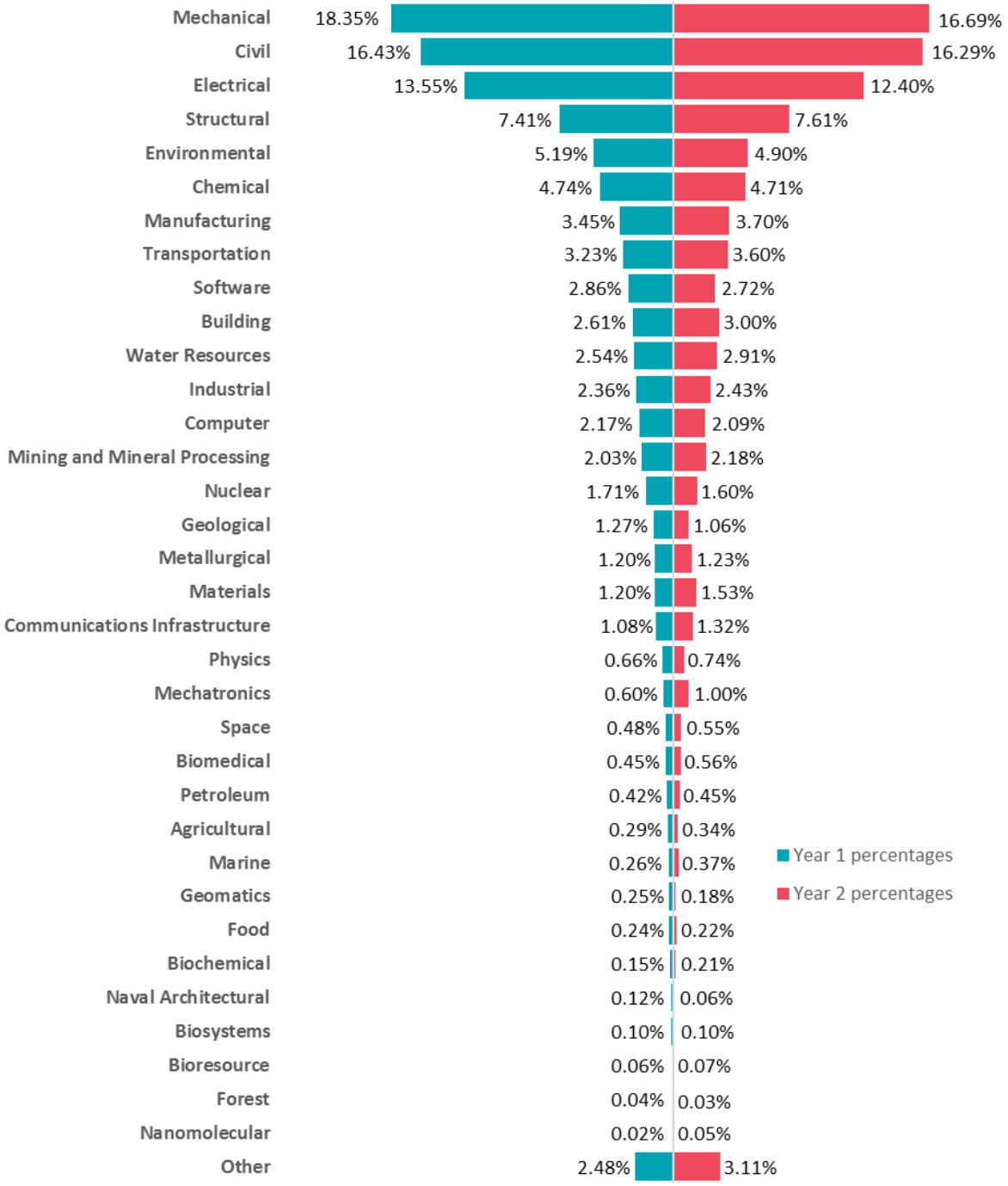
4.2.1 *Disciplines*

The most and least practised engineering disciplines by Ontario professional engineers and limited licence holders who participated in the PEAK program are presented in Figure 18 followed by a breakdown of all engineering disciplines in Figure 19.

Figure 18. Most and least practised engineering disciplines as indicated by PEAK program participants

YEAR 1 *(March 31, 2017 to March 30, 2018)*		YEAR 2 *(March 31, 2018 to March 30, 2019)*	
MOST PRACTISED DISCIPLINES		**MOST PRACTISED DISCIPLINES**	
1. Mechanical	18.81%	1. Mechanical	17.22%
2. Civil	16.85%	2. Civil	16.81%
3. Electrical	13.90%	3. Electrical	12.80%
4. Structural	7.60%	4. Structural	7.85%
5. Environmental	5.32%	5. Environmental	5.06%
LEAST PRACTISED DISCIPLINES		**LEAST PRACTISED DISCIPLINES**	
1. Nanomolecular	0.02%	1. Forest	0.03%
2. Forest	0.04%	2. Nanomolecular	0.05%
3. Bioresource	0.06%	3. Naval Architecture	0.06%
4. Biosystems	0.10%	4. Bioresource	0.17%
5. Naval Architecture	0.12%	5. Biosystems	0.10%

Figure 19. Engineering practice disciplines for professional engineers and limited licence holders who participated in the PEAK program



4.2.2 *Responses to the Practice Evaluation Questionnaire from practising licence holders*

The observations in Figure 20 apply equally to participation in both first and second years of the PEAK program. See the appendix for the breakdown of the responses for the twenty questions in the practice evaluation questionnaire for the first and second years of the PEAK program. Additional details about the responses provided to the practice evaluation questionnaire are available upon request.

Figure 20. Observations on the responses to the Practice Evaluation Questionnaire from practising licence holders for Years 1 and 2

Risk Influence Topic	Observations
#1 Organizational structure of practice	Most practised in multi-discipline teams. Some practised in single-discipline teams of two or more engineers. Few practised alone or with non-engineers.
#2 Engineering role within the organization	Most checked and approved engineering documents prepared by themselves or others and assumed responsibility for them. Some checked engineering documents prepared by others but did not assume responsibility for them. Few did not prepare or check engineering documents. Few prepared engineering documents checked or approved by others.
#3 Engineering standards *(Multiple responses allowed)*	Most practised in areas governed by codes established in regulations. Many practised in areas supported by peer reviewed best practices. Few practised in areas with few published guidance documents where engineers must use their own engineering knowledge and judgement.
#4 External engineering reviews *(Multiple responses allowed)*	Most were reviewers of engineering documents or had their engineering documents undergo non-mandatory technical or non-technical reviews by non-regulatory persons. Some did not prepare engineering documents or have their engineering documents reviewed externally. Some had their engineering documents undergo technical or non-technical reviews by regulatory bodies.
#5 Internal engineering peer reviews	Most practised with a documented and rigorous internal review process in place for every project. Some practised with a documented and rigorous internal review process in place for new or high-risk projects only. Some practised with an informal internal review followed on an ass-needed basis decided by management. Few practised with no reviews because they are sole practitioners or their employer has no established review process.

#6 Engineering quality management system (QMS)	Most practised with an industry recognized or internally developed QMS program. Few practised without a QMS program.
#7 Engineering outcome	Most performed engineering with minimal, moderate or significant impact to the public. Some performed engineering with minor or major impact to the public. Few performed engineering with no impact to the public.
#8 Technical certifications	Most did not hold a technical certification.
#9 Membership in technical societies (PEO excluded)	Many actively participated in at least one engineering body or technical association related to their practice areas. Many did not belong to any organized engineering body or technical association related to their practice areas. Some were members of at least one engineering body or technical association related to their practice areas but did not actively participate in its activities.
#10 Responsibility level	Most made decisions that are reviewed for soundness of judgement but usually accepted as technically accurate and feasible. Many normally made decisions within established guidelines, or made responsible decisions not usually subject to technical review along with actions to expedite projects. Some made independent studies, analyses, interpretations and conclusions on complex matters that are usually then referred to more senior authority. Some made responsible decisions on all matters including the establishment of policies subject only to overall company policy and financial controls. Few made limited technical decisions that are routine in nature with clearly defined procedures guidelines.
#11 Audits *(Multiple responses allowed)*	Most practised where internal audits are performed by the engineering supervisor on a regular basis. Many practised where no audits of work are performed. Some practised where external audits are performed regularly at a set interval. Few practised where external audits are performed only when requested by management.
#12 Practice improvements (Lessons-learned program)	Most practised with a process established to track and fix errors or omissions and communicate lessons learned. Many practised with an informal process to identify errors and share informally.

	Few practised with no error tracking or lessons learned process established.
#13 Experience within current area of practice	Most indicated more than 20 years of experience in their current practice areas. Many indicated 11 to 20 years of experience in their current practice areas. Some indicated 5 to 10 years of experience in their current practice areas. Few indicated less than 5 years of experience in their current practice areas.
#14 Engineering mentorship or peer network	Most consulted with their peers without a designated engineering mentor. Some had a designated engineering mentor inside or outside their organization and met on a regular basis. Few did not have a designated engineering mentor or network of peers to provide guidance.
#15 Review of relevant technical information	Most reviewed technical materials relevant to their practice areas on a regular basis—daily, weekly or monthly. Some reviewed relevant technical materials quarterly or semi-annually. Few reviewed relevant technical materials yearly or longer.
#16 Reference library	Most had access to a complete and up-to-date reference library of the standards and best practices relevant to their practice areas and were knowledgeable about the contents of the library. Some had access to an up-to-date company reference library and had some knowledge about its contents. Less had access to a reference library with little or no knowledge of its contents and its up-to-date status. Few had access to an out-of-date library, had access to a limited library or had no access to a reference library.
#17 Industry updates	Most practised in areas where industry standards and best practices change at regular intervals and those changes are well publicized. Some practised in areas where industry standards and best practices rarely change. Less practised in areas where industry standards and best practices change frequently. Few practised in areas with no formal industry standards and best practices, where emerging fields are constantly changing and advancing.
#18 Organizationally-provided training	Most practised at organizations that provide or support ongoing technical training related to their practice areas. Many practised at organizations that provide or support infrequent technical training related to their practice areas.

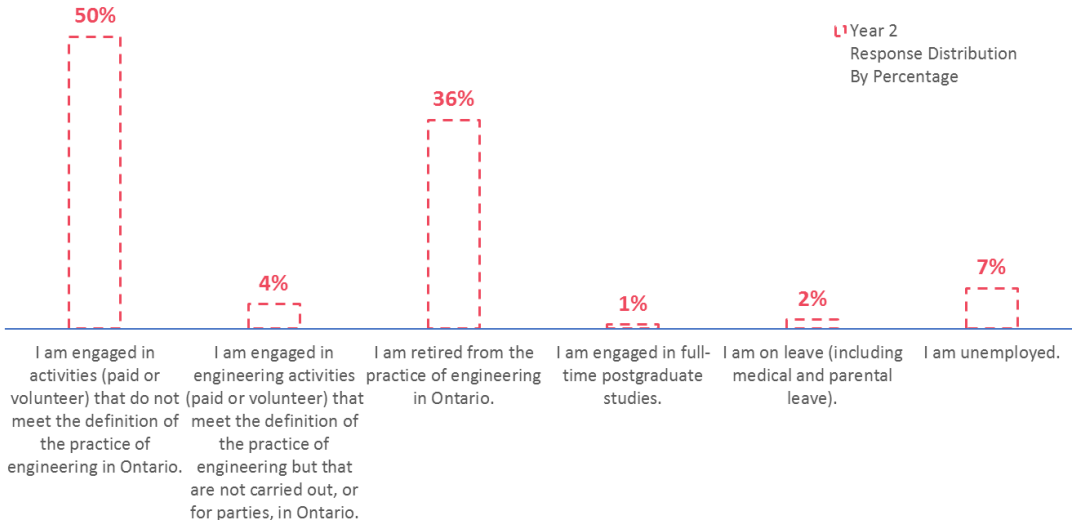
	Some practised at organizations that do not provide or support technical training related to their practice areas.
#19 Breadth of practice	Many indicated they are generalist practitioners. Some indicated they are specialist practitioners in two or more areas. Some indicated they are specialist practitioners in a single area.
#20 CPD programs (outside PEO)	Most did not participate in any CPD programs. Some completed mandatory CPD elsewhere, such as required by employers and other regulators. Less completed mandatory CPD programs for a certification related to their practice areas. Few completed voluntary CPD programs for regulators in other jurisdictions.

4.2.3 *Responses to the Non-Practising Survey from non-practising licence holders*

The breakdown of responses for the five questions in the non-practising survey for the second year of the PEAK program are presented in Figures 21 to 25. The non-practising survey was introduced at the start of the second year of the program.

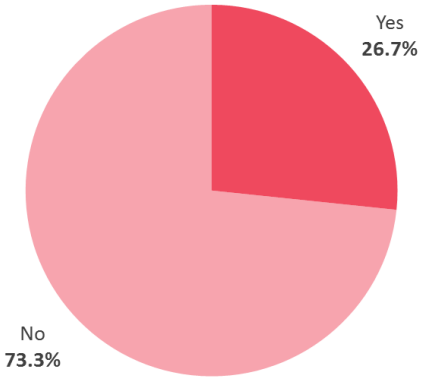
In response to a question on the reason for their non-practising declaration, PEAK participating licence holders mostly indicated, at 50 per cent, they were engaged in activities that did not meet the provincial definition for the practice of professional engineering for Ontario. The next largest reason for a non-practising declaration, at 36 per cent, was being retired from the practice of engineering. Few licence holders indicated their non-practising declaration was attributed to being engaged in full-time studies, on parental or medical leave or practising exclusively outside Ontario.

Figure 21. Reasons for PEO licence holders identifying as non-practising, as indicated in Year 2



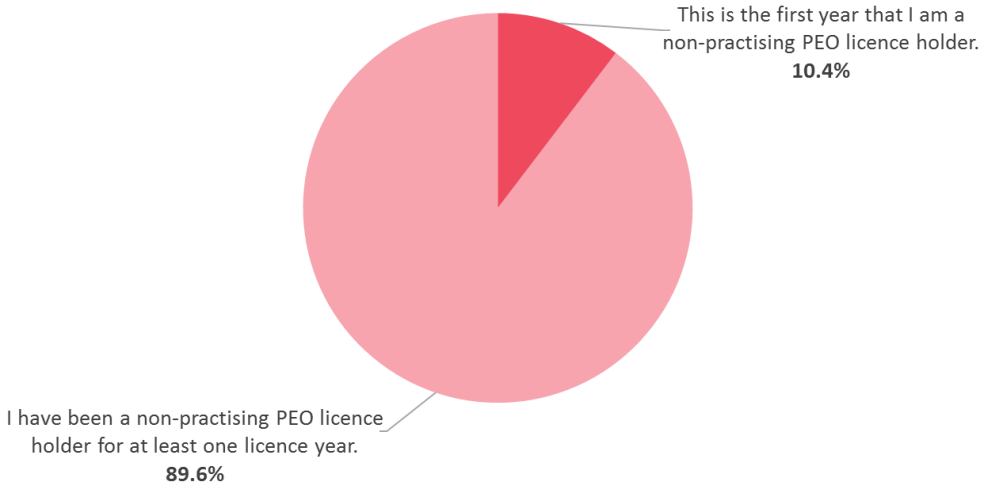
27 per cent of licence holders participating in the PEAK program confirmed their non-practising declaration was associated with being enrolled in PEO's fee remission program.

Figure 22. Non-practising licence holders registered in PEO's fee remission program in Year 2



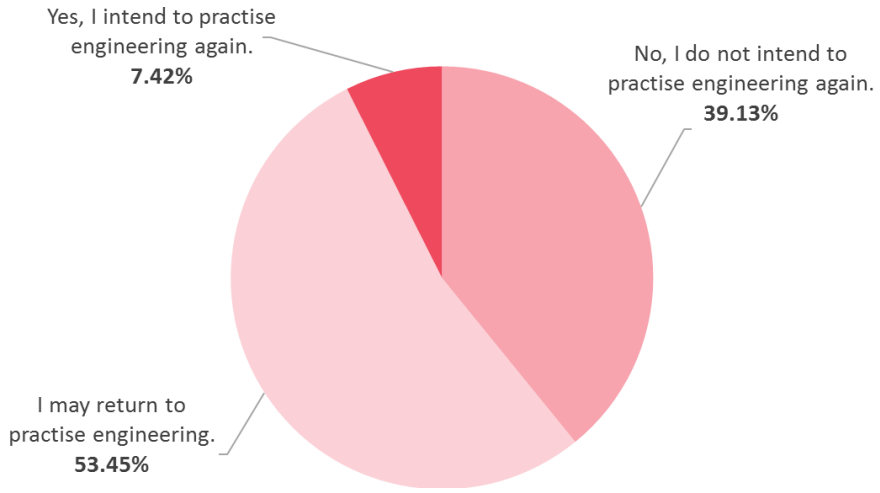
Most licence holders participating in the PEAK program confirmed their non-practising declaration has continued for at least one licence year. Only 10 per cent indicated their non-practising status started in the last licence year.

Figure 23. Length of time as a non-practising PEO licence holder, as declared in Year 2



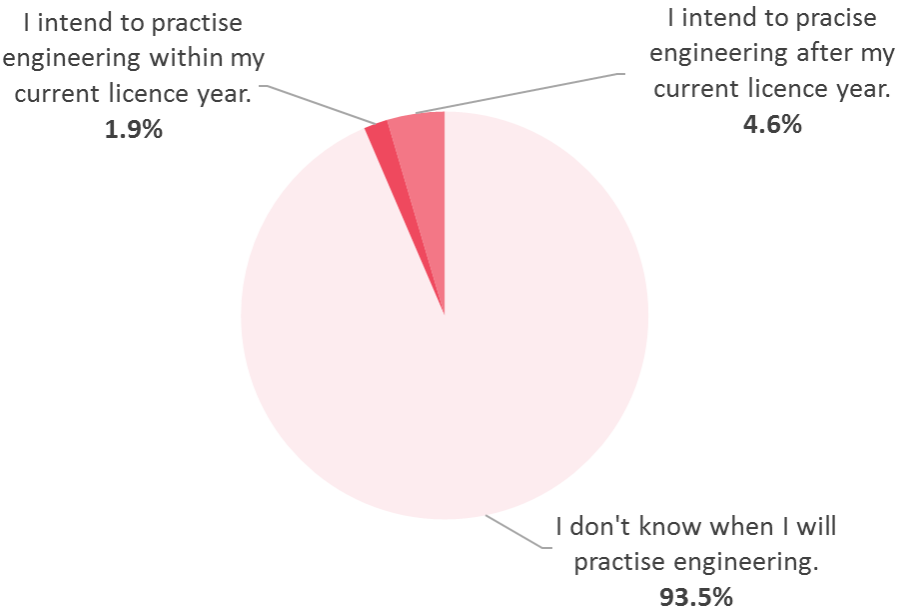
Most non-practising licence holders participating in the PEAK program, about 60 per cent of them, indicated their intent to practise engineering in the future; however, only 7.42 per cent were certain they would practise again while the remaining 53.45 per cent speculated a future return. Meanwhile, 39.13 per cent confirmed they do not intend to practise engineering again.

Figure 24. Intention of non-practising PEO licence holders to practise engineering again, as indicated in Year 2



Of the 60 per cent of non-practising licence holders participating in the PEAK program who intend to practise engineering in the future, only 1.9 per cent intend to practise within the current licence year. Most of the remaining licence holders of the 60 per cent were unsure when they would return to practise engineering again.

Figure 25. Timeline for non-practising PEO licence holders to practise engineering again, as indicated in Year 2



4.3 Recommended hours towards continuing knowledge activities

This section presents an overview of the recommended hours towards continuing knowledge activities for practising licence holders participating in the PEAK program by describing the recommendations by age range using six cohorts: 25 to 35; 36 to 45; 46 to 55; 56 to 65; 66 to 75; 76 and above. The breakdown of the recommended hours by age range for the first two years of the PEAK program is presented in Figure 26.

Figure 26. PEAK hours recommended to practising licence holders by age range

Age Range	Average Recommended PEAK Hours in YEAR 1 *(March 31, 2017 to March 30, 2018)*	Average Recommended PEAK Hours in YEAR 2 *(March 31, 2018 to March 30, 2019)*
25 to 35	**14**	**14**
36 to 45	**13**	**13**
46 to 55	**13**	**13**
56 to 65	**13**	**13**
66 to 75	**14**	**14**
76 and above	**14**	**15**

4.4 Reporting of continuing knowledge activities

The PEAK program asks participating licence holders who self-identified as practising licence holders to report their continuing knowledge activity hours to PEO using an online form available to licence holders in their portal account. Each continuing knowledge declaration or activity report allows the licence holder to provide details about the activity—such as activity name, type, objectives, duration and start and end dates—which informs PEO how licence holders pursue continuing education. The continuing knowledge declaration component of the PEAK program promotes and gauges the continuing competence activities undertaken by professional engineers and limited licence holders with explicit focus on technical content that maintains or enhances their engineering competence. The PEAK program recognizes these activities undertaken by a variety of delivery methods which are grouped according to three categories: formal education, informal education and contributions to knowledge.

In the first year of the PEAK program, most of the reported activity hours were attributed to the *informal education* category of continuing knowledge activities. The fewest reported activity hours were attributed to the *contributions to knowledge* category of continuing knowledge activities. In the program's second year, most of the reported activity hours were also attributed to the *informal*

education category of continuing knowledge activities. The fewest reported activity hours were attributed to the *contributions to knowledge* category of continuing knowledge activities. A breakdown of continuing knowledge activity hours reported by practising licence holders by licence year is available in Figure 27.

Figure 27. PEAK hours reported by practising licence holders

Category of Continuing Knowledge Activities	Year 1 *(March 31, 2017 to March 30, 2018)*	Year 2 *(March 31, 2018 to March 30, 2019)*
Formal education	**32%**	**28%**
Informal education	**48%**	**48%**
Contributions to knowledge	**20%**	**24%**

5. Calls for a Continuing Professional Development Program

5.1 Report by OSPE on continuing professional development

The June 2013 report by the working group for the Ontario Society of Professional Engineers (OSPE) on continuing professional development for engineers recommended the establishment of a mandatory continuing professional development program by PEO. The report provided recommendations to PEO for the framework for such a program.

> *The OSPE report is available online at:*
> *https://www.ospe.on.ca/public/documents/advocacy/2013-maintaining-enhancing-engineering-capability.pdf*

PEO Council tasked PEO's Professional Standards Committee (PSC) with reviewing the June 2013 OSPE report and providing Council with comments from the committee and PEO licence holders as well as a plan of action. Council received the PSC's report in February 2014 and, subsequently, established the PEO Continuing Professional Development, Competence and Quality Assurance (CPDCQA) Task Force in 2014 to prepare a concept for a comprehensive approach to continuing professional development and quality assurance, as part of a proactive PEO approach in regulating the profession. The 2015 final report prepared by PEO's CPDCQA Task Force acknowledged the 2013 OSPE report on continuing professional development for engineers.

Consequently, PEO launched the Practice Evaluation and Knowledge (PEAK) program as an annual, voluntary continuing competence reporting program on March 31, 2017. At the time of the launch of the program, PEO was not empowered with the authority to create regulations dealing with mandatory continuing education requirements and enforcement of those mandatory requirements. In September 2015, Council affirmed a policy position that requires a member referendum to ratify making the PEAK program or any part of it a mandatory requirement for PEO licensure or licence renewal.

Since then, a December 2017 update to subsection 7(1)(27) of Ontario's *Professional Engineers Act* empowers PEO with the authority to create regulations dealing with mandatory continuing education requirements and enforcement of those mandatory requirements. However, at this time, no changes exist to PEO's operational policies with respect to continuing education that make any part of the PEAK program mandatory or impose sanctions onto non-compliant licence holders.

The voluntary PEAK program partly addresses the non-binding recommendations from the 2013 OSPE report on continuing professional development for PEO licence holders. However, because the PEAK program is voluntary, PEO licence holders participate at their discretion and, consequently, the participation rate was 33 per cent in 2017 and 21 per cent in 2018. A mandatory version of the PEAK program is expected to address more of these recommendations from the 2013 OSPE report by requiring all PEO licence holders to participate in the program as a condition of licence renewal.

5.2 Public inquiry into the 2012 Algo Centre Mall collapse in Elliot Lake

The October 2014 commissioner's report from the public inquiry into the 2012 Algo Centre Mall collapse in Elliot Lake, Ontario provided recommendations for a number of areas, including the engineering profession. One of the recommendations called for a mandatory CPD program by PEO for PEO licence holders.

> *The commissioner's report is available online at:*
> *https://www.attorneygeneral.jus.gov.on.ca/inquiries/elliotlake/report/index.html*
>
> *Recommendation 1.24*
>
> *The Professional Engineers of Ontario should establish a system of mandatory continuing professional education for its members as soon as possible, and in any event no later than 18 months from the release of this Report.*

At the time of the commissioner's recommendation, PEO's Continuing Professional Development, Competence and Quality Assurance (CPDCQA) Task Force was already preparing a concept for a comprehensive approach to continuing professional development and quality assurance, as part of a proactive PEO approach in regulating the profession. The 2015 final report prepared by PEO's CPDCQA Task Force acknowledged the commissioner's recommendation on continuing professional development for engineers. Also, at the time of the commissioner's recommendation, PEO was not empowered with the authority to create regulations dealing with mandatory continuing education requirements and enforcement of those mandatory requirements.

Consequently, PEO launched the PEAK program as an annual, voluntary continuing competence reporting program on March 31, 2017. At the time of the launch of the program, PEO was not empowered with the authority to create regulations dealing with mandatory continuing education requirements and enforcement of those mandatory requirements. In September 2015, Council affirmed a policy position that requires a member referendum to ratify making the PEAK program or any part of it a mandatory requirement for PEO licensure or licence renewal.

Since then, a December 2017 update to subsection 7(1)(27) of Ontario's *Professional Engineers Act* empowers PEO with the authority to create regulations dealing with mandatory continuing education requirements and enforcement of those mandatory requirements. However, at this time, no changes exist to PEO's operational policies with respect to continuing education that make any part of the PEAK program mandatory or impose sanctions onto non-compliant licence holders.

The voluntary PEAK program partly addresses the non-binding recommendation from the commissioner's report from the public inquiry into the 2012 Algo Centre Mall collapse in Elliot Lake that relate to continuing professional development for PEO licence holders. However, because the PEAK program is voluntary, PEO licence holders participate at their discretion and, consequently, the participation rate was 33 per cent in 2017 and 21 per cent in 2018. A mandatory version of the PEAK program is expected to address more of this recommendation from the commissioner's report by requiring all PEO licence holders to participate in the program as a condition of licence renewal.

5.3 Ontario coroner's inquest into the death of Scott Johnson at Downsview Park

The April 2019 verdict of the coroner's jury for the inquest into the death of Scott Johnson at the 2012 stage collapse at Downsview Park in Toronto provided recommendations that called for a mandatory program by PEO for continuing professional development for its licence holders.

The verdict is available online at:
https://www.mcscs.jus.gov.on.ca/english/Deathinvestigations/Inquests/Verdictsandrecommendations/OCCInquestJohnson2019.html

We, the jury, wish to make the following recommendations:

IV. Engineering Practice

To Professional Engineers Ontario

Professional Engineers Ontario ("PEO") should:

14 *Develop specialization criteria for engineers working on demountable event structures, including educational opportunities.*

15 *Require members to file an annual report, which would include identifying the engineering areas in which they work.*

16 *Require that all engineers undertake a minimum number of hours of professional development activities and submit a record of such activities each year to PEO.*

In particular, the recommendations called for mandatory annual declaration by PEO licence holders of their practising discipline(s) and corresponding scopes of practice to PEO. The recommendations additionally called for the identification of a number of hours for, annual completion of continuing professional development and annual reporting of those activities to PEO.

At the time of these recommendations from the inquest, PEO was operating the PEAK program, which is an annual, voluntary continuing competence reporting program that started in March 2017. The PEAK program addresses the recommendations for annual practice declaration, assignment of continuing professional development hours for the year and annual reporting of continuing professional development activities to PEO. However, the current version of the PEAK program is voluntary and participation in the program is left to the professional discretion of the licence holder.

With a December 2017 update to subsection 7(1)(27) of Ontario's *Professional Engineers Act*, PEO is empowered with the authority to create regulations dealing with mandatory continuing education requirements and enforcement of those mandatory requirements. However, a Council policy position that was established in September 2015, prior to the December 2017 update to the

Act, requires a member referendum to ratify making the PEAK program or any part of it a mandatory requirement for PEO licensure or licence renewal.

The voluntary PEAK program partly addresses the non-binding recommendations from the verdict of the coroner's jury that relate to continuing professional development for PEO licence holders. However, because the PEAK program is voluntary, PEO licence holders participate at their discretion and, consequently, the participation rate was 33 per cent in 2017 and 21 per cent in 2018. A mandatory version of the PEAK program is expected to address more of these recommendations from the April 2019 verdict by requiring all PEO licence holders to participate in the program as a condition of licence renewal.

5.4 External review of PEO's regulatory performance

The April 2019 report prepared by an independent reviewer, at PEO's request, on PEO's performance as a regulator called for a mandatory program by PEO for continuing professional development for PEO licence holders.

At the time of these recommendations from the regulatory review, PEO was operating the PEAK program, which is an annual, voluntary continuing competence reporting program that started in March 2017. The PEAK program addresses the recommendations for annual practice declaration, assignment of continuing professional development hours for the year and annual reporting of continuing professional development activities to PEO. However, the current version of the PEAK program is voluntary and participation in the program is left to the professional discretion of the licence holder.

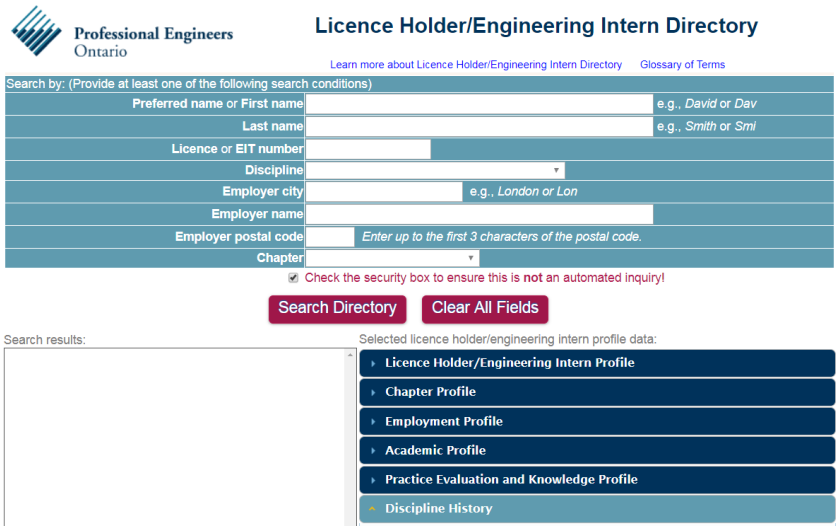
With a December 2017 update to subsection 7(1)(27) of Ontario's *Professional Engineers Act*, PEO is empowered with the authority to create regulations dealing with mandatory continuing education requirements and enforcement of those mandatory requirements. However, a Council policy position that was established in September 2015, prior to the December 2017 update to the Act, requires a member referendum to ratify making the PEAK program or any part of it a mandatory requirement for PEO licensure or licence renewal.

Because the PEAK program is voluntary, PEO licence holders participate at their discretion and, consequently, the participation rate was 33 per cent in 2017 and 21 per cent in 2018. A mandatory version of the PEAK program is expected to address this recommendation from the June 2019 report on the PEO regulatory review by requiring all PEO licence holders to participate in the program as a condition of licence renewal.

6. Appendices

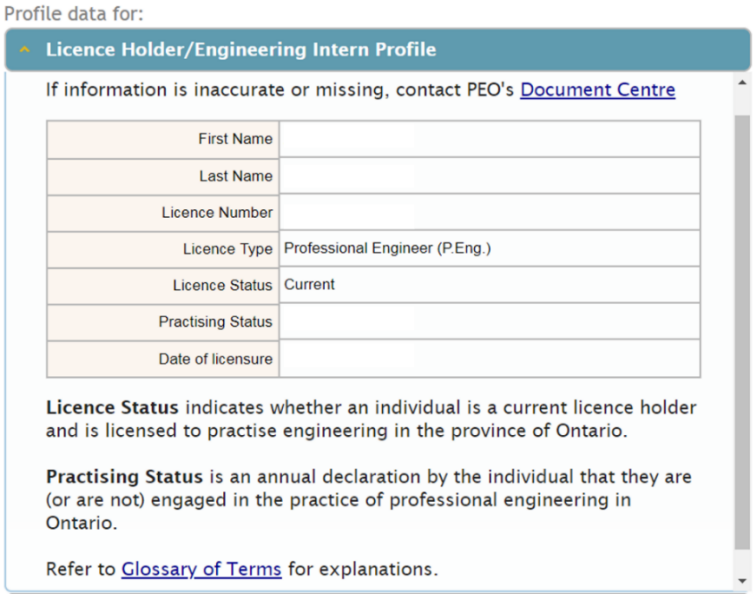
6.1 PEO's online directory and the PEAK program

6.1.1 *Directory of licence holders*



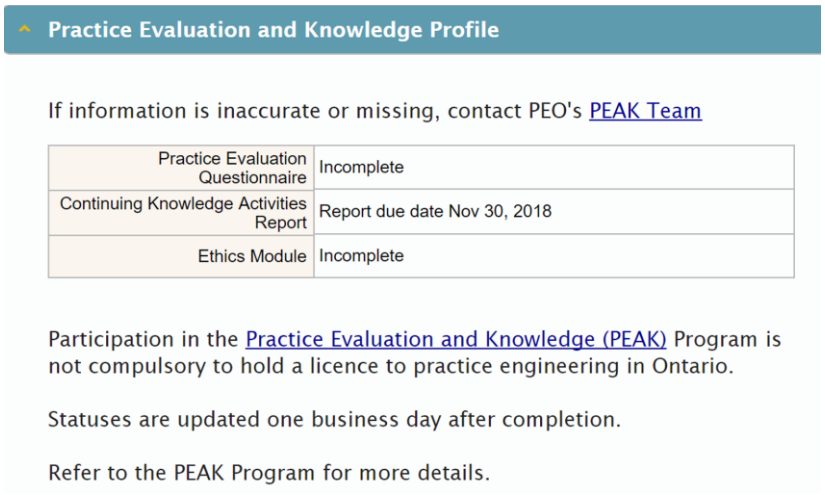
6.1.2 *Tab – Licence Holder/Engineering Intern Profile*

Licence status options read as: Current, Cancelled, Revoked, Suspended, or Resigned.
Practising status options read as: Undeclared, Practising, or Non-practising.



6.1.3 *Tab – Practice Evaluation and Knowledge Profile*

Practice Evaluation Questionnaire status options read as: Completed, or Incomplete.
Continuing Knowledge Activities Report status options read as: Completed, or Report Due Date MMM DD, YYYY.
Ethics Module status options read as: Completed, or Incomplete.



6.2 Practice Evaluation Questionnaire

6.2.1 *The 20 risk influence topics*

The practice evaluation questionnaire comprises twenty questions with predefined response options. The user is asked to select the response option that best applies. When more than one response option applies, the user is asked to select the response that presents the greatest risk to the public. Of the 20 questions, four questions allow the user to enter multiple responses; namely questions 3, 4, 11 and 20.

1. Organizational structure of practice
2. Engineering role within organization
3. Engineering standards
4. External engineering reviews
5. Internal engineering peer reviews
6. Engineering quality management system
7. Engineering outcome
8. Technical certifications
9. Membership in technical societies (PEO excluded)
10. Responsibility level
11. Audits
12. Practice improvements (Lessons learned program)
13. Experience within current area of practice
14. Engineering mentorship or peer network
15. Review of relevant technical information
16. Reference library
17. Industry updates
18. Organizationally-provided training
19. Breadth of practice
20. Continuing Professional Development programs (outside PEO)

6.2.2 *The formula used to calculate the individualized CPD recommendation.*

The following formula is applied by an algorithm to the responses to the questionnaire to determine the personalized recommended number of hours towards continuing knowledge activities for the user for the licence year. When the user enters more than one response option for questions 3, 4, 11 or 20, the algorithm only uses the response selection that represents the greatest risk to the public for each of these four questions.

$$30\ hours - \left\{\frac{\sum_{n=1}^{20}[Importance\ Weighting\ for\ the\ question\ x\ Reduction\ Option\ for\ the\ answer\ selection]}{Discount=3.3}\right\}$$

6.2.3 *The risk matrix*

Question	Reduction Options	Importance Weighting	Maximum Reduction
1	0-2	3	6
2	0-3	2	6
3*	0-2	1	2
4*	0-5	2	10
5	0-3	3	9
6	0-3	1	3
7	0-5	2	10
8	0-1	1	1
9	0-2	1	2
10	0-5	2	10
11*	0-3	1	3
12	0-2	1	2
13	0-3	2	6
14	0-2	2	4
15	0-3	1	3
16	0-3	1	3
17	0-3	2	6
18	0-2	2	4
19	0-2	3	6
20*	0-3	1	3

Starting CPD	30 hours
Starting CPD reduction	99
Discount	3.3
Final CPD reduction (max.)	30 hours

*The user may enter multiple selections; however, the calculation for determining the recommended number of hours towards continuing knowledge activities only uses the selection that represents the greatest risk to the public (i.e. applies the least CPD reduction).

6.3 Non-practising survey

1. Why do you currently identify as a non-practising PEO licence holder?
    a. I am engaged in activities (paid or volunteer) that do not meet the definition of the practice of engineering in Ontario.
    b. I am engaged in engineering activities (paid or volunteer) that meet the definition of the practice of engineering but that are not carried out, or for parties, in Ontario.
    c. I am retired from the practice of engineering in Ontario.
    d. I am engaged in full-time postgraduate studies.
    e. I am on leave (including medical and parental leave).
    f. I am unemployed.

2. Are you on fee remission?
    a. Yes
    b. No

3. How long have you been a non-practising PEO licence holder?
    a. This is the first year that I am a non-practising PEO licence holder.
    b. I have been a non-practising PEO licence holder for at least one licence year.

4. Do you intend to practise engineering again?
    a. No, I do not intend to practise engineering again.
    b. I may return to practise engineering.
    c. Yes, I intend to practise engineering again.

5. If you intend to practise engineering again, when do you anticipate returning?
    a. Not applicable.
    b. I don’t know when I will practise engineering.
    c. I intend to practise engineering within my current licence year.
    d. I intend to practise engineering after my current licence year.

6.4 Topics covered by the ethics module

Program Year	Topics
Year 1 (2017)	Code of Ethics. The “iron ring.” Public trust. Conflict of interest. The “industrial exception.” Use of the professional engineer’s seal.
Year 2 (2018)	Duty of care. Ordinary competence. Different professional opinions. Transparency. Duty to inform.
Year 3 (2019)	The trusted professional. Knowing the rules. Professional misconduct. Code of Ethics. Continuing competence through CPD. Conflicting obligations. Practising outside regular employment. Unfair advantage. Independent engineering opinions.

6.5 Categories of continuing knowledge activities

The PEAK program recognizes continuing knowledge activities under three broad categories: formal education, informal education and contributions to knowledge. The acquisition of engineering knowledge counts under the formal and informal education categories while the sharing of engineering knowledge counts under the contributions to knowledge category.

For an activity to count towards a licence holder's continuing knowledge hours for the PEAK program, it must be a learning session with technical knowledge that reinforces or supplements the licence holder's existing engineering knowledge. It must be relevant to the licence holder's engineering practice disciplines and sufficiently technical. It can be hosted in any jurisdiction and time spent on a continuing knowledge activity can be used for the licence holder's activity reports but must be reported for the licence year when the time was spent.

Formal education refers to any structured classroom-based learning that is instructed by persons with expert knowledge of the subject matter and where the instructor assesses whether the students have understood the information. Examples include successfully completing:

- college or university courses in technical subjects.
- courses for industrial sector certifications.
- training courses provided by manufacturers or suppliers, and similar activities.

Informal education refers to learning activities that take place outside the classroom and where participants are not assessed on their understanding of the information. Examples include attending and participating in:

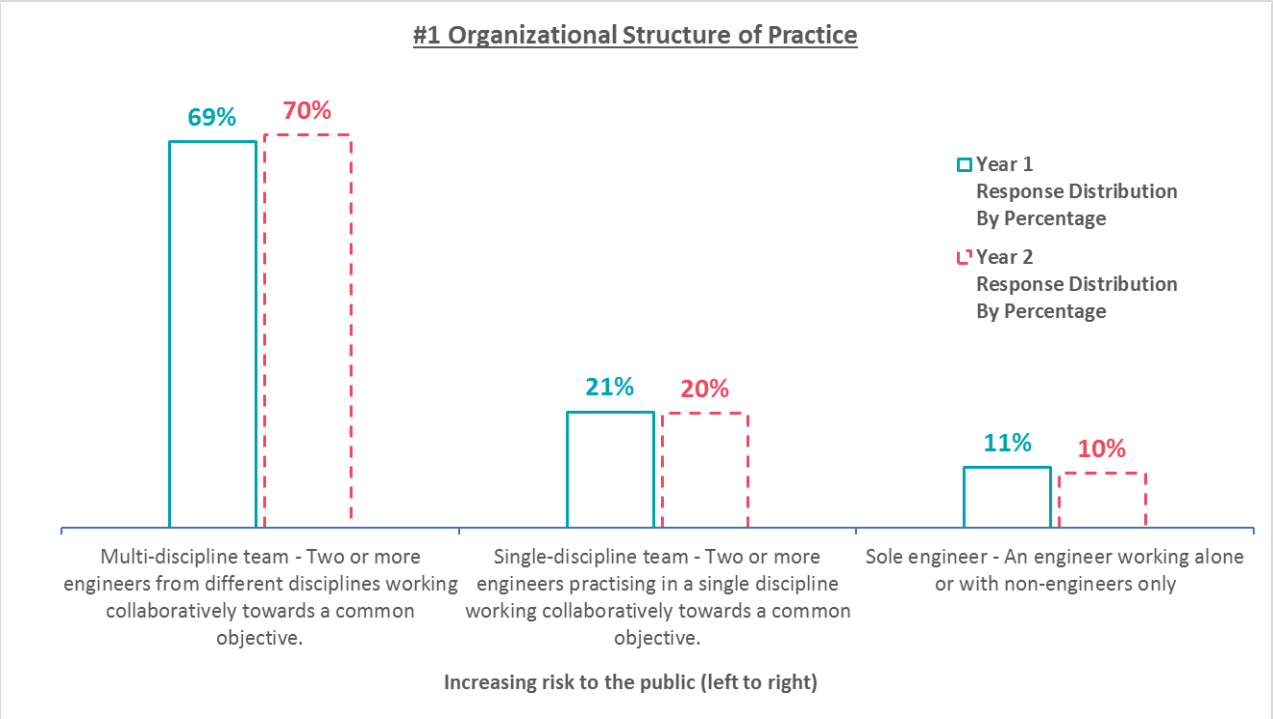
- self-study through the reading of technical journals and papers, books and manuals, and codes, standards, guidelines, regulations and commentaries.
- technical sessions in conferences or trade-shows, or standalone workshops.
- technical seminars, webinars, tutorials and tours such as those organized by employers, vendors, academic groups, technical and industry associations, engineering associations, and PEO chapters.
- technical discussions with peers in mentoring sessions or study groups such as those that take place at work or in a volunteer or social setting.

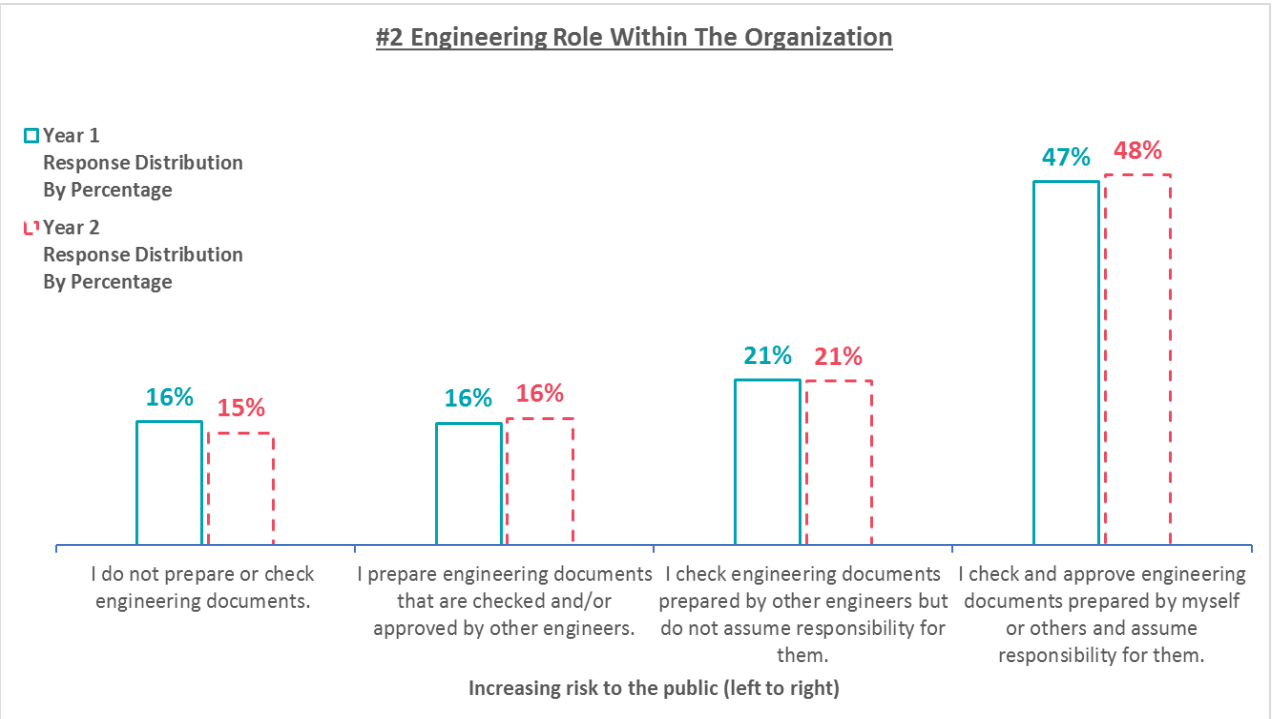
Contributions to knowledge refers to any activity that disseminates knowledge to licence holders or establishes best practices for the profession. Examples include:

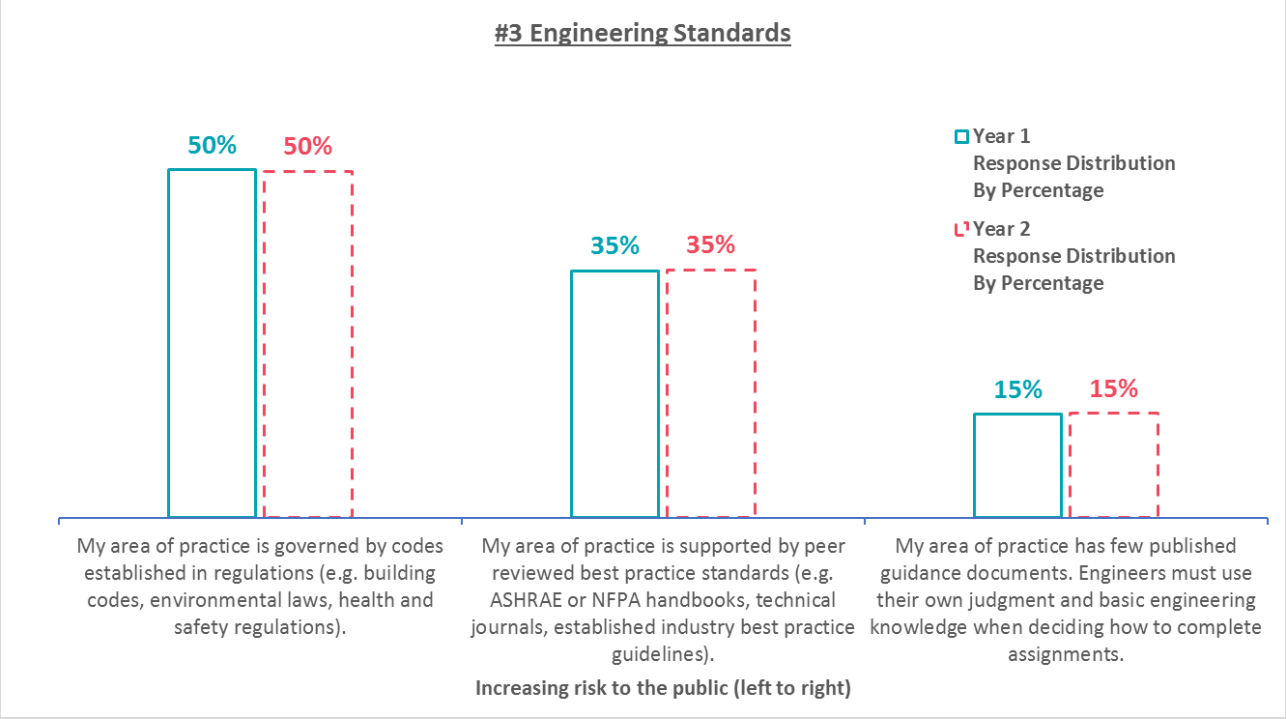
- preparing and/or delivering a seminar, presentation or tour to an audience of professional engineers or limited licence holders, technologists, or related professions.
- preparing and publishing papers on topics of interest to the engineering community.

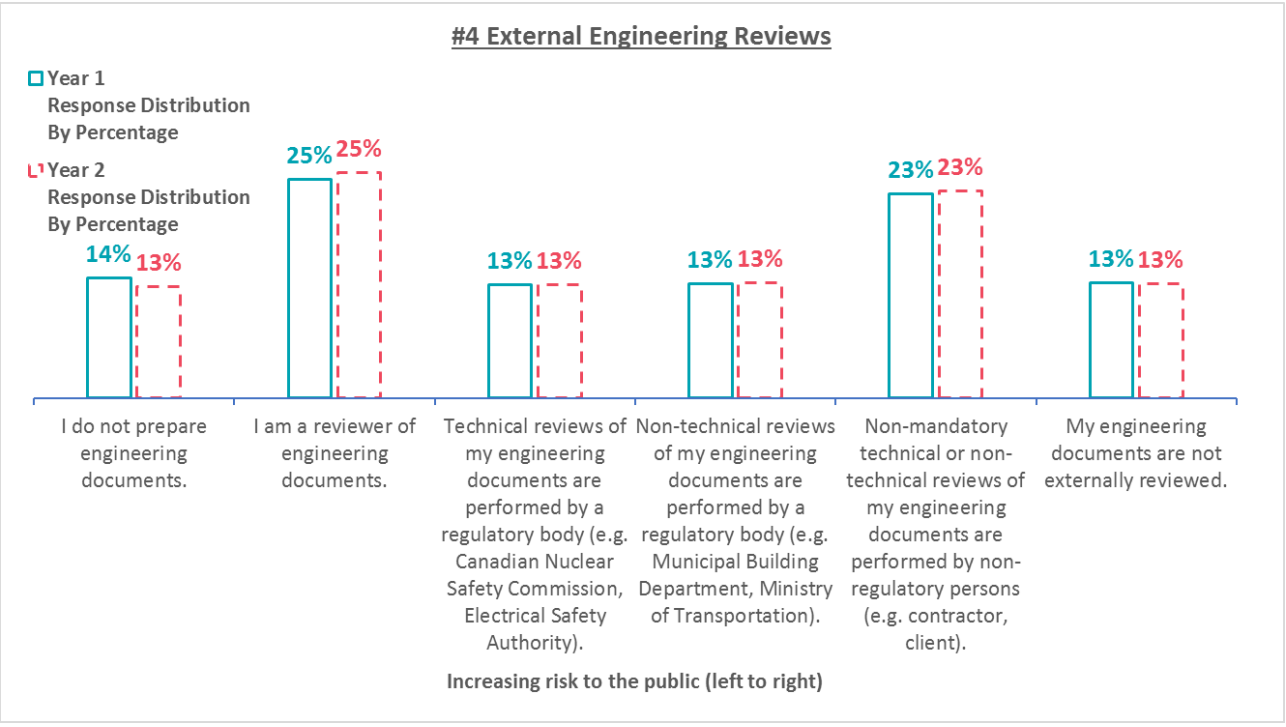
- preparing and publishing articles in technical or trade journals or magazines.
- participating in committees developing codes, standards, guidelines and commentaries.
- participating in expert advisory panels.
- preparing and instructing courses in technical topics for engineering practice.
- providing technical mentoring to members of the engineering community.

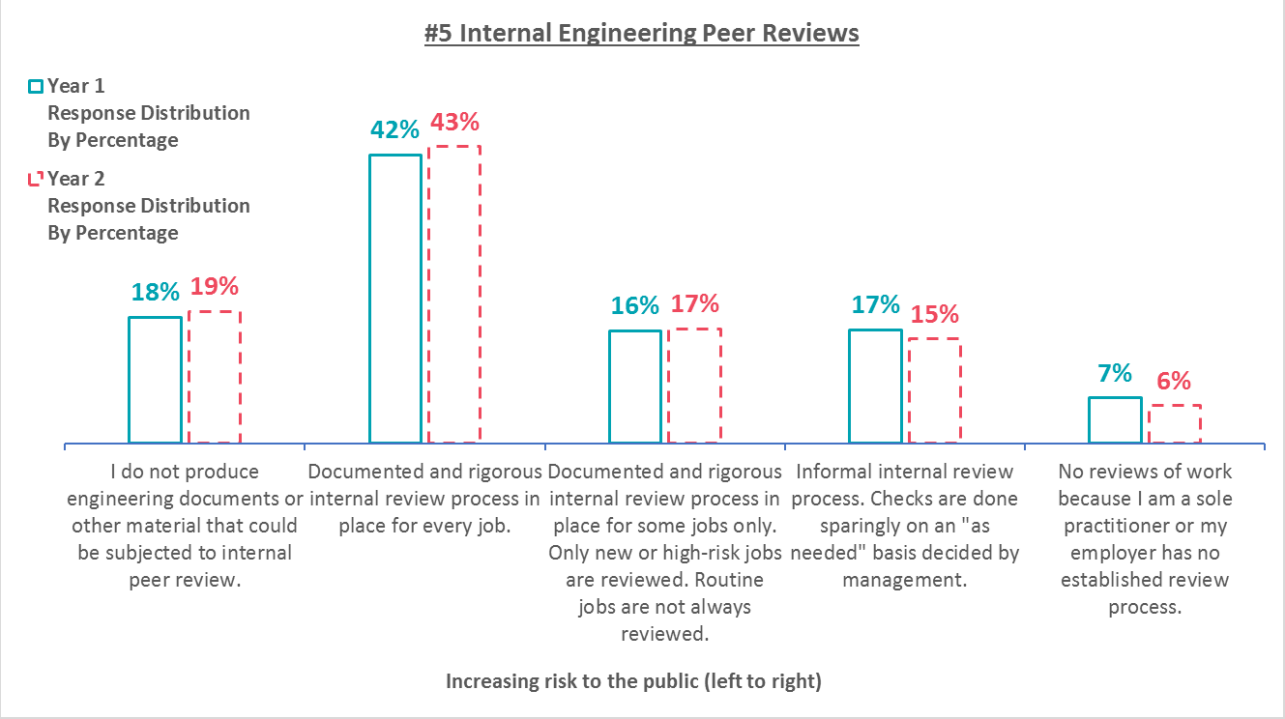
6.6 Responses to the Practice Evaluation Questionnaire from practising licence holders

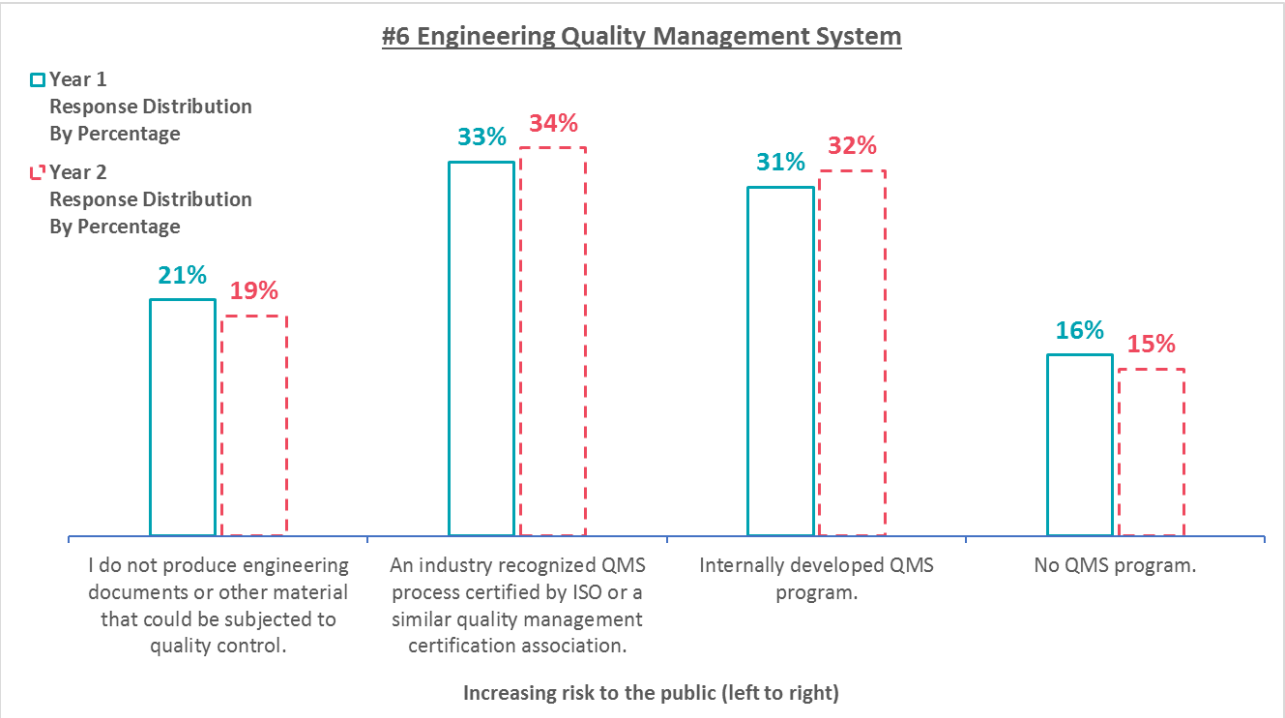


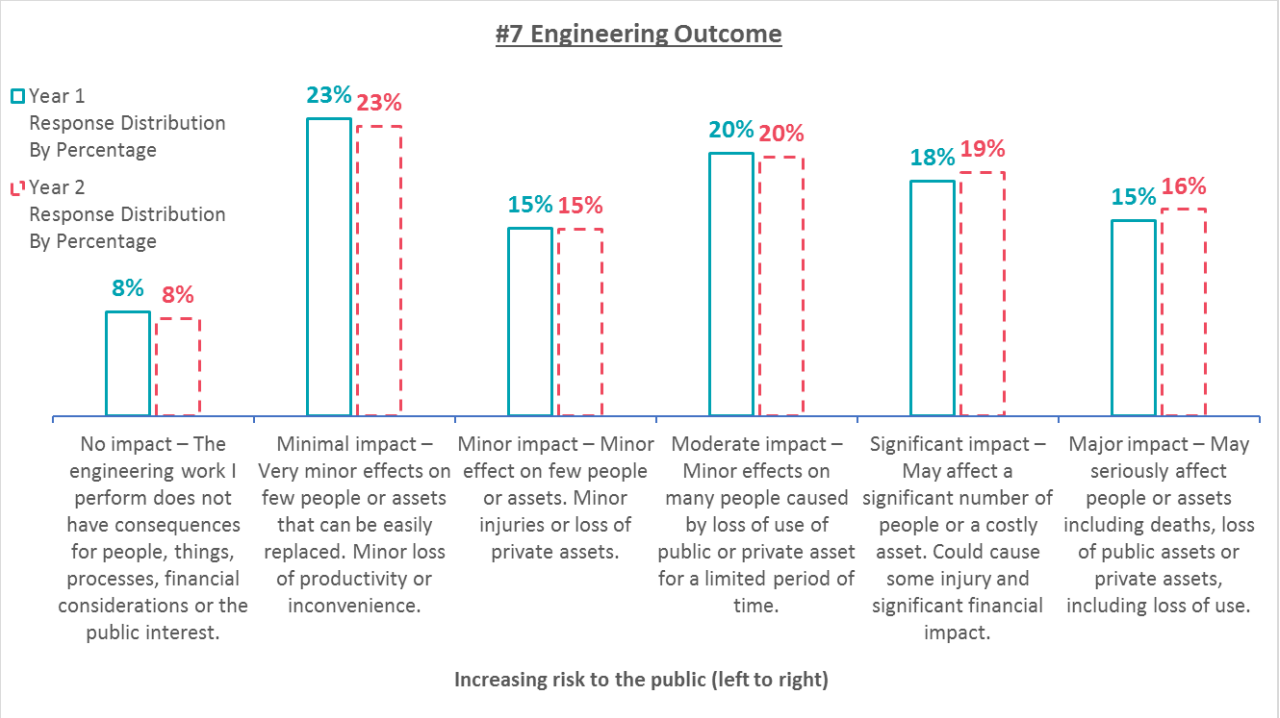


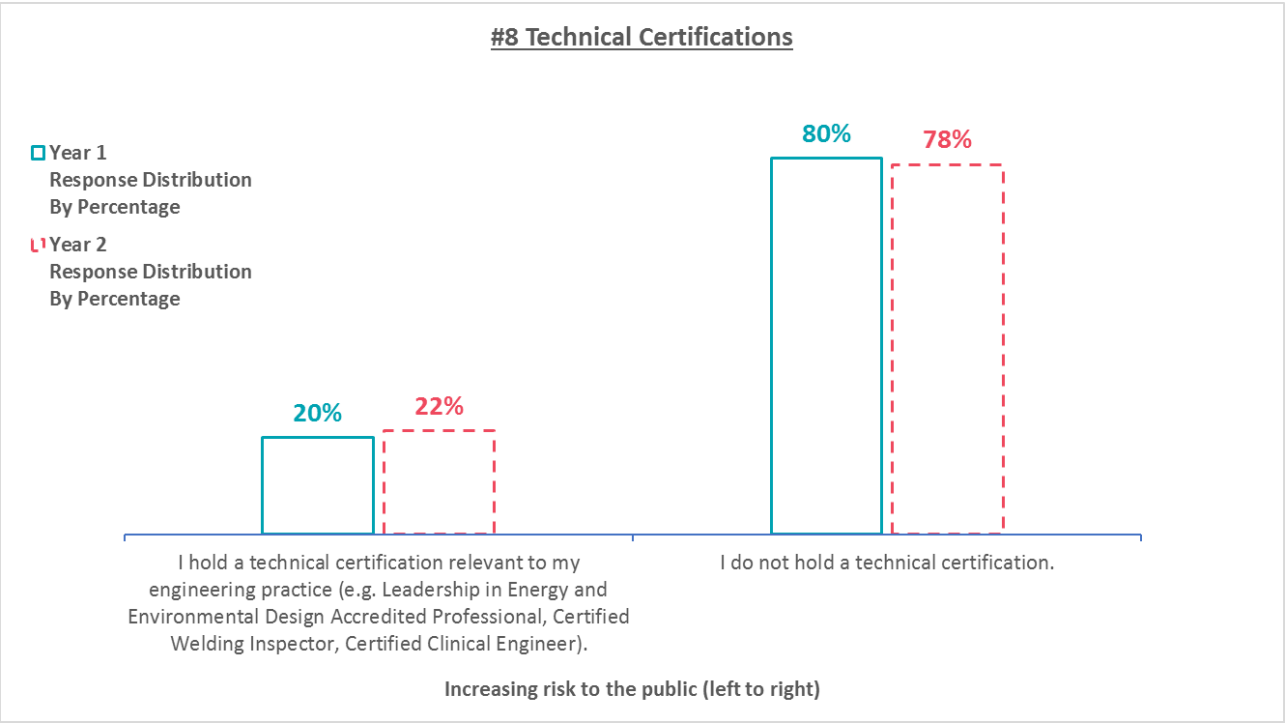

#3 Engineering Standards
Year 1 Response Distribution By Percentage
Year 2 Response Distribution By Percentage
50%
50%
35%
35%
15%
15%
My area of practice is governed by codes established in regulations (e.g. building codes, environmental laws, health and safety regulations).
My area of practice is supported by peer reviewed best practice standards (e.g. ASHRAE or NFPA handbooks, technical journals, established industry best practice guidelines).
My area of practice has few published guidance documents. Engineers must use their own judgment and basic engineering knowledge when deciding how to complete assignments.
Increasing risk to the public (left to right)

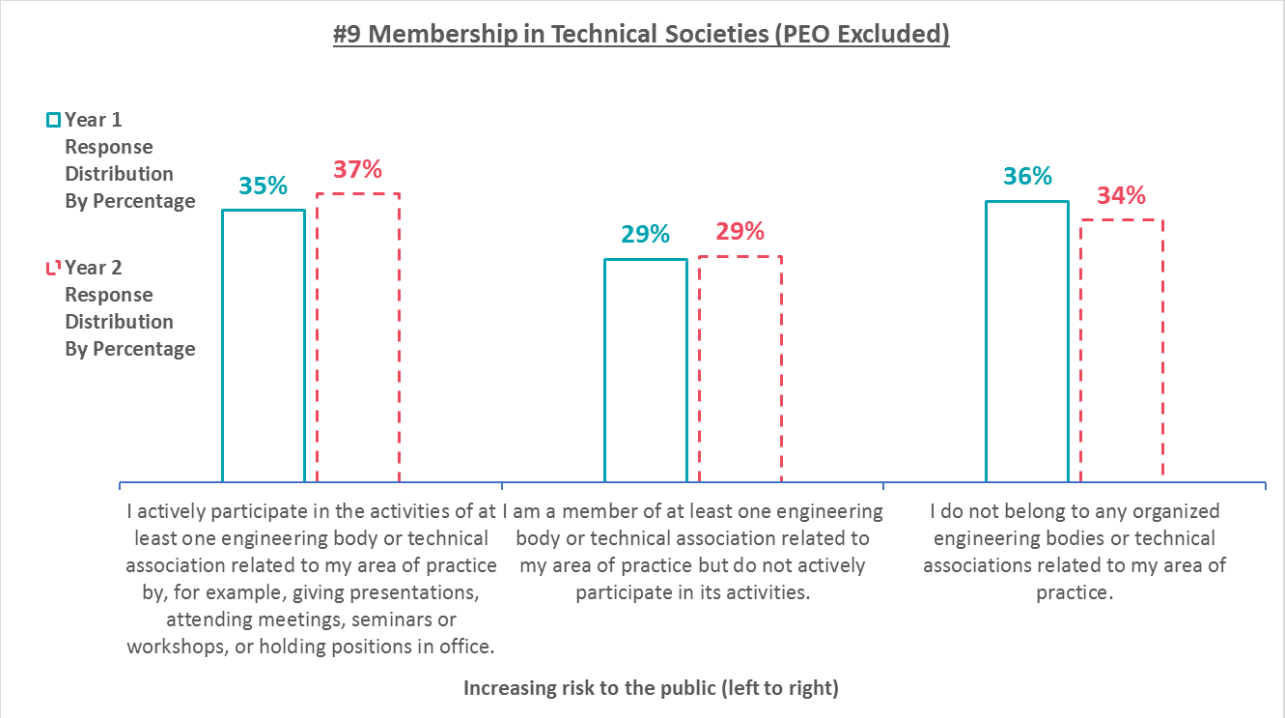

#4 External Engineering Reviews
Year 1 Response Distribution By Percentage
Year 2 Response Distribution By Percentage
14%
13%
25%
25%
13%
13%
13%
13%
23%
23%
13%
13%
I do not prepare engineering documents.
I am a reviewer of engineering documents.
Technical reviews of my engineering documents are performed by a regulatory body (e.g. Canadian Nuclear Safety Commission, Electrical Safety Authority).
Non-technical reviews of my engineering documents are performed by a regulatory body (e.g. Municipal Building Department, Ministry of Transportation).
Non-mandatory technical or non-technical reviews of my engineering documents are performed by non-regulatory persons (e.g. contractor, client).
My engineering documents are not externally reviewed.
Increasing risk to the public (left to right)

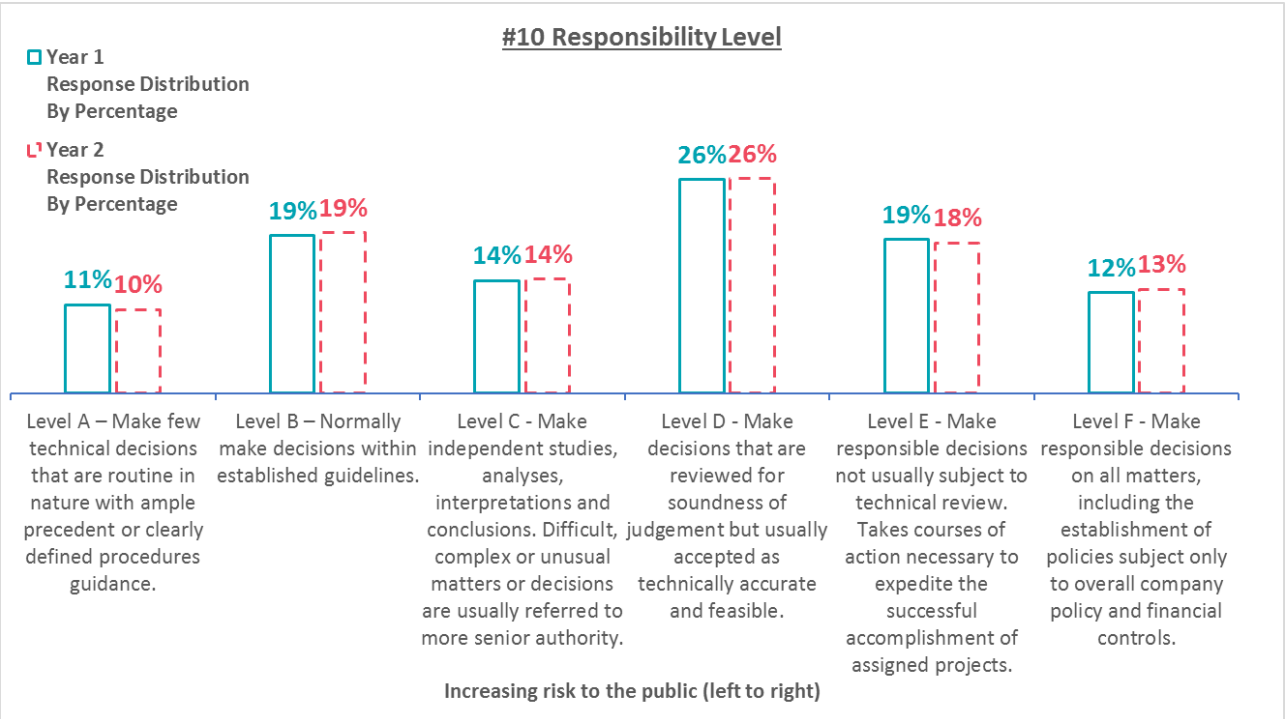

#5 Internal Engineering Peer Reviews
Year 1 Response Distribution By Percentage
Year 2 Response Distribution By Percentage
18%
19%
42%
43%
16%
17%
17%
15%
7%
6%
I do not produce engineering documents or other material that could be subjected to internal peer review.
Documented and rigorous internal review process in place for every job.
Documented and rigorous internal review process in place for some jobs only. Only new or high-risk jobs are reviewed. Routine jobs are not always reviewed.
Informal internal review process. Checks are done sparingly on an "as needed" basis decided by management.
No reviews of work because I am a sole practitioner or my employer has no established review process.
Increasing risk to the public (left to right)

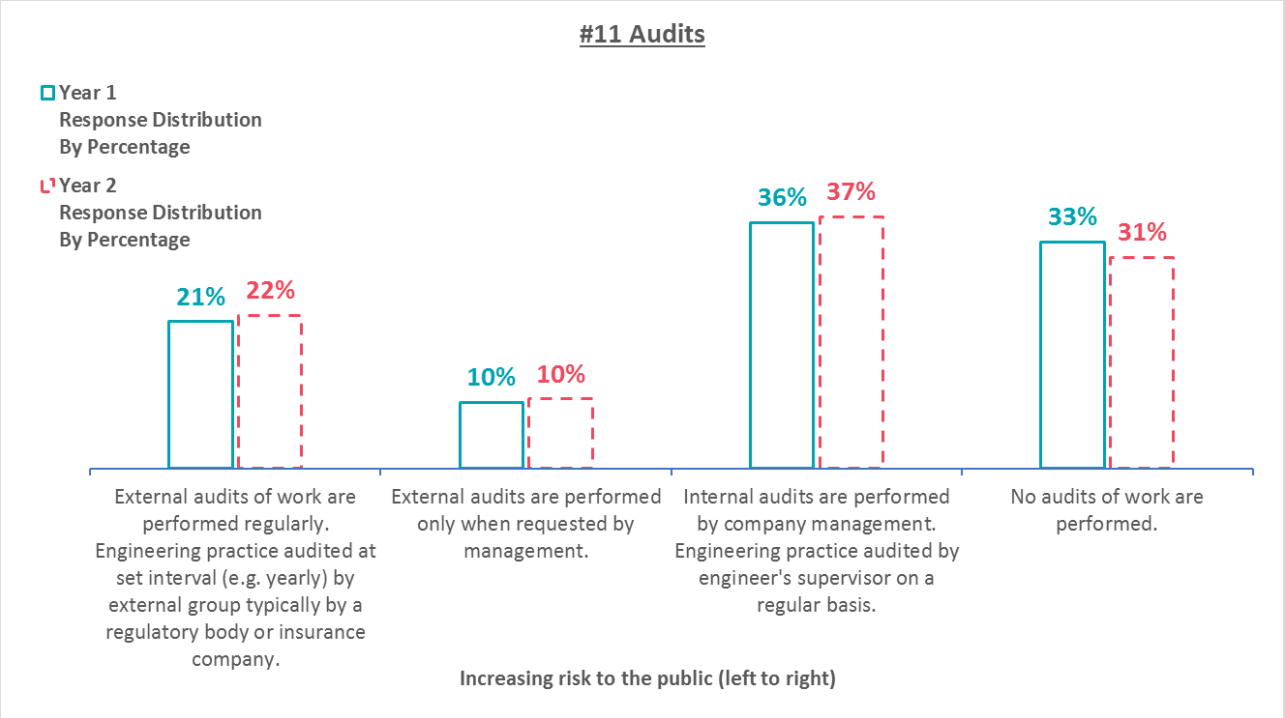

#6 Engineering Quality Management System
Year 1 Response Distribution By Percentage
Year 2 Response Distribution By Percentage
21%
19%
33%
34%
31%
32%
16%
15%
I do not produce engineering documents or other material that could be subjected to quality control.
An industry recognized QMS process certified by ISO or a similar quality management certification association.
Internally developed QMS program.
No QMS program.
Increasing risk to the public (left to right)

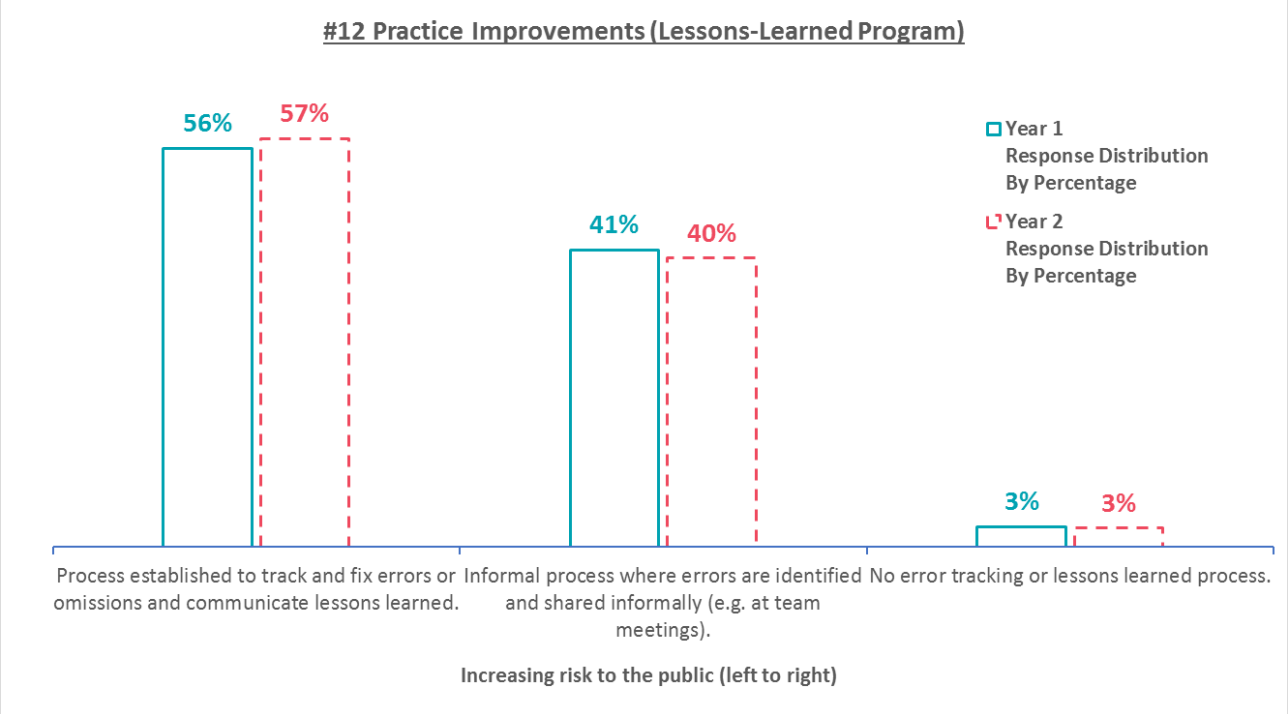

#7 Engineering Outcome
Year 1 Response Distribution By Percentage
Year 2 Response Distribution By Percentage
8% 8%
23% 23%
15% 15%
20% 20%
18% 19%
15% 16%
No impact – The engineering work I perform does not have consequences for people, things, processes, financial considerations or the public interest.
Minimal impact – Very minor effects on few people or assets that can be easily replaced. Minor loss of productivity or inconvenience.
Minor impact – Minor effect on few people or assets. Minor injuries or loss of private assets.
Moderate impact – Minor effects on many people caused by loss of use of public or private asset for a limited period of time.
Significant impact – May affect a significant number of people or a costly asset. Could cause some injury and significant financial impact.
Major impact – May seriously affect people or assets including deaths, loss of public assets or private assets, including loss of use.
Increasing risk to the public (left to right)

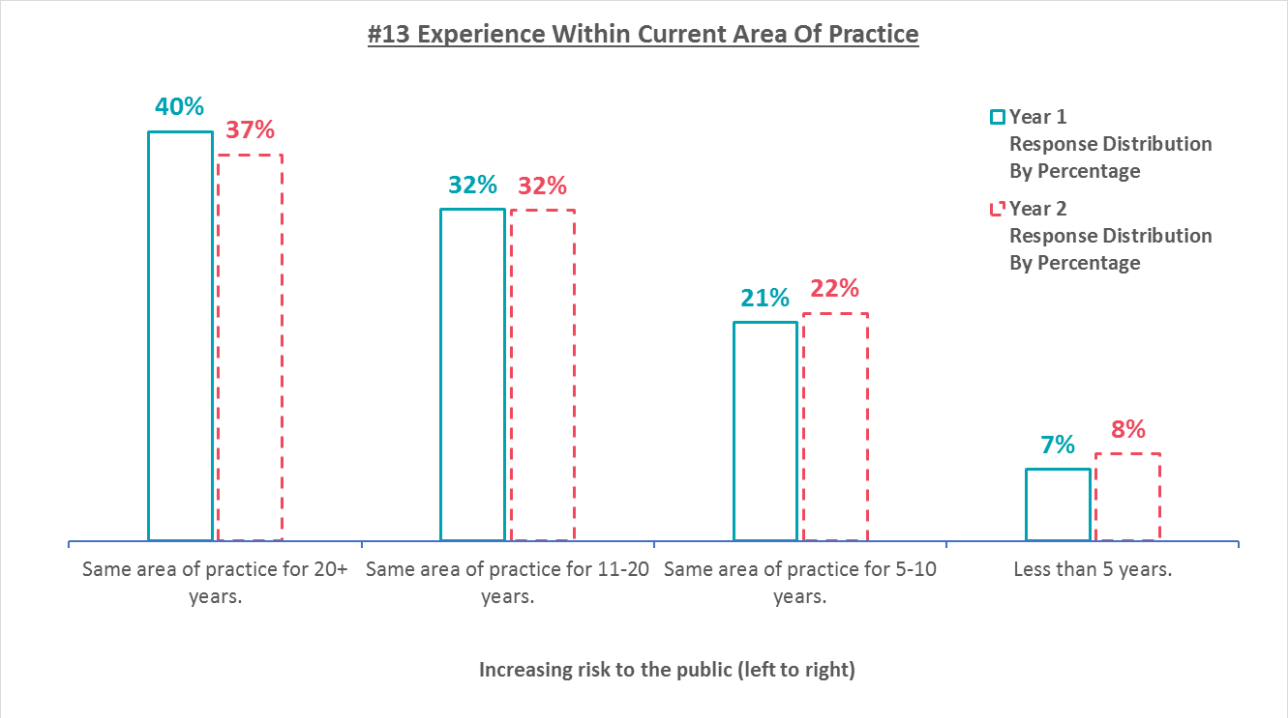

#8 Technical Certifications
Year 1 Response Distribution By Percentage
Year 2 Response Distribution By Percentage
20% 22%
80% 78%
I hold a technical certification relevant to my engineering practice (e.g. Leadership in Energy and Environmental Design Accredited Professional, Certified Welding Inspector, Certified Clinical Engineer).
I do not hold a technical certification.
Increasing risk to the public (left to right)

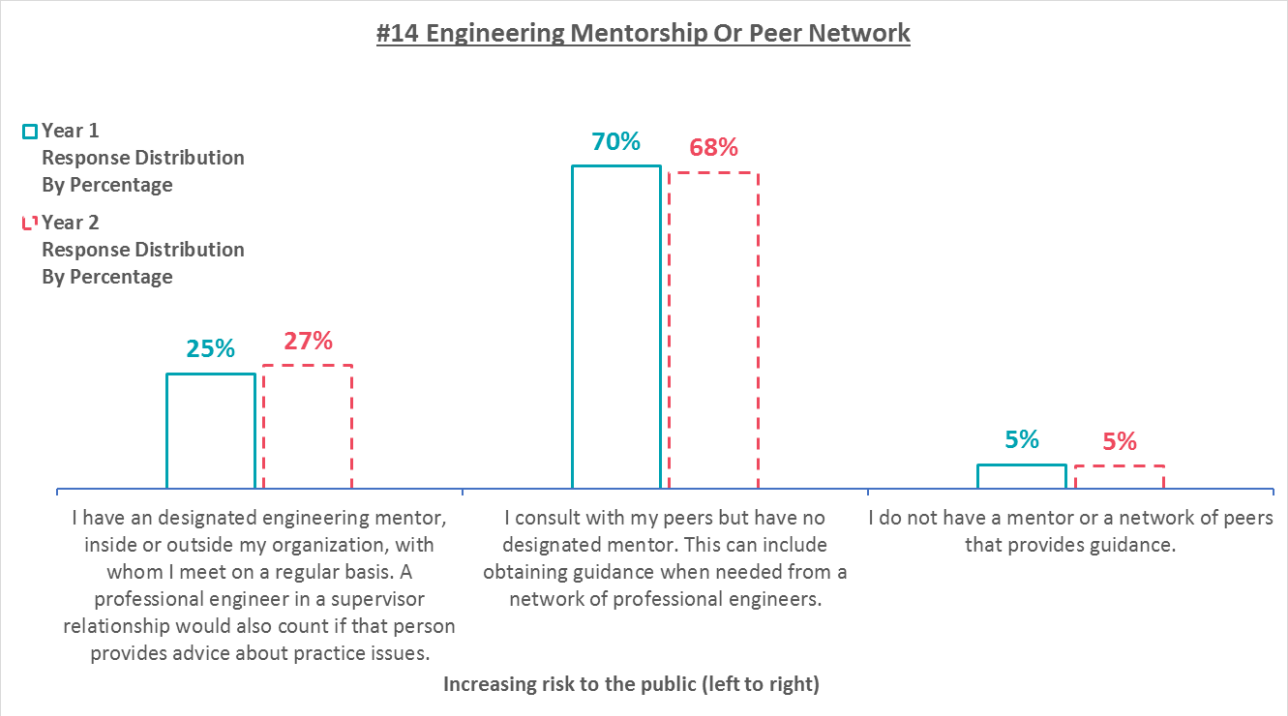

#9 Membership in Technical Societies (PEO Excluded)
Year 1 Response Distribution By Percentage
Year 2 Response Distribution By Percentage
35%
37%
29%
29%
36%
34%
I actively participate in the activities of at least one engineering body or technical association related to my area of practice by, for example, giving presentations, attending meetings, seminars or workshops, or holding positions in office.
I am a member of at least one engineering body or technical association related to my area of practice but do not actively participate in its activities.
I do not belong to any organized engineering bodies or technical associations related to my area of practice.
Increasing risk to the public (left to right)

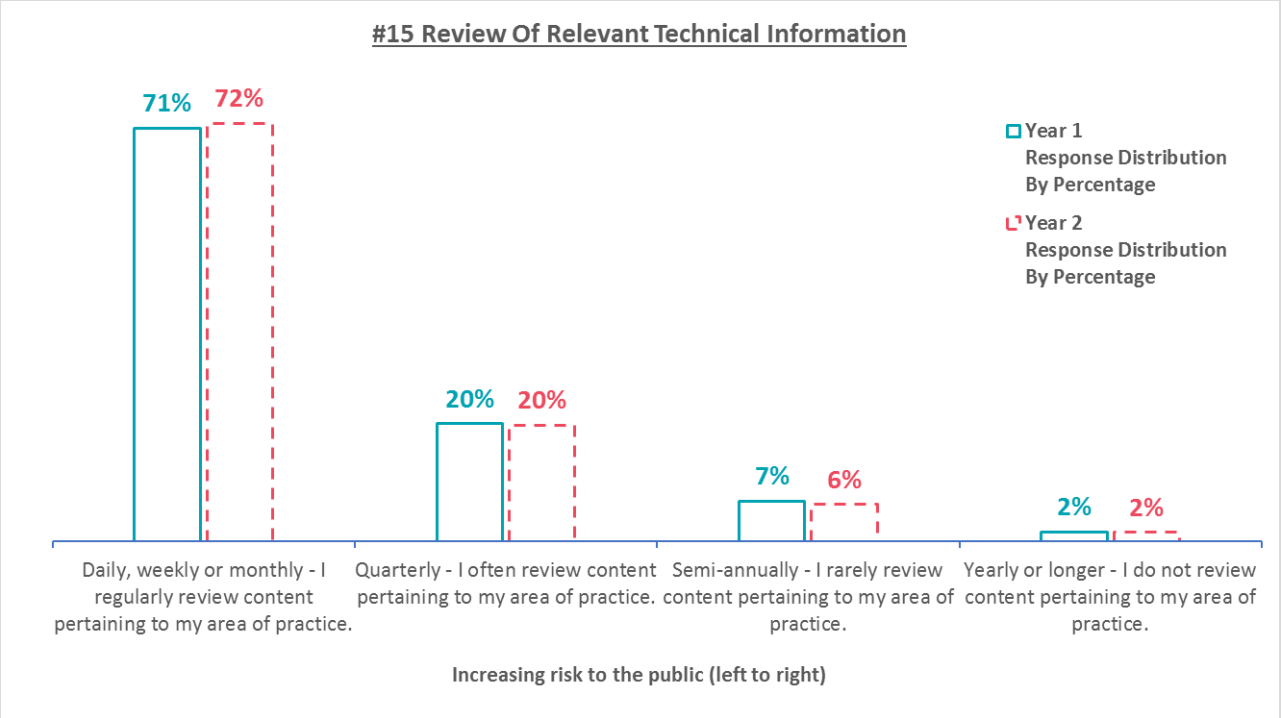

#10 Responsibility Level
Year 1 Response Distribution By Percentage
Year 2 Response Distribution By Percentage
11%
10%
19%
19%
14%
14%
26%
26%
19%
18%
12%
13%
Level A – Make few technical decisions that are routine in nature with ample precedent or clearly defined procedures guidance.
Level B – Normally make decisions within established guidelines.
Level C - Make independent studies, analyses, interpretations and conclusions. Difficult, complex or unusual matters or decisions are usually referred to more senior authority.
Level D - Make decisions that are reviewed for soundness of judgement but usually accepted as technically accurate and feasible.
Level E - Make responsible decisions not usually subject to technical review. Takes courses of action necessary to expedite the successful accomplishment of assigned projects.
Level F - Make responsible decisions on all matters, including the establishment of policies subject only to overall company policy and financial controls.
Increasing risk to the public (left to right)

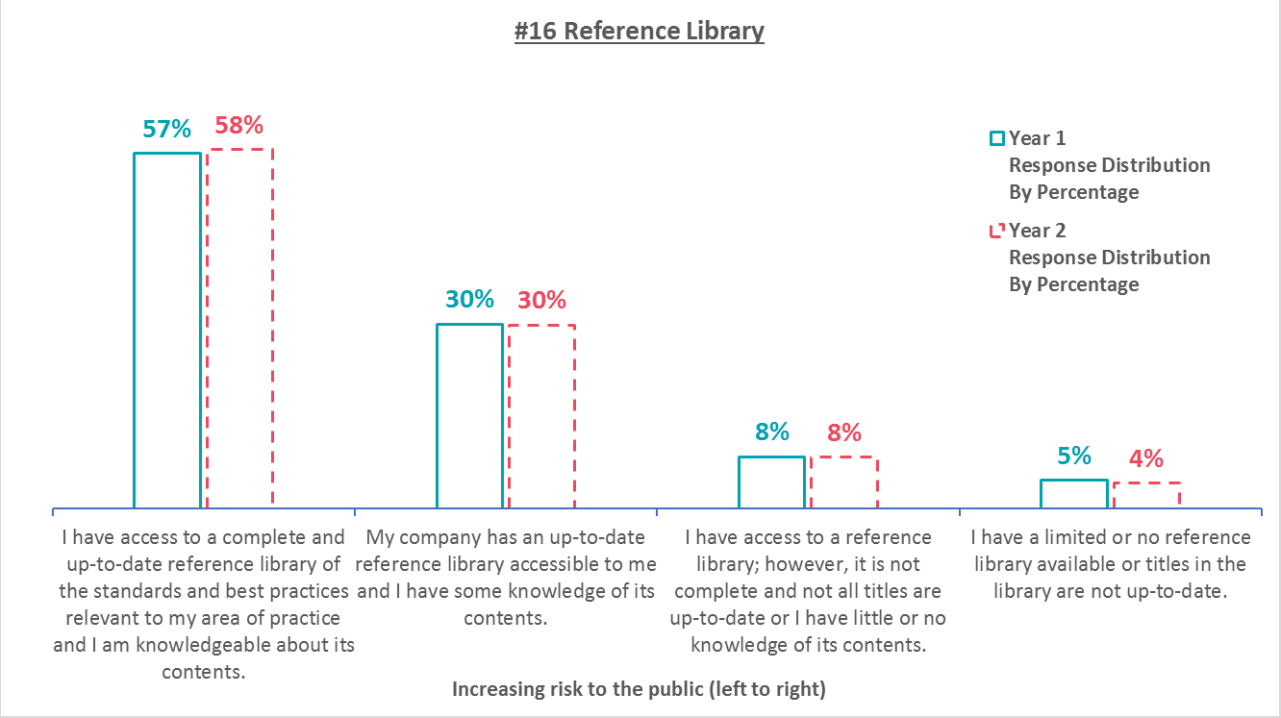

#11 Audits
Year 1 Response Distribution By Percentage
Year 2 Response Distribution By Percentage
21%
22%
10%
10%
36%
37%
33%
31%
External audits of work are performed regularly. Engineering practice audited at set interval (e.g. yearly) by external group typically by a regulatory body or insurance company.
External audits are performed only when requested by management.
Internal audits are performed by company management. Engineering practice audited by engineer's supervisor on a regular basis.
No audits of work are performed.
Increasing risk to the public (left to right)

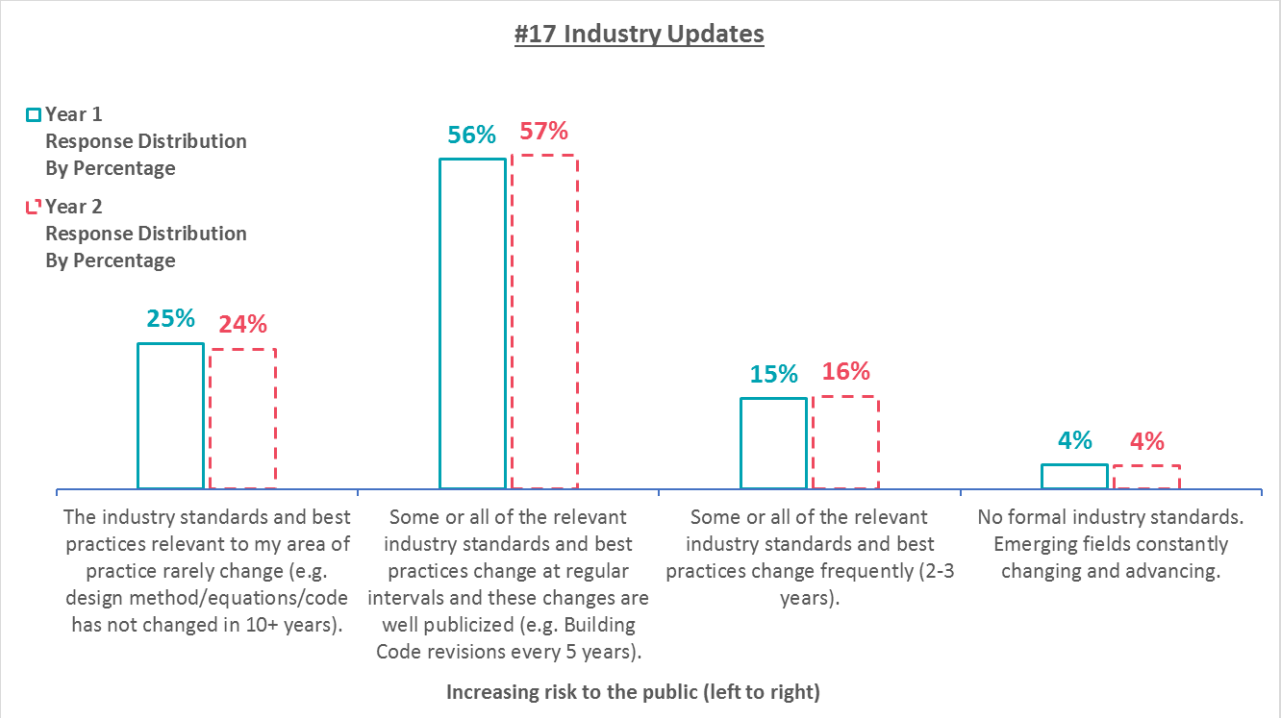

#12 Practice Improvements (Lessons-Learned Program)
56%
57%
41%
40%
3%
3%
Year 1 Response Distribution By Percentage
Year 2 Response Distribution By Percentage
Process established to track and fix errors or omissions and communicate lessons learned.
Informal process where errors are identified and shared informally (e.g. at team meetings).
No error tracking or lessons learned process.
Increasing risk to the public (left to right)

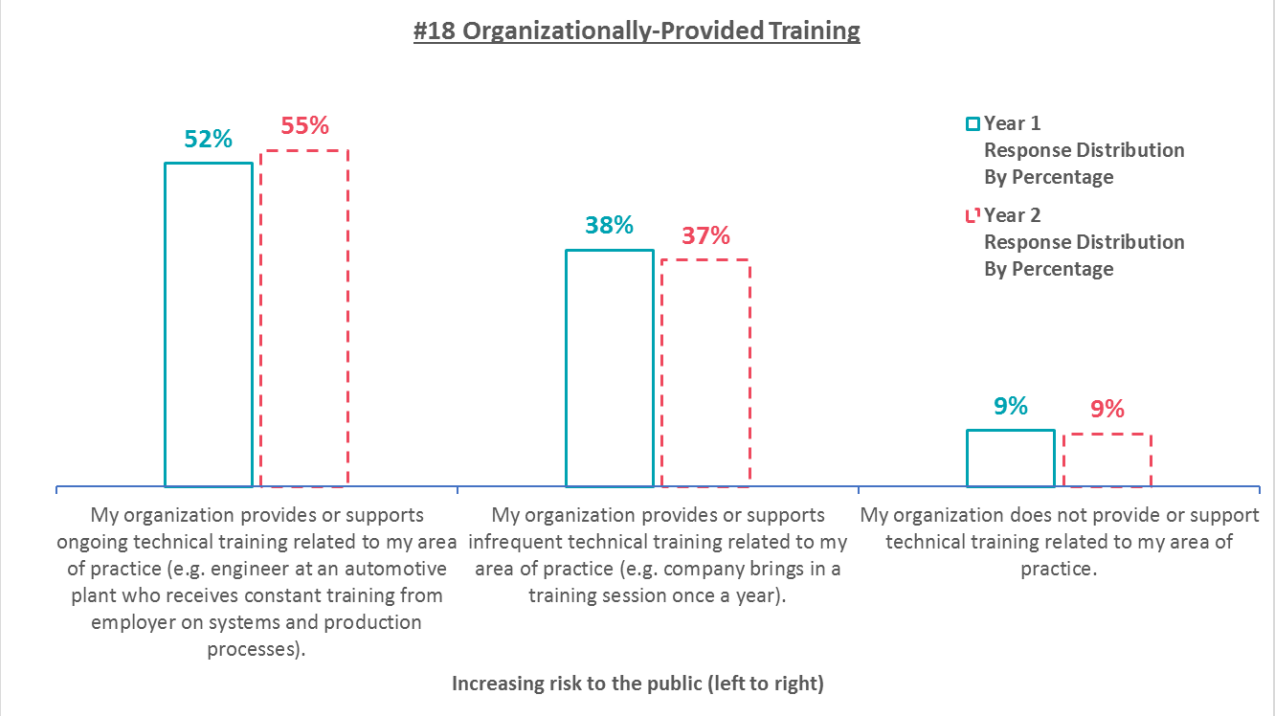

#13 Experience Within Current Area Of Practice
40%
37%
32%
32%
21%
22%
7%
8%
Year 1 Response Distribution By Percentage
Year 2 Response Distribution By Percentage
Same area of practice for 20+ years.
Same area of practice for 11-20 years.
Same area of practice for 5-10 years.
Less than 5 years.
Increasing risk to the public (left to right)

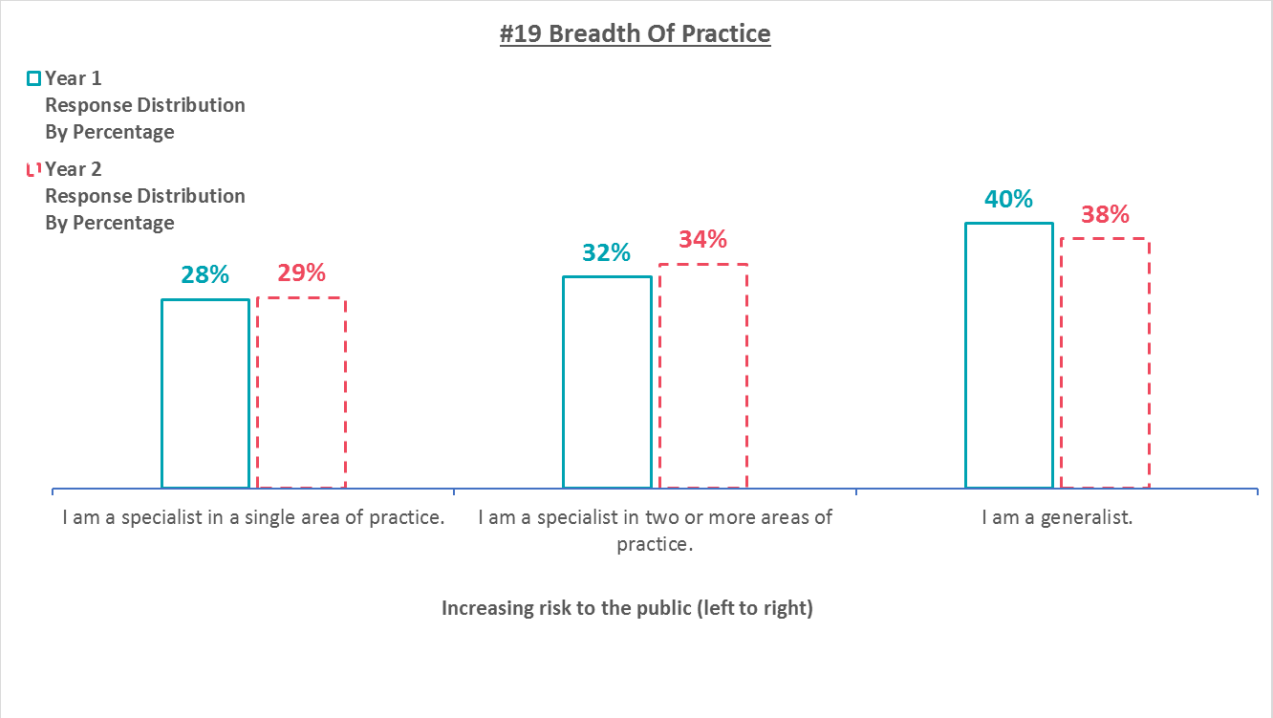

#14 Engineering Mentorship Or Peer Network
Year 1 Response Distribution By Percentage
Year 2 Response Distribution By Percentage
25%
27%
70%
68%
5%
5%
I have an designated engineering mentor, inside or outside my organization, with whom I meet on a regular basis. A professional engineer in a supervisor relationship would also count if that person provides advice about practice issues.
I consult with my peers but have no designated mentor. This can include obtaining guidance when needed from a network of professional engineers.
I do not have a mentor or a network of peers that provides guidance.
Increasing risk to the public (left to right)

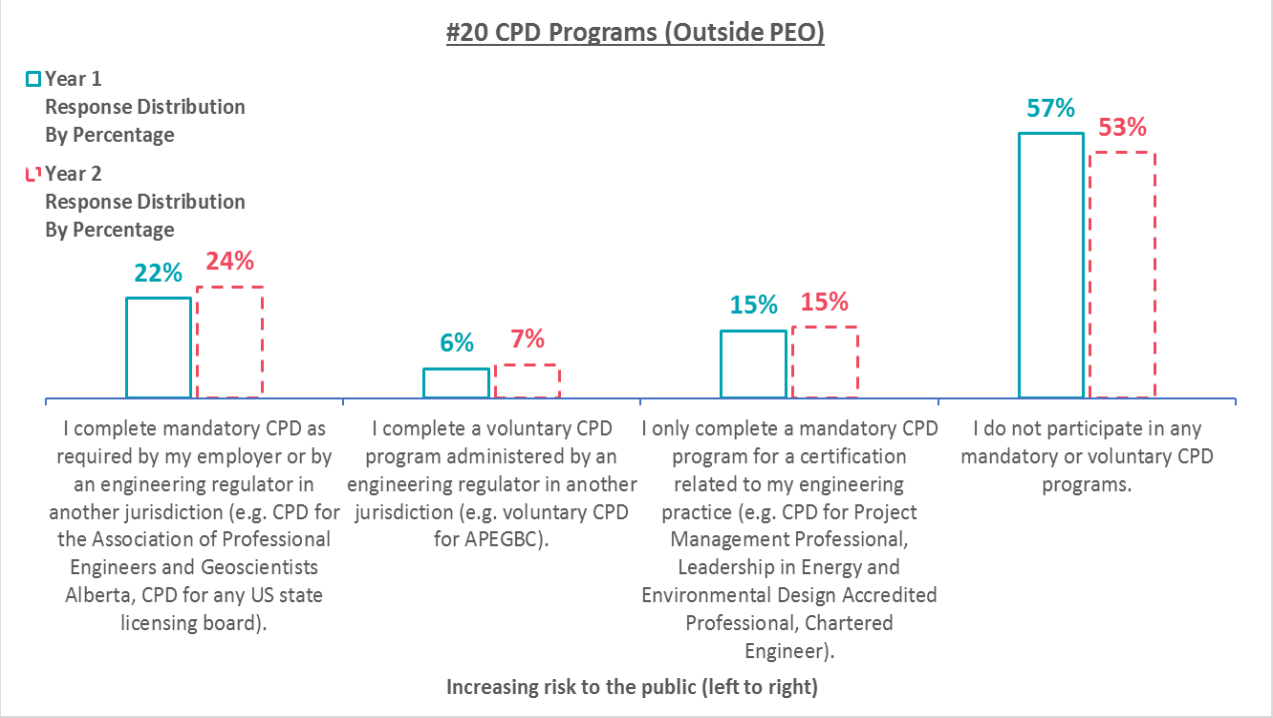

#15 Review Of Relevant Technical Information
71%
72%
20%
20%
7%
6%
2%
2%
Year 1 Response Distribution By Percentage
Year 2 Response Distribution By Percentage
Daily, weekly or monthly - I regularly review content pertaining to my area of practice.
Quarterly - I often review content pertaining to my area of practice.
Semi-annually - I rarely review content pertaining to my area of practice.
Yearly or longer - I do not review content pertaining to my area of practice.
Increasing risk to the public (left to right)


#16 Reference Library
57%
58%
30%
30%
8%
8%
5%
4%
Year 1 Response Distribution By Percentage
Year 2 Response Distribution By Percentage
I have access to a complete and up-to-date reference library of the standards and best practices relevant to my area of practice and I am knowledgeable about its contents.
My company has an up-to-date reference library accessible to me and I have some knowledge of its contents.
I have access to a reference library; however, it is not complete and not all titles are up-to-date or I have little or no knowledge of its contents.
I have a limited or no reference library available or titles in the library are not up-to-date.
Increasing risk to the public (left to right)


#17 Industry Updates
Year 1 Response Distribution By Percentage
Year 2 Response Distribution By Percentage
25%
24%
56%
57%
15%
16%
4%
4%
The industry standards and best practices relevant to my area of practice rarely change (e.g. design method/equations/code has not changed in 10+ years).
Some or all of the relevant industry standards and best practices change at regular intervals and these changes are well publicized (e.g. Building Code revisions every 5 years).
Some or all of the relevant industry standards and best practices change frequently (2-3 years).
No formal industry standards. Emerging fields constantly changing and advancing.
Increasing risk to the public (left to right)


#18 Organizationally-Provided Training
52%
55%
38%
37%
9%
9%
Year 1 Response Distribution By Percentage
Year 2 Response Distribution By Percentage
My organization provides or supports ongoing technical training related to my area of practice (e.g. engineer at an automotive plant who receives constant training from employer on systems and production processes).
My organization provides or supports infrequent technical training related to my area of practice (e.g. company brings in a training session once a year).
My organization does not provide or support technical training related to my area of practice.
Increasing risk to the public (left to right)


#19 Breadth Of Practice
Year 1 Response Distribution By Percentage
Year 2 Response Distribution By Percentage
28%
29%
32%
34%
40%
38%
I am a specialist in a single area of practice.
I am a specialist in two or more areas of practice.
I am a generalist.
Increasing risk to the public (left to right)


#20 CPD Programs (Outside PEO)
Year 1 Response Distribution By Percentage
Year 2 Response Distribution By Percentage
22%
24%
6%
7%
15%
15%
57%
53%
I complete mandatory CPD as required by my employer or by an engineering regulator in another jurisdiction (e.g. CPD for the Association of Professional Engineers and Geoscientists Alberta, CPD for any US state licensing board).
I complete a voluntary CPD program administered by an engineering regulator in another jurisdiction (e.g. voluntary CPD for APEGBC).
I only complete a mandatory CPD program for a certification related to my engineering practice (e.g. CPD for Project Management Professional, Leadership in Energy and Environmental Design Accredited Professional, Chartered Engineer).
I do not participate in any mandatory or voluntary CPD programs.
Increasing risk to the public (left to right)

6.7 Advertisements for the PEAK program

6.8 Brochures for the PEAK program

ABOUT

Beginning March 31, 2017, renewal notices to all current and retired professional engineers, as well as limited licence holders, will contain a request to complete PEO's Practice Evaluation and Knowledge (PEAK) program.

The program is an information gathering tool to help ensure PEO has sufficient information on each licence holder's practice to effectively carry out its role as regulator of the profession. The program also gauges the professional knowledge activities of licence holders.

Practising licence holders are asked to complete a practice evaluation questionnaire and an online ethics module prior to their licence renewal date. Upon completion of the questionnaire, they are provided with an individual continuing knowledge target (in hours) to voluntarily complete and report to PEO prior to their subsequent renewal date the following year.

Non-practising licence holders are only asked to declare they are not practising professional engineering and to complete an online ethics module prior to the date of their licence renewal.

The PEAK program is unlike any other competence assurance reporting program in place today. The program is unique in that it:

- distinguishes between non-practising and practising licence holders;
- takes into account the risks to the public associated with the licence holder's scope(s) of practice and practice environment;
- allows practising licence holders to design their own knowledge plan to align with their area of practice and the available opportunities; and
- focuses only on technical activities relevant to a practising licence holder's work environment.

The PEAK program can be accessed through the member portal on PEO's website at **www.peo.on.ca** or by visiting **www.peopeak.ca**.

Let's examine the PEAK program for practising and non-practising licence holders using hypothetical examples. For both George and Nicole, the first step of the process is identical. When they receive their annual licence renewal notice, they are asked to begin the program by logging in to their account in the PEO member portal at www.peo.on.ca, clicking on the PEAK tab and selecting the PEAK Questionnaire option.

MEET GEORGE

George is an executive who keeps his designation as a credential.

1. Before his renewal date, George self-identifies as a non-practising licence holder and declares his practice status. PEO's online directory of practitioners will show he has completed this element of the program.

2. He then completes an ethics module—an hour-long online refresher on professionalism and ethics—prior to his licence renewal date. The online directory will reflect that he has completed this element of the program.
3. George is done. He has completed the PEAK program for his licence cycle.

MEET NICOLE

Nicole is a structural engineer at a design-build firm.

1. Nicole self-identifies as a practising licence holder and completes the practice evaluation questionnaire before her upcoming licence renewal date. She spends 20 minutes answering brief questions about her practice environment, including her discipline, team role, responsibility level and risks related to errors/omissions. PEO's online directory of practitioners will show she has completed this element of the program. Based on her responses, she is recommended to undertake 16 hours of continuing knowledge activities.
2. Nicole then completes the ethics module before her licence renewal date. The online directory will reflect that she has completed this element of the program.
3. During the year, Nicole participates in continuing knowledge activities that she feels best align with her practice area by reading technical journals, attending seminars and mentoring EITs.

Before her next renewal date, Nicole reports her continuing knowledge activities to PEO using the My PEAK Activities tool found under the PEAK tab in the member portal. The online directory will show she has completed this element of the program.

4. Nicole is done. She has completed the PEAK program for her licence cycle.

Practice Evaluation and Knowledge (PEAK) program

ELEMENTS OF THE PEAK PROGRAM
1. Practising declaration and questionnaire
2. Refresher video module on ethics and professionalism
3. Reporting your continuing knowledge activities (practising licence holders only)

PEAK OBJECTIVES
- To publish practice status and PEAK program compliance as a matter of public interest
- To show your commitment to safeguarding the public interest through continuing competence, professionalism, accountability and self-regulation
- To provide PEO with an accurate regulatory profile of its licence holders

WHERE CAN YOU COMPLETE THE PEAK PROGRAM?
The program can be accessed online via PEO's portal at secure.peo.on.ca. Log in to your account and seek out the PEAK menu to begin.

ARE YOU PRACTISING ENGINEERING IN ONTARIO?
You are practising if you:
1. Perform specific actions described in the *Professional Engineers Act*
2. Apply engineering principles
3. Safeguard the public interest

You are practising engineering in Ontario when your engineering activities are carried out, or are for projects, in Ontario.

YOU COULD BE PRACTISING ENGINEERING EVEN WHEN:
- You do not apply your seal to an engineering document
- You do not have a job title that specifies 'engineer'
- You perform engineering activities for yourself and to your employer but not a client
- Your projects are provided on a pro bono or volunteer basis

PRACTISING?
Every year, you will be provided a recommended number of hours for continuing knowledge activities (up to a maximum of 30 hours) based on your responses to the practice evaluation questionnaire.

Types of Continuing Knowledge Activities
Formal Education: Completing technical courses and programs with curricula, instructing and examinations.

Informal Education: Reading technical texts (incl. books, manuals, codes, regulations, standards, commentaries); attending workshops, conferences, seminars and webinars, lunch-and-learns, and chapter-led and industry-led events; and engaging in certain peer discussions and receiving technical mentoring.

Contributions to knowledge: Writing technical papers or books; delivering technical presentations or courses; certain technical committee work; and delivering certain mentoring activities.

PEO does not endorse providers of continuing knowledge activities. Nor does it evaluate the educational value of an activity. You determine which activities are relevant to your disciplines, sufficiently technical for your needs and convenient to undertake.

NON-PRACTISING?
Non-practising licence holders are exempt from any continuing knowledge activities under the program.

IS PEAK MANDATORY?
No. You do not need to complete the PEAK program to renew your PEO licence. However, PEO will publish your PEAK completion statuses on its online directory of licence holders.

Professional Engineers Ontario

PEAK
REACHING NEW HEIGHTS

LEARN MORE AT PEOPEAK.CA
E: peoPEAK@peo.on.ca
T: 416-224-1100 | 800-339-3716

ADDITIONAL PEO SUPPORT SERVICES
Advisory and enforcement team
E: enforcement@peo.on.ca

Practice advisory team
E: practice-standards@peo.on.ca

DUE DATES EXPLAINED

WHO SHOULD PARTICIPATE IN THE PEAK PROGRAM?

Elements of the PEAK program	Practising licence holder	Non-practising licence holder	Engineering Interns (EITs) [1] First-year licence holders [1,2] Temporary and provisional licence holders
1. Practice declaration & practice evaluation questionnaire	✔ ✔	✔ ✖	✖ ✖
2. Ethics refresher	✔	✔	✖
3. Continuing knowledge activity reporting	✔	✖	✖

[1] EITs and first-year licence holders should become familiar with the PEAK program for when they become eligible.
[2] First-year licence holders are P.Engs and limited licence holders who were granted licences within the past year.

EXAMPLES OF CONTINUING KNOWLEDGE ACTIVITIES

RECOGNIZED by the PEAK program
- Passed a class on engineering design methodologies
- Completed a course on software simulation strategies
- Passed a course for an industrial sector certification

▲ Read a publication on changes to codes, standards or regulations
▲ Attended employer's lunch-and-learn on methods of analysis and design
▲ Attended a seminar or webinar on communicating engineering information
▲ Attended a vendor's workshop on the engineering features of their products
▲ Attended a workshop on managing engineering activities involving supervising engineers and incorporating codes, standards and best practices
▲ Attended a chapter-organized event on design applications

- Developed a guideline or standard on industry best practices
- Delivered a seminar on engineering lessons learned
- Delivered a webinar on preparing and reviewing engineering documents
- Provided technical mentoring to interns or colleagues

NOT RECOGNIZED
- Practising hours
- Project management and scheduling
- Time management
- Business management
- Fiscal management
- Non-engineering communications
- Leadership
- Public speaking
- Coaching techniques
- Etiquette
- Organizing skills
- Equity, equality and diversity

6.9 List of references

1. April 2019 – Report of the external review of PEO's regulatory performance.
2. April 2019 – Verdict of the Coroner's Inquest into the death of Scott Johnson.
3. June 2018 – Report on Year 1 of the PEAK Program, by PEO.
4. November 2016 – Final Report, by PEO's task force on continuing professional competence program (CPCP).
5. November 2015 – Final Report, by PEO's task force on continuing professional development, competence and quality assurance (CPDCQA).
6. October 2014 – Report of the Elliot Lake Commission of Inquiry.
7. June 2013 –Report on continuing professional development, by OSPE.