OPTOMETRY EXAMINING BOARD OF CANADA

BUREAU DES EXAMINATEURS EN OPTOMÉTRIE DU CANADA

Optometry Examining Board of Canada

Summary Report 2018-19

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2018-19 ADMINISTRATION RESULTS ❯

ASSESSING COMPETENCY WITH CONFIDENCE ❯

Report Purpose and Use

The annual exam report provides OEBC members and stakeholders, including the public, with information about the performance of the OEBC exam. The reporting period is October 1 to September 30.

Optometry regulators rely on the OEBC exam for the purpose of registration, i.e. that individuals who have passed the OEBC exam have met the minimum required competence for registration to practice. This report including exam reliability statistics provides assurance to the regulatory bodies that they may rely on the OEBC exam for the purpose intended. This report is presented to OEBC members and published on the OEBC website annually.

This report may be relied upon as evidence of exam reliability and validity, in showing that the exam:
1) is based on the national competencies developed and validated by optometrists across Canada;
2) adheres to the OEBC blueprint specifications developed from the national competencies;
3) contains content written and reviewed by Canadian practicing optometrists, reflecting everyday professional and clinical scenarios;
4) is standardized. Comparable to exams for other Canadian health professions, the OEBC assessment of competence allows all OEBC candidates to have the same test experience;
5) is scored by qualified psychometricians using standardized data analysis;
6) follows testing best practice and independent standards.

NB: Examination statistics in this report are approved by Martek Assessments Ltd. and OEBC's principal psychometrician A. Marini, PhD.

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What is OEBC?

The Optometry Examining Board of Canada (also called "OEBC") is the national examining body for optometry incorporated as a not-for-profit corporation in 1995 as "Canadian Examiners in Optometry." Its members are the ten provincial regulatory bodies of optometry in Canada who elect the board of directors of OEBC. The board governs the corporation and the CEO manages the operations.

OEBC creates and administers a legally valid and defensible examination to assess competence in the practice of optometry in Canada. OEBC's values are a commitment to trust, integrity, transparency, engagement and responsibility. OEBC's exam services and policies are described at oebc.ca.

Send communication inquiries to exams@oebc.ca.

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A Message from our Chief Executive Officer

As OEBC continues to carry out the development and delivery of a valid, defensible entry-to-practice exam, we focused this year on a review of our exam blueprint and redesign based on the final recommendations of a consensus-based working group made up of experienced optometrists. Regular review and improvement of the OEBC exam is part of our ongoing effort to live our values and commitment to trust, integrity, transparency, engagement and responsibility.

OEBC Exam

In November 2018 and May 2019, OEBC held the fourth and fifth consecutive administrations of the OEBC exam with a written exam and a practical exam (Objective Structured Clinical Exam or "OSCE"). The OSCE was held in Hamilton with the support of an experienced standardized patient program.

The OSCE and Standardized Testing

Entry to practice examinations cover knowledge and skills directly related to entry to practice (2014 Standards for Educational and Psychological Testing). The OSCE uses models that simulate eye anatomy and along with other tools used in a clinical scenario facilitate "Assessment" competence testing. These models are described with photos in the "Candidate Instructions & Exam Guide" at oebc.ca. This year's annual report includes a description of the models "Four New Models" as well as a profile of our model developer. See "Developer Profile: Dwayne Lonsdale" where Dr. Lonsdale speaks to the development of optometry models for the OEBC exam.

TAMI HYNES
Chief Executive Officer

"Our mission is to create and administer a legally valid and defensible examination to assess competence in the practice of Optometry in Canada"

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Exam Blueprint Review

In December 2018, OEBC announced an exam blueprint review in support of the board's goal for the most cost-effective, valid entry-to-practice exam. Prior to this, in 2017, OEBC updated the exam to bring it into line with new competencies set by the profession and gold-standard testing methods (2015 The Definitive Guide to the OSCE). Optometry regulators were invited to participate in the blueprint working group to recommend changes.

Participants for the blueprint review group included practicing optometrists with expertise in the OEBC exam and practicing optometrists from two regulatory bodies. The group reviewed the exam and recommended changes that would better position content and optimize resources to deliver the most cost effective, valid examination possible. At the initial meeting, all participants engaged fully in the blueprint review process using a consensus-based methodology. Test consultants including OEBC's principal psychometrician guided the work of the optometrists. The proposed changes were presented to the ten provincial optometry regulators, Canadian optometry schools and other stakeholders for feedback which informed the final recommendations of the Working Group for the Exam Redesign. More information can be found at oebc.ca, "Preparing for the Exam."

Exam Blueprint Redesign

The redesigned exam blueprint will best use resources to deliver the most cost effective, valid and defensible exam. Beginning in 2020, the written exam is reduced from 62 to 58 cases and some content has moved to the OSCE. The OSCE length is reduced from 16 to 12 stations, with 9 interactive and 3 noninteractive stations. Communication and professionalism are assessed across all interactive stations and there is increased weight for diagnosis and planning. OEBC announced the changes to stakeholders and to candidates on its website in May 2019.

"Volunteering refreshes your clinical and optometric knowledge. And you can catch up with colleagues!"
— *S. Farrag, OD*

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The redesigned exam will be offered starting in spring 2020. Candidates attempting the "early" attempt written in fall 2019 and the OSCE in spring 2020 will take the current written exam and the redesigned OSCE. The written exam and OSCE components must be independently and successfully completed within eligibility timelines for the candidate to achieve an overall pass of the OEBC exam.

Exam Policies

OEBC exam policies published on the website are enforced by staff with necessary professional (optometrist) and legal counsel review. Level 2 and 3 appeals are administratively supported by staff and decisioned in the form of a legal hearing by optometrists not involved in the exam. There were 3 administrative changes to exam policies between October 2018 to September 2019, as follows.

- Fees – in June, OEBC lowered the exam fee from $5900 to $5100. Between 2015-2019, fees helped support development costs related to the new entry-to-practice exam. A new exam fee is intended to maintain exam development and administration and OEBC's continued commitment to exam defensibility and sustainability. More information can be found at oebc.ca under "Fees."
- Expired Passport & Change of Name – updated Identification and Change of Name policies to continue to ensure exam security while providing options and direction on a broader range of matters relating to ID and name change. See "Exam Registration" at oebc.ca.
- Dress Code & Exam Security – OEBC updated the exam Dress Code policy to direct candidates on how to request approval to wear a head covering or jewelry for religious or medical reasons. The updated policy maintains exam security while protecting individual rights under the Ontario Human Rights Code. See "Candidate Guide" at oebc.ca.

"Patients can be confident that the optometrist they are seeing has met rigorous and standardized guidelines regardless of where they have graduated."

— *K. Mowbray, OD*

Strategic initiatives

OEBC continues to migrate to online services with the introduction of secure portals, i.e. an OEBC Volunteer Portal for volunteer management and a Regulator Portal for candidate pass results. OEBC will continue to confirm individual candidate pass/fail results at a regulator's request (see Publication of Exam Results at oebc.ca). The two portals are expected to be online December 2019.

With the support of its psychometrician, OEBC reviewed and updated internal exam operating procedures, assuring ongoing compliance with the independent, external testing standards for high-stakes exams.

Other planned strategic initiatives such as updating the website for increased fairness and transparency were postponed to focus on the exam redesign, originally intended as part of a blueprint update in 2021-22.

OEBC is considering and planning 2019-20 strategic initiatives such as a proactive independent exam audit of examination policies and procedures and beginning to prepare for a renewed competency profile.

Tami Hynes
Chief Executive Officer

"In 2020, the redesigned exam blueprint will best use resources to deliver the most cost effective, valid and defensible exam"

Volunteer Profile: Dwayne Lonsdale

When OEBC was updating the exam in 2016-17 to reflect the competency profile, subject matter experts (optometrists and experienced OEBC exam volunteers) determined that optometric ocular models were optimal for standardized testing of competencies involving psychomotor skills while maintaining authenticity. The trend in high-stakes testing is to move away from the use of live patients whenever possible, since their use creates significant challenges for standardization and therefore fairness, defensibility and reliability. As principal psychometrician Dr Anthony Marini states, "Ocular models contribute significantly to exam standardization resulting in a fair and valid exam." The implementation of ocular models addresses this issue directly.

Furthermore, as Dr. Dwayne Lonsdale explains, "a person with an ocular emergency won't be sitting around… as a standardized patient, they will be off getting medical/surgical treatment for their pathology."

An exam volunteer since 2011, Dr. Dwayne Lonsdale has been OEBC's Chief Model Specialist since 2017. Born and raised in Edmonton AB, he has over 20 years experience in the optical industry. He began practice in Ontario and owns a full scope, solo practice in Calgary. Dr. Lonsdale received his optometry degree from the University of Waterloo.

Dr. Lonsdale, who spearheaded creation of the models used in the exam, recalls implementing the retinoscopy model in 2017. He says, "While commercial retinoscopy models exist, OEBC's investigation revealed that these models are most useful as training tools but did not meet our needs for a high-stakes examination." Through several cycles of development, and considerable hands-on testing by and consultation with other volunteer optometrists, OEBC successfully implemented a high-quality retinoscopy model that uses custom spectacle lenses in a trial to simulate the human eye with a given refractive error.
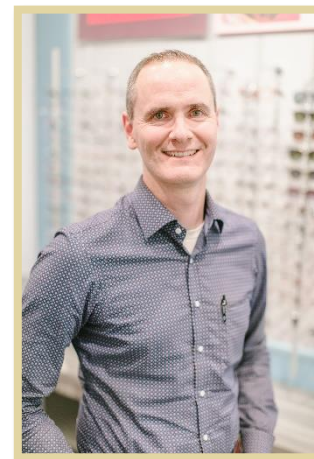
Dwayne Lonsdale, OD has an active solo-practice in Calgary AB

Other models have undergone similar rigorous development and testing before a panel of optometrists approves it for use in an exam. The "BIOBot" allows examiners to test a candidate's BIO skill. A model human eye is placed in a housing controlled by servo motors and a joystick to allow the eye to move in all directions of gaze. Several pathologies can be simulated within the eye allowing higher-level diagnostic and management level test questions. "This would not be possible to do with a live patient" Lonsdale notes.

Regarding the volunteer experience, Lonsdale says, "It's been both exciting and a challenge to do my part in developing these models. We are now better able to test candidates at a high level. I'm certainly better at retinoscopy, BIO, gonio, and tonometry than I was a couple of years ago."

FOUR NEW MODELS

Model 1: Retinoscopy - Custom spectacle lenses in a trial frame placed in a 3d printed housing to simulate the human eye with a given refractive error. The candidate uses a retinoscope to determine the refractive error of the model.

Model 2: Binocular indirect ophthalmoscopy (BIO) - A model human eye with 3d printed retina simulating various pathologies placed in a housing controlled by servo motors and a joystick to enable the eye to look in all directions of gaze. The candidate uses a BIO to image the model eye and answer questions related to the model.

Model 3a: Gonioscopy - A model human eye with 3d printed and stamped components placed in a realistic human head model. The candidate uses a slit lamp biomicroscope and gonioscopy lens to image the inside of the eye and answer questions related to the model.

Model 3b: Tonometry - A model eye is mounted on a slit lamp. The candidate uses a Goldmann tonometer to assess the intraocular pressure of the model eye and answers related questions.

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2018-19 Exam Administration Results

2018-19 OEBC Exam Delivery

In 2018-19, OEBC completed a total of 6 separate administrations in two locations and the two official languages as follows:

- October 2018 written exam in Montreal (French)
- October 2018 written exam in Hamilton (English, bilingual)
- October 2018 OSCE in Hamilton (English, French)
- May 2019 written exam in Montreal (French)
- May 2019 written exam in Hamilton (English, bilingual)
- May 2019 OSCE in Hamilton (English, French)

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2018-19 Exam Performance Highlights

Candidates challenging the OEBC

In total, 230 candidates participated in the 2018-2019 administration cycle. OEBC saw 198 first-attempt candidates for the OEBC written examination and OSCE.

Pass rates

The OEBC 2018-19 Administration Scorecards provide pass rates by candidate subgroup and by attempt. The first Scorecard reports the In-Cycle Pass rate, 85.9%, as well as the Total Pass Rate, 85.2%. The second Scorecard reports the Multi-Cycle Pass Rate, which was 81.3%. The Total Pass Number, i.e. total number of candidates who have met the examination requirement for registration/licensure in 2018-19, was 196.

First attempt pass rates

The first attempt pass rate was comparable at 85.9% versus 88.7% for last year. Pass rates for first attempt candidates remained similar for the Canadian subgroup at 92.7% as compared to 93.5 last year and increased modestly for the U.S. subgroup by 1 percent to 78.9%. First attempt pass rates for internationally-educated candidates increased markedly from 70.4% last year to 93.8% this year for which there are two contributing factors.

Pass rates for first attempt candidates remained virtually identical for the Canadian subgroup at 92.7%.

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Contributing Factor – Sample size

In 2018-19, the international candidate pool was relatively small and reduced 33% from the previous examination year. Small sample sizes are susceptible to fluctuations that can vary considerably from one administration to another. Note that the credentialing process for international candidates is external to OEBC; refer to the chart First Attempt International Candidates ahead for a summary of international candidate numbers.

Contributing Factor – Institution

A second factor relates to the institution the international candidate attended for their initial professional education. Previous exam results have generally indicated that international candidates who came from English language institutions performed considerably stronger than international candidates coming from non-English language schools. Nearly all of the **current cohort** attended English language institutions.

OSCE and Written – Group performance across practice areas

The following reflects the final 2 charts.

Reflective of the new competency framework of the OEBC examination, candidate performance is reported for both the Written examination and OSCE across the relevant practice areas. For the OSCE, 6 of the 9 practice areas were assessed. For the Written exam, all 9 practice areas were assessed. Please note that each of the practice areas are weighted and therefore contain varying numbers of items. The percentages indicated reflect the proportion of total available items achieved by the various groups.

First-Attempt International Candidates		
	CACO exam	OEBC exam
2014-15	53	
2015-16	37	
2016-17	29	13
2017-18		27
2018-19		16
Total	119	56

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OEBC Scorecard — 2018-19 Administration Cycle

	Canadian			US			International			In-Cycle Pass Rate	Total Pass Rate
	First Attempt	Second Attempt	Total CDN	First Attempt	Second Attempt	Total US	First Attempt	Second Attempt	Total INT		
Candidate Totals	89/96	NA	89/96	60/76	4/8	64/84	15/16	2/2	17/18	170/198	196/230
Pass Rate	92.7%	NA	92.7%	78.9%	50.0%	76.2%	93.8%	100%	94.4%	85.9%	85.2%

The reporting period is October 1 to September 30

A pass is conferred on a *candidate* when he/she meets or exceeds the minimum performance level for each exam component.

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OEBC Scorecard — 2018-19 Multi-Cycle Candidates

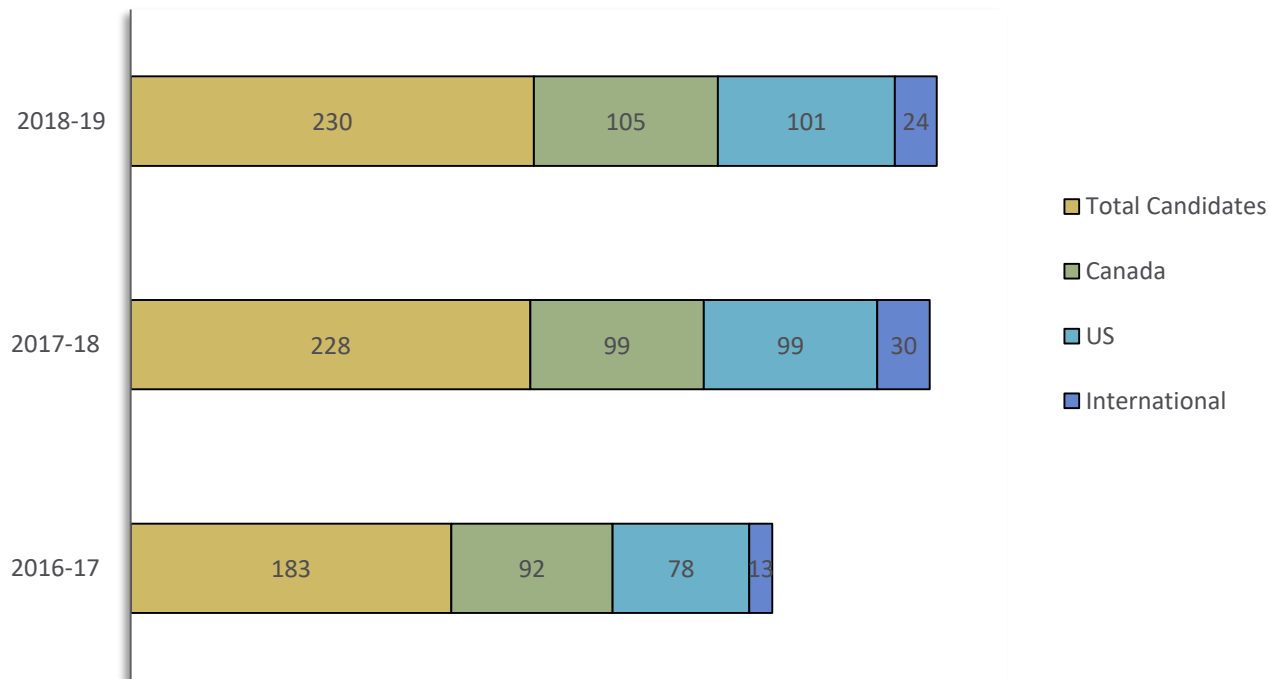|	Canadian					US					International					Multi-Cycle Pass Rate
	First Attempt	Second Attempt	Third Attempt	Fourth Attempt	Total CDN	First Attempt	Second Attempt	Third Attempt	Fourth Attempt	Total US	First Attempt	Second Attempt	Third Attempt	Fourth Attempt	Total INT	
Candidate Totals	4/4	3/3	1/2	NA	8/9	4/4	9/10	1/3	NA	14/17	NA	1/1	2/4	1/1	4/6	26/32
Pass Rate	100%	100%	50%	NA	88.9%	100%	90%	33.3%	NA	82.4%	NA	100%	50%	100%	66.7%	81.3%

A pass is conferred on a *candidate* when he/she meets or exceeds the minimum performance level for each exam component.

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Five Year Candidate Numbers*

Year	Total Candidates	Canada	US	International
2018-19	230	105	101	24
2017-18	228	99	99	30
2016-17	183	92	78	13

Legend:
- Total Candidates
- Canada
- US
- International

Note that the Five-Year Numbers Trend contains data for three years only as there are three annual sets of data available. Subsequent data will be included as it becomes available until a five-year trend can be reported.

"It's good to see what standards are expected compared to when you were new to the profession"
— *M. Sy, OD*

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Total Pass Rate

Pass Rate n=196 — **85.2%**

Fail Rate n=34 — **14.8%**

0.0%   20.0%   40.0%   60.0%   80.0%   100.0%

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In-Cycle Pass Rate

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Five Year In-Cycle Pass Rate*

The data in the table presents pass rates collapsed across the three subgroups (Canadian-educated, US-educated and Internationally-educated) which make up the overall candidate pool. Given the diversity within and across the candidates, performance level for each of the three main subgroups is also reported.

*Note that the Five-Year Numbers Trend contains data for three years only as there are three annual sets of data available. Subsequent data will be included as it becomes available until a five-year trend can be reported.
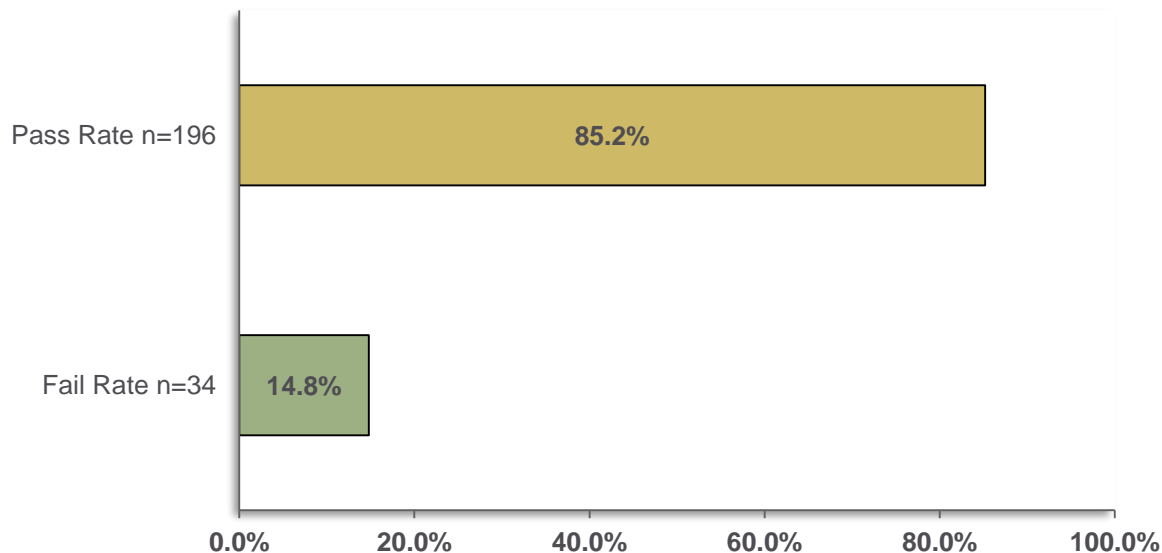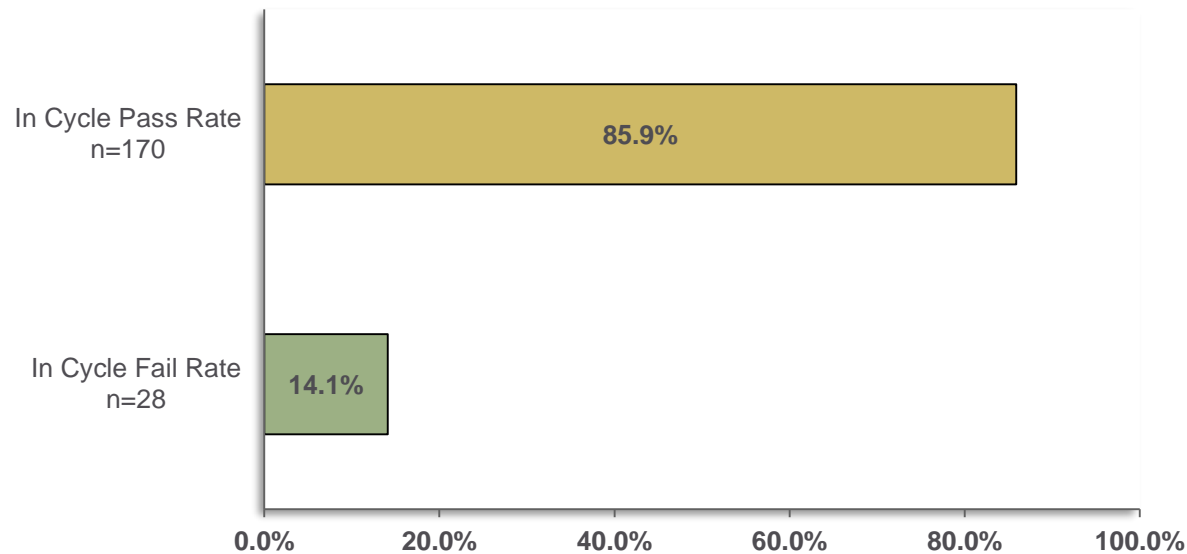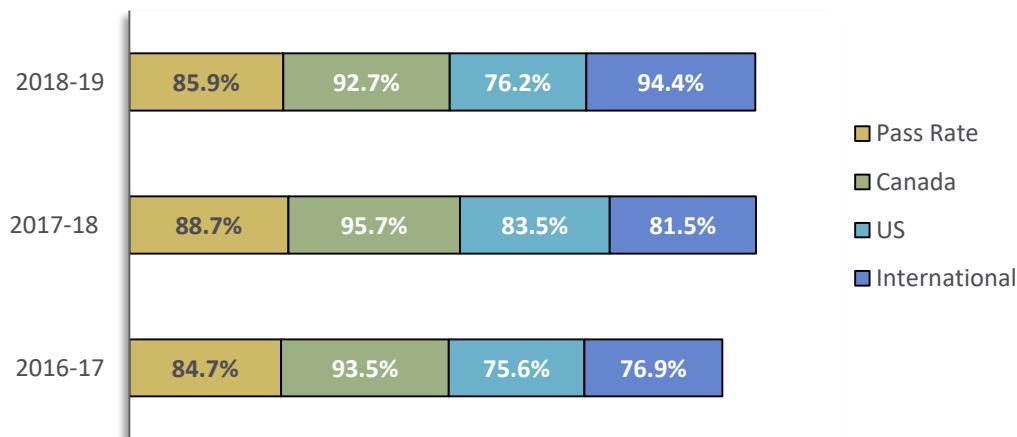
"The exam gives candidates confidence to practice but also makes sure we are all on a level professional field. Keeps our profession at the top of its game."

— *K. Daigle, OD*

Five Year Total Pass Rate*

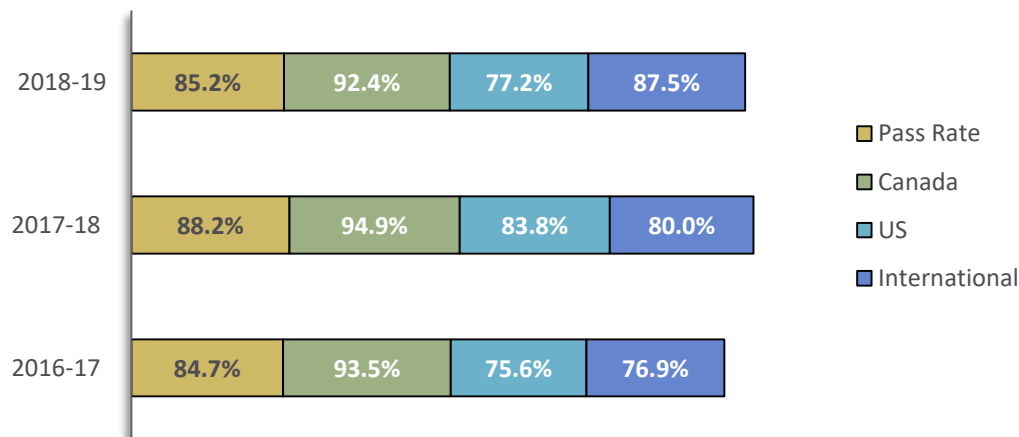|	Pass Rate	Canada	US	International
2018-19	85.2%	92.4%	77.2%	87.5%
2017-18	88.2%	94.9%	83.8%	80.0%
2016-17	84.7%	93.5%	75.6%	76.9%

The data in the table presents pass rates collapsed across the three subgroups (Canadian-educated, US-educated and Internationally-educated) which make up the overall candidate pool. Given the diversity within and across the candidates, performance level for each of the three main subgroups is also reported.

*Note that the Five-Year Numbers Trend contains data for three years only as there are three annual sets of data available. Subsequent data will be included as it becomes available until a five-year trend can be reported.

"It's the right place where an optometrist can show his/her knowledge and clinical skills that will be applied in the future on a safe practice."

— E. Oliva, OD
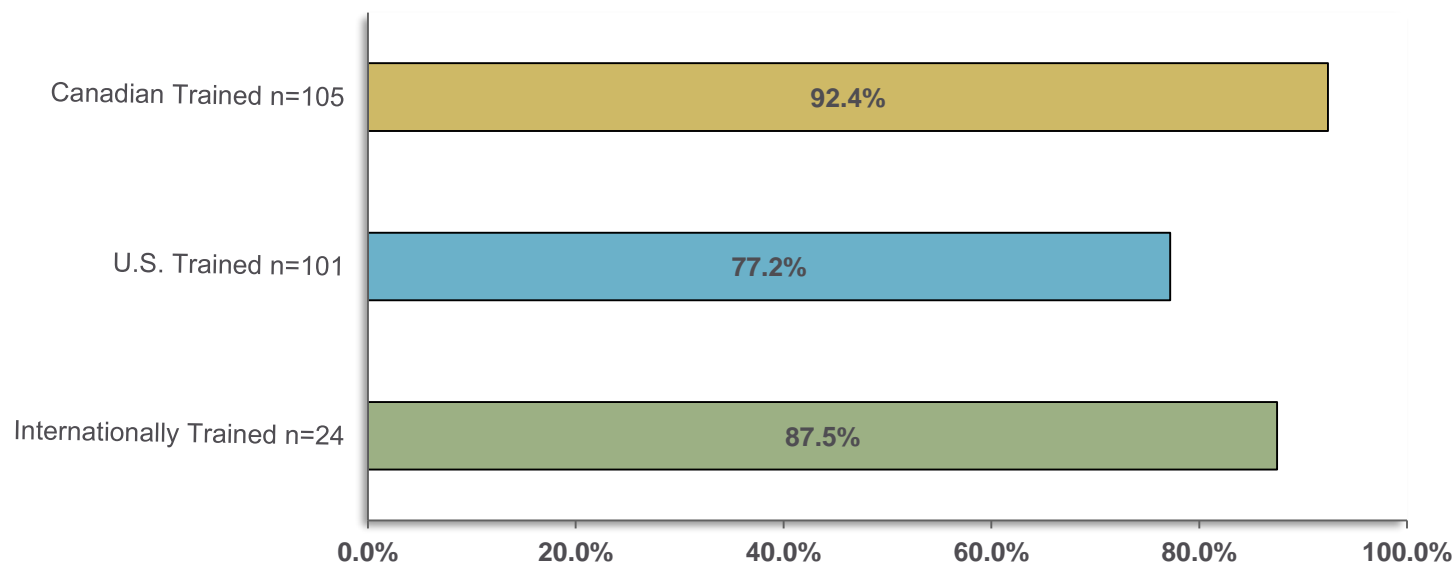
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Total Pass Rate by Subgroup

Canadian Trained n=105 — **92.4%**

U.S. Trained n=101 — **77.2%**

Internationally Trained n=24 — **87.5%**

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In-Cycle Pass Rate by Subgroup

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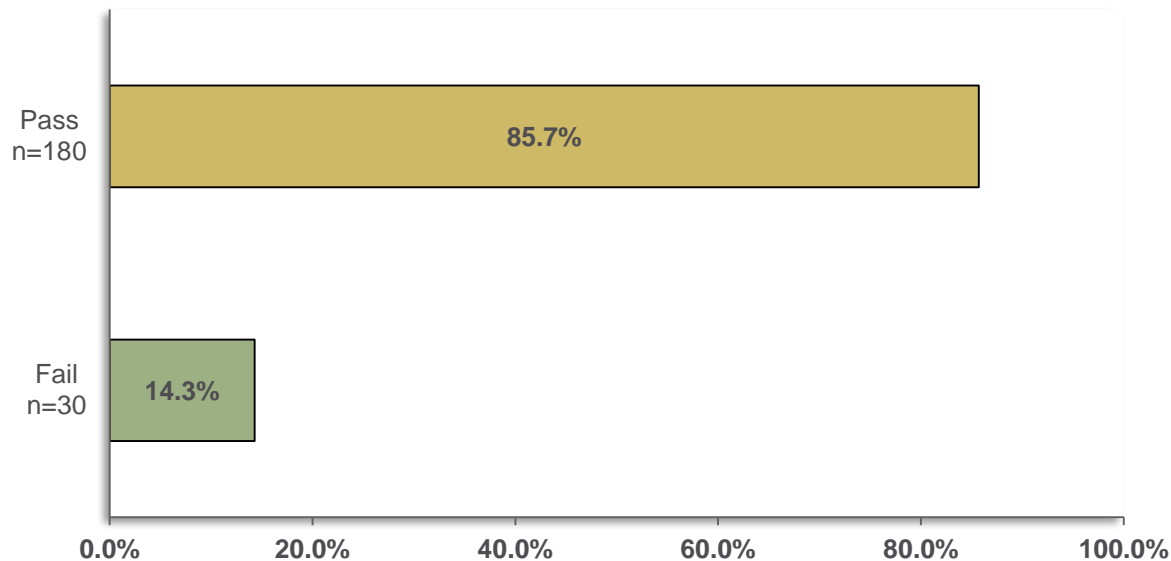
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OSCE Pass – First-Attempt Candidate

> "Great group of people to work with. With every case and workshop you learn a little more to take back to your day-to-day practice."
>
> — *K. Mowbray, OD*

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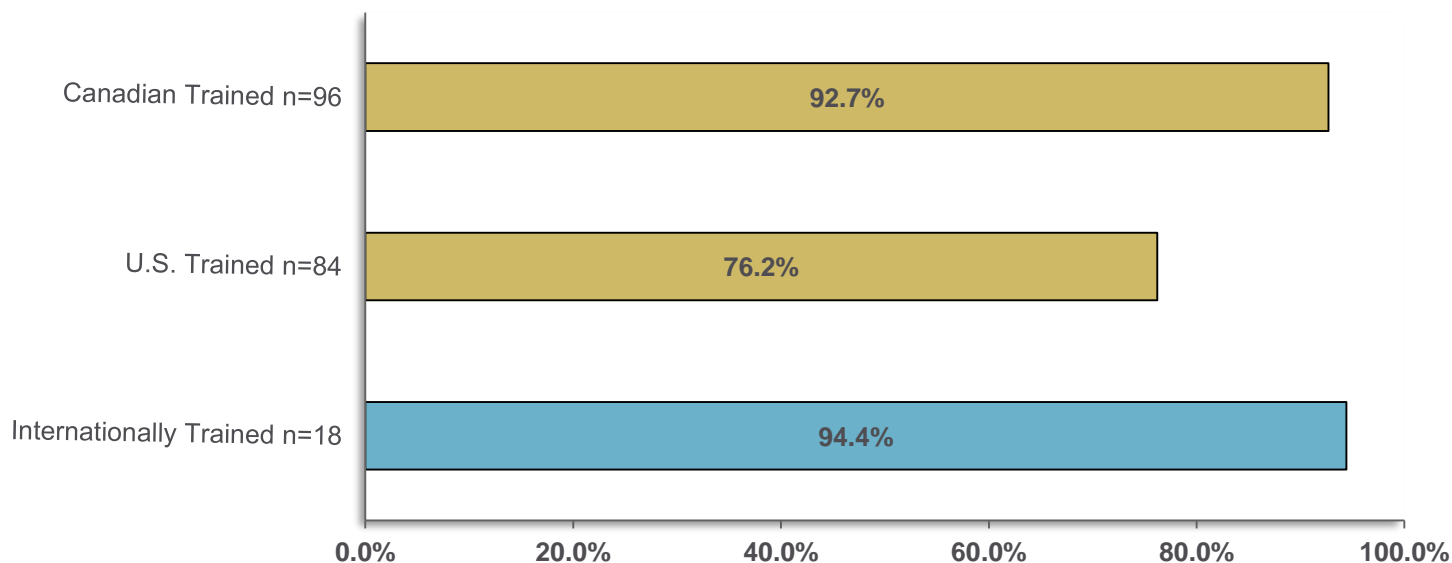**2018-19 ADMINISTRATION RESULTS**

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OSCE Pass – First-Attempt Candidate by Subgroup
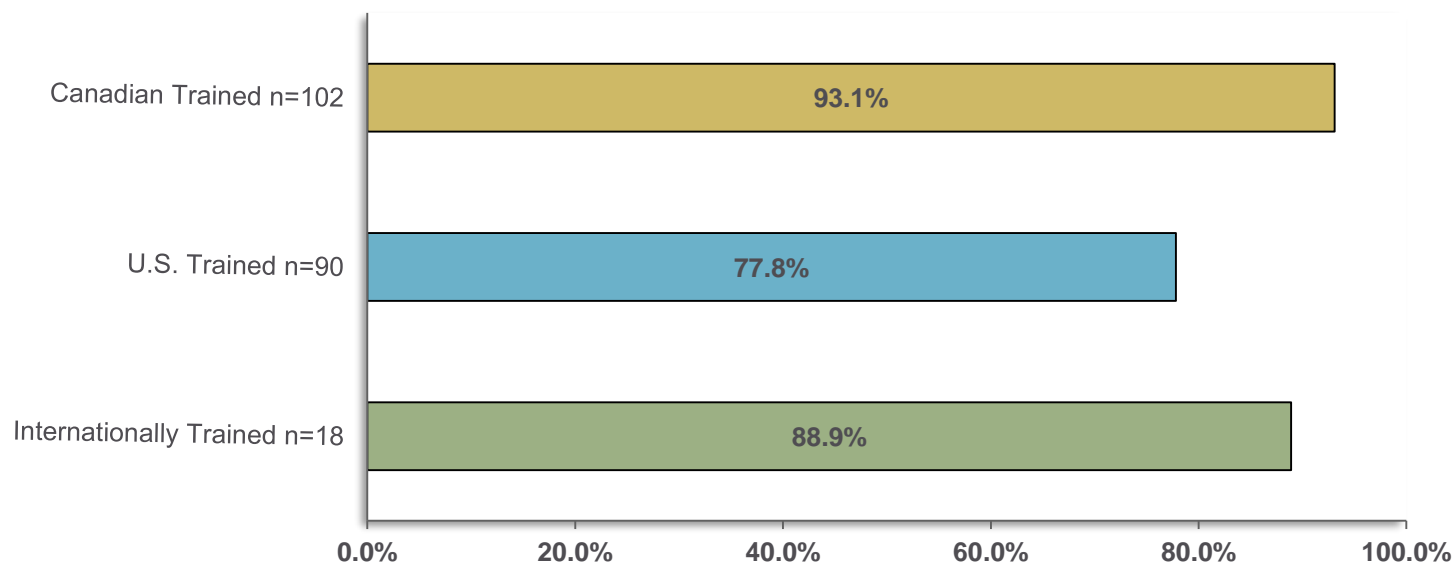
Written Exam Pass – First-Attempt Candidate
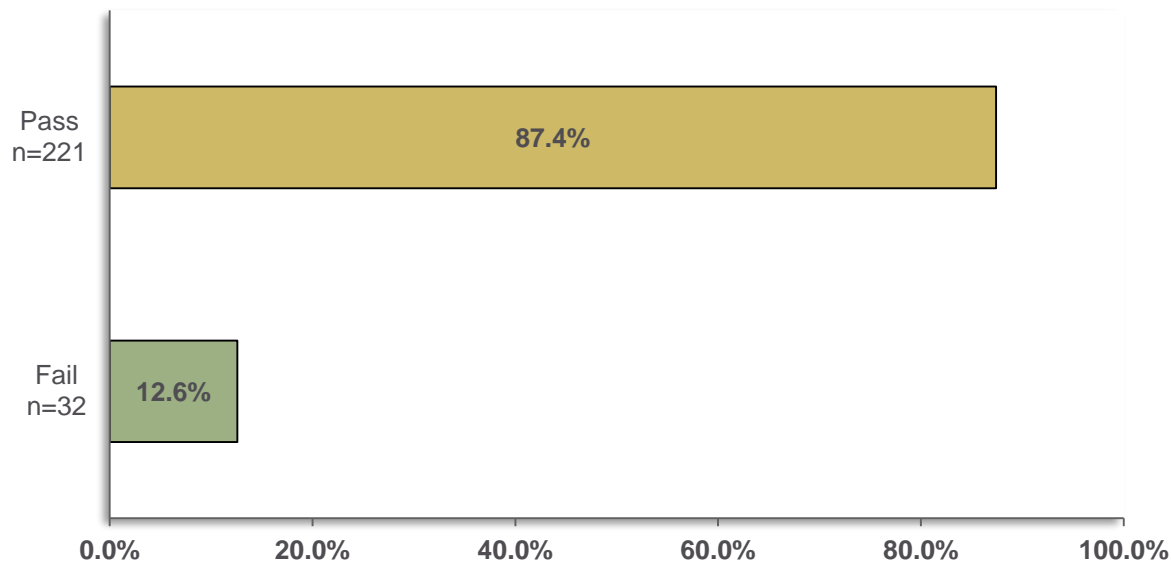
This chart reflects individuals who completed the written exam and includes students of L'École d'optométrie de l'Université de Montréal (EOUM).

"OEBC offers a Canadian developed, standardized, high quality point of entry for practitioners applying to practice optometry in Canada."

— *R. Teeple, OD*

Written Exam Pass – First-Attempt Candidate by Subgroup
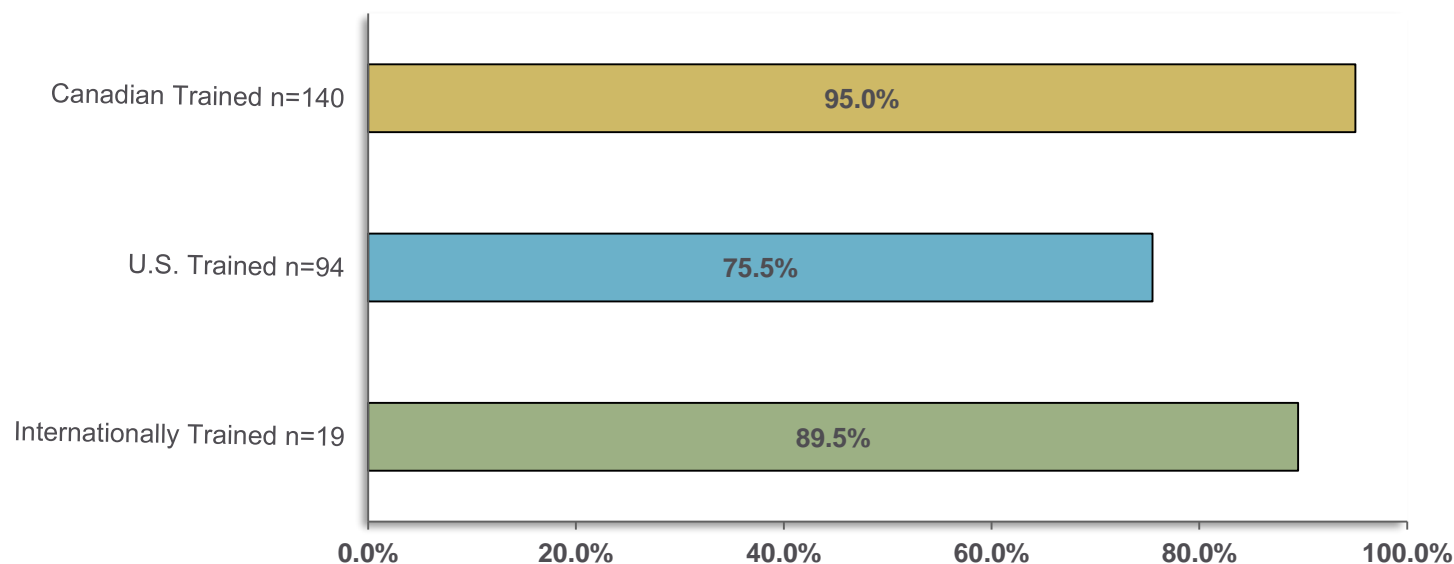
This chart reflects individuals who completed the written exam and includes students of L'École d'optométrie de l'Université de Montréal (EOUM).

OSCE and Written – Group Performance Across Practice Areas

Reflective of the competency framework of the OEBC examination, candidate performance is reported for both the Written examination and OSCE across the relevant practice areas.

For the OSCE the practice areas of Patient Centered Care and Assessment were overall the strongest and most consistent areas of performance across all candidates.

For the Written exam, all 9 practice areas were assessed. As the *Written Group Performance Across Practice Areas* chart indicates, that all 3 groups performed relatively stronger in the areas of Communication, and Professionism and relatively similar performance for Assessment Diagnosis and Planning.

Each of the practice areas is weighted and contains varying numbers of items and the percentages reflect the number of correct as a proportion of total available items, by subgroup.

Charts are based on first-attempt candidates only.

OSCE - First-Attempt Candidate Performance Across Practice Areas, by subgroup

Legend:
- Canadian Trained n=102
- US Trained n=90
- Internationally Trained n=18
- All Candidates n=210

Practice areas (top to bottom): Communication, Professionalism, Patient Centered Care, Assessment, Diagnosis & Planning, Patient Management

X-axis: 55%, 60%, 65%, 70%, 75%, 80%, 85%
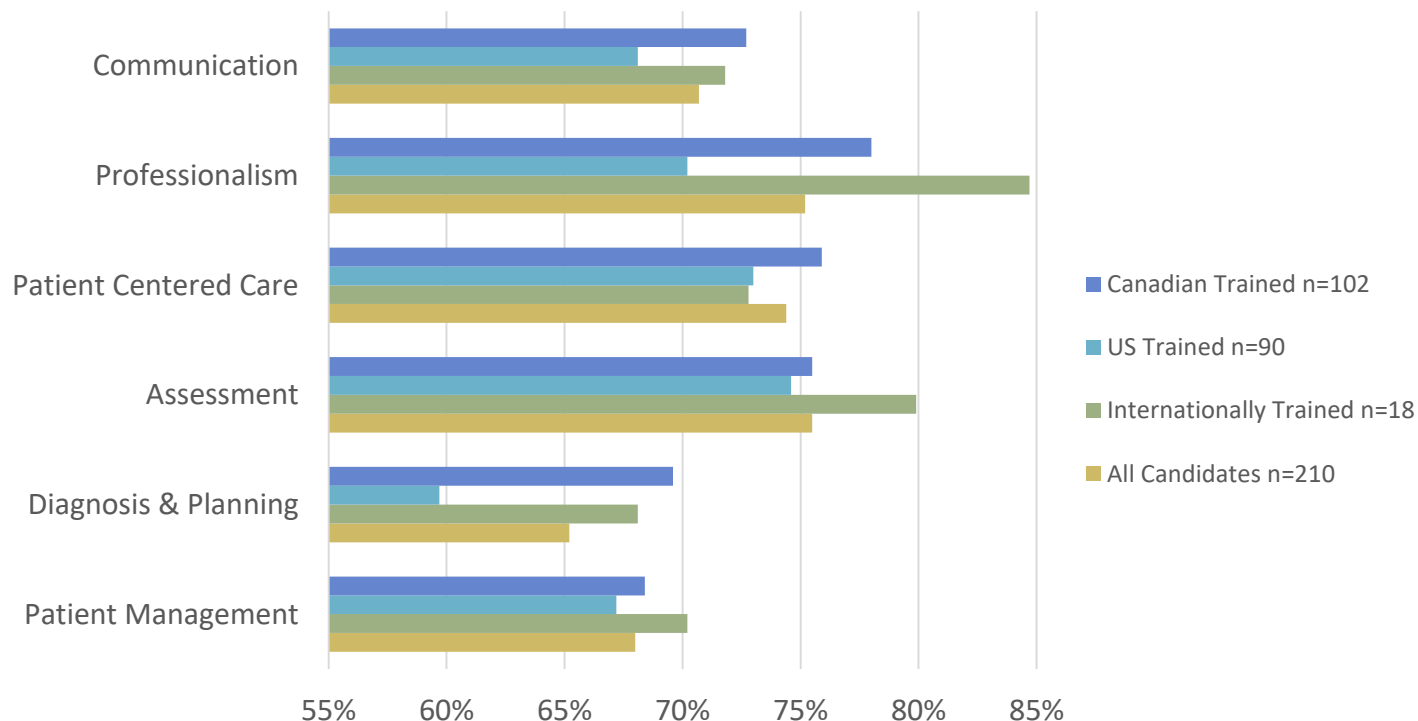
For first-attempt candidates taking the OSCE, the performance was strongest in the practice areas of, Professionalism, Assessment and Patient Centered Care.

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Written Exam - First-Attempt Candidate Performance Across Practice Areas, by subgroup

■ Canadian Trained n=140   ■ US Trained n=94

■ Internationally Trained n=19   ■ All Candidates n=253
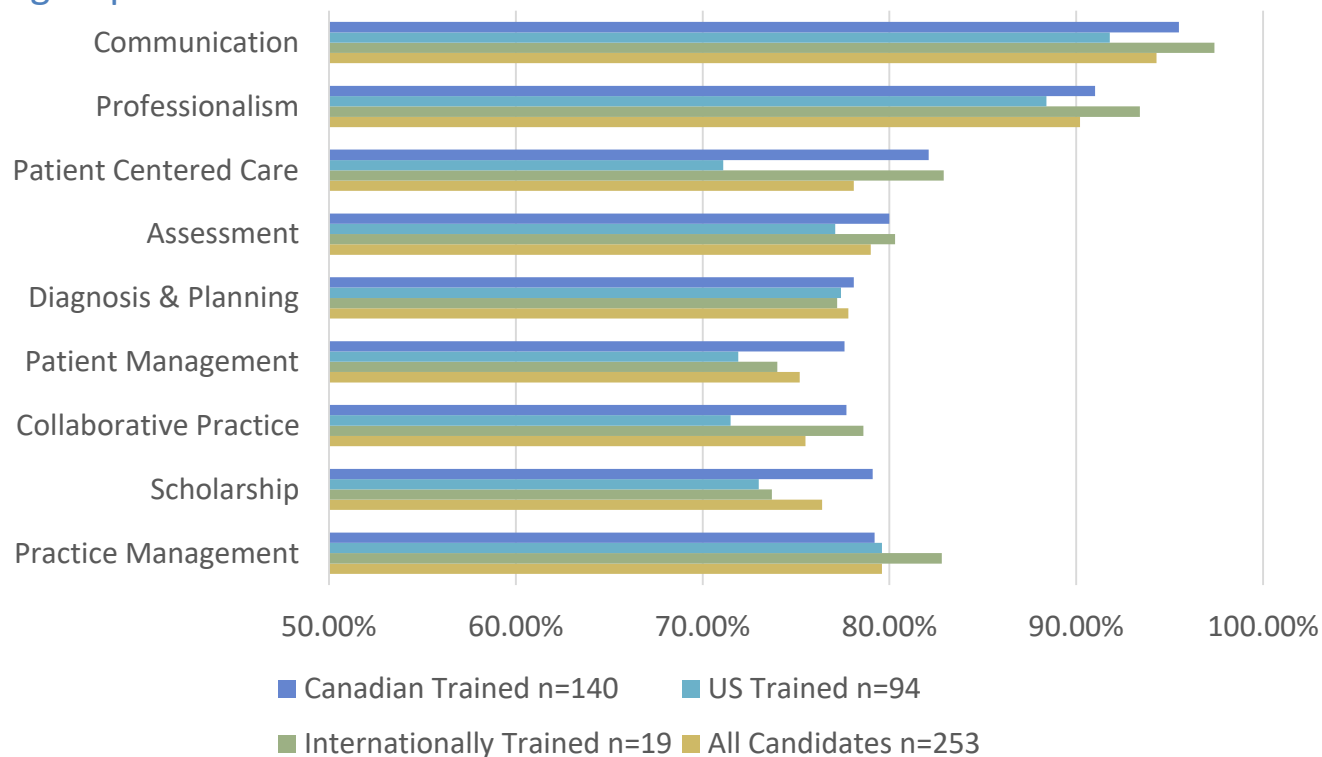
The Entry-to-Practice Exam

The OEBC Written Exam and OSCE (Objective Structured Clinical Exam) tests whether candidates can demonstrate the entry-level competencies the profession has determined are required to enter the practice of optometry in Canada.

National Competency Profile for Entry-level Optometry

Blueprint

Written Exam and OSCE
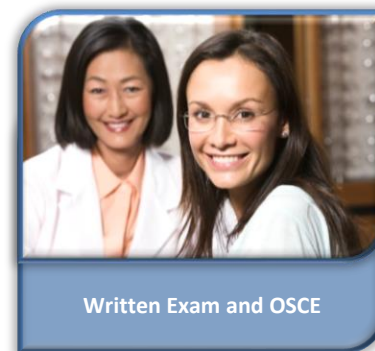
Sets the 92 competencies, grouped into nine areas of practice, optometrists require for safe, effective and ethical practise when entering the profession. The competency profile was:

- Developed by a group of optometrists in 2014
- Validated through a national survey of optometrists in 2015
- Approved by OEBC's board of directors in 2015

Ensures all candidates have equal opportunity to demonstrate they have the competencies necessary to practise optometry safely and effectively. The blueprint:

- Outlines the exam structure
- Identifies 87 competencies the Written exam or OSCE stations may test
- Includes the weighting for each area of practice

Tests if a candidate can demonstrate the competencies the profession has determined are required to enter the practice of optometry.

- Written Exam – one-day, paper exam comprised of 62 cases
- OSCE – 3.5-hour practical exam comprised of 16 stations that emphasize clinical reasoning and professional judgement.
- Employs Standardized Patients

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Understanding the OEBC Exam

The OEBC exam (Written exam and OSCE) is a competency-based exam testing integrated skills and knowledge grounded in optometric competencies. Optometrists across Canada participated in a survey in 2015 to establish the competencies. The National Competency Profile for Entry-Level Optometry (2015) is the result of this survey, and outlines the competencies required for the practice of optometry.

Exam	Assesses	Competency assessed through…	To pass candidate must…
Written	• Communication • Professionalism • Patient Centered Care • Assessment • Diagnosis & Planning • Patient Management • Collaborative Practice • Scholarship • Practice Management	A multiple-choice written exam based on 62 comprehensive cases with four test items per case.	Meet or exceed the minimum level of performance as determined by members of the profession using the *Angoff cut-score setting method*.
OSCE	• Communication • Professionalism • Patient Centered Care • Assessment • Diagnosis & Planning • Patient Management • Collaborative Practice • Scholarship • Practice Management	An Objective Structure Clinical Exam (OSCE) with 16 stations; 11 stations are interactive stations with standardized patients; the remaining 5 stations are non-interactive.	

The OSCE and Written examination are based on the exam blueprint available at www.oebc.ca. The Written and OSCE blueprints list the practice areas and their weightings; each practice area has a list of "competencies." A competency is the ability to perform a practice task with a specified level of proficiency.

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Exam Reliability by Component – May 2019

	Administration November 2018	Administration May 2019
Component	K² (Livingston's Coefficient Kappa)	
Written	.98	**.93**
OSCE Administration 1	.76*	**.92**
OSCE Administration 2	N/A	**.91**

While the November 2018 reliability coefficient exceeds the required criterion of .70 its relatively lower magnitude compared to the May 2019 OSCE coefficients is related to the smaller first attempt candidate pool for November 2018.

Find out more about interpreting the numbers here.

The Livingston coefficients in this table meet and exceed the generally expected level of .70 for the OSCE component and .80 for the Written component, which demonstrates the reliability of our test measures.

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Item Analysis and Scoring Changes– 2018-19

Exam Administration	Items Deleted from Scoring	Reason for Change
Written	November 2018 Administration: 3 items May 2019 Administration: 5 items	Items are deleted by panels of optometrists if they fail to meet psychometric criteria. This may include items that have performance levels within acceptable difficulty levels or items failing to discriminate positively.
OSCE Administration November 2017	One of 16 stations and One Non-Interactive Item	
OSCE Administration May 2018	Day 1 – One Interactive Checklist Item within one station	

Following each exam administration, OEBC analyses items to ensure they perform in the anticipated manner.

Learn more about the process *here.*

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Exam Development Process
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Exam Development Process: Choosing and Using Test Items

Test Item Bank

New Questions

New questions developed (see Creating Test Items by the profession for the profession)

Items included are based on the decisions of practising optometrists.

Item Selection for Exam

Valid Questions

New Questions

New questions are developed by optometrists from across Canada who are trained in question writing. Questions are translated by a bilingual optometrist then independently reviewed to ensure accuracy.

Exam Assembly

Exam Administration & Results Analysis

Scoring - Panel Review

Valid Questions

Ambiguous Questions

For each administration, 2 panels separate from each other and exam development review OSCE stations and written items that have been statistically identified. The panels decide whether these stations / items are kept or deleted in the exam scoring.

Question Triage

The exam development process: Ambiguous questions are reviewed and either archived (not used going forward) or refined and ultimately returned to the Test Item Bank. This is known as item triage.

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Exam Development Process: Creating Test Items

The OEBC exam is based on an exam blueprint that is derived from the National Competency Profile. We create new items for the written exam and OSCE. To create these items, our writers draw from the OEBC exam blueprint.

Exam Blueprint

Exam Question Areas

The OEBC exam blueprint provides the foundation of the OEBC Written exam and OSCE.
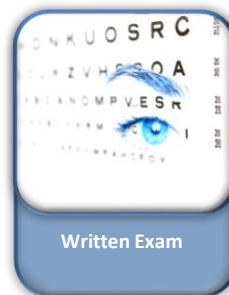
OEBC Written exam
- 62 cases, 4 multiple choice questions per case

OSCE
- 16 stations

Written Exam

OSCE

Exam Development Process: Creating Test Items
by the Profession for the Profession

The exam process follows best-practice in exam development methodology and exam content is grounded in professional practice. All optometrists undergo training to fulfill the exam development stages. Optometrists who write questions are different from optometrists who set the cut score (MPL).

Panel
Review

OEBC Test
Item Bank

Writing

Question areas and targets are assigned to each member of the National Writing Group.

Each test item undergoes panel review to ensure alignment with the competency area, relevance to practice, and accuracy and currency of item information.

Score Setting

All test items are reviewed by a third panel of 8-12 optometrists to set the *MPL* (also known as pass or cut score) using the Angoff method.

Translation

Test items on the OSCE and Written exam are translated by two bilingual optometrists.

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By the Profession For the Profession

Qualifications and Requirements

Members of the profession volunteer or respond to recruitment invitations to help develop and deliver our exams. These optometrists:

- have been in practice three or more years;
- are registered in good standing with a provincial optometry regulatory body in Canada; and
- meet OEBC's conflict of interest guidelines.

Conflict of interest guidelines exclude optometrists who participate in other optometry exams, exam preparatory courses or optometry degree/bridging programs. Optometrists related to an individual enrolled in a program are prohibited from participating in OEBC exam development. Our volunteer application form along with conflict of interest and confidentiality agreements ask optometrists to disclose their other connections. We use this information to identify the best path for professional involvement that works for them and OEBC.

Trained for Success

All optometrists undergo training to develop technical and judgement skills in a specific area of assessment that supplement their professional expertise. This process helps ensure valid exam content and assessments.

Continuing Education

Optometrists who volunteer their time and expertise earn hours that can count towards the continuing education requirements of their respective regulatory bodies. OEBC provides a letter confirming an optometrist's participation and the actual and credit hours earned in each event. See *Volunteer with OEBC*.

"I enjoy contributing to the profession and I think this is one of the best ways you can do so."
— *S. Farrag, OD*

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General Definitions

OSCE: stands for Objective Structured Clinical Examination. It is a form of practical examination that provides candidates with a consistent exam experience, and provides assessors with objective behavioural criteria for scoring candidate performances. OSCEs are used by many Canadian licensing bodies (regulators) as one criterion for entry to practice. Examples include medicine, pharmacy, physiotherapy, dental hygiene and nurse practitioners.

Practice Areas: broad groupings of competencies related to a "bucket" of job activities.

Standardized patient: is a person who has been trained to present the signs and symptoms of a condition, and respond to candidate questions, statements and actions consistently.

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General Definitions

Angoff cut-score setting method: is an industry standard in determining the passing score for any licensure (registration) exam. To set the pass score, 8 to 12 subject matter experts predict how many minimally competent candidates will respond correctly to a test item. The estimates for each item from all the subject matter experts are averaged, then tallied to yield the cut score or pass score for the examination.

Competencies: significant job-related knowledge, skills, abilities, attitudes and judgments required for competent performance (i.e., safe and effective practice). They provide an overview of what an Optometrist must be able to do at entry to practice, without supervision, when the need arises. Each Written Examination question and OSCE station is linked to specific competency(ies).

Indicators: examples of behaviours that are observable in, and guide the development of, the written examination and OSCE. These are representative of the competency and may be updated from time to time.

Note that each written case and each OSCE station has a primary competency and is assigned to the blueprint accordingly, however elements from other competencies may appear in these written cases and OSCE stations, reflective of the integrated nature of practice.

National Competency Profile OEBC's National Competency Profile for Entry-Level Optometry May 2015 lists the competencies that the profession has said are required of optometrists for safe, effective and ethical practice at entry to the profession in Canada. Its primary purpose is to guide the content of OEBC's exam.

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General Definitions

MPL: stands for Minimum Performance Level and is based solely on performance criteria. Exam candidates attempt to meet or exceed the minimum standard of performance rather than competing against other candidates. The MPL ensures the standard for minimally acceptable competence is consistent despite variation in question content between administrations. The MPL is also known as the cut score.

This method also removes predetermined passing rates for the administration of the exam. If the candidate population has a high level of performance on the assessment, the failure rate will be low. If the performance level of the candidate population on the assessment is low, the failure rate will be higher. The MPL is established in advance of an exam administration by a panel of practising optometrists.

See the definition of *Angoff cut-score setting*. Return to *Creating Test Items by the Profession for the Profession*.

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Candidate Definitions

Candidate: Individuals who have completed both the OEBC written and OSCE (at least once). Candidates from EOUM who took the written exam only are considered in written exam analysis included in performance charts: Written Total First Attempt Pass/Fail, Written Total First Attempt Pass/Fail, Written: First Attempt Group Performance Across Practice Areas.

Eligible candidates:
1. have graduated from an Accreditation Council on Optometric Education or ACOE-accredited optometry program; or
2. have completed an optometry bridging program through the IOBP or the EOUM, if they are internationally-educated; or
3. have been practising as optometrists in Canada or the U.S. For example a Canadian OD educated and practising in the U.S. who wants to move back to Canada; or
4. have successfully completed the evaluating exam and been approved to take the OEBC exam.

OEBC adheres to Exam Eligibility and Registration Policies on its website to verify eligibility for each exam applicant.

Candidate Subgroup:

Canada: Candidates who have graduated from an accredited Canadian school of optometry.

US: Candidates who have graduated from an accredited U.S. school of optometry.

International: Candidates who have completed a Canadian bridging program at the International Optometric Bridging Program (IOBP) or were approved to take the exam by the Quebec Order following bridging education at the L'École d'optométrie de l'Université de Montréal (EOUM) *…More*

Click here to return to the Administrations Scorecard.

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General Definitions

In-Cycle Pass Rate: the total number of candidates who have completed their *first and second attempts* and passed within the current year divided by the total number of candidates who made their first or second attempts within the current year.

Multi-Cycle Pass Rate: the total number of candidates who have completed their *first, second, third, or fourth attempts* and passed in the current year but who have started in a previous year divided by the total number of candidates who made their second, third, or fourth attempt in the current year but who started in a previous year.

Total Pass Rate: the total number of candidates who took the exam this year and who passed. For regulatory bodies, the Total Pass Rate can be interpreted as the number of candidates who have met the examination requirement for registration/licensure.

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Candidate Definitions

First-attempt Candidate: Candidates who attempt the OEBC exam (written and OSCE) for the first time in an assessment cycle — October 1 to September 30. Eligible candidates taking the exam the first time may attempt the written exam before the OSCE.

Second-attempt Candidate: Candidates who attempt a first re-assessment of either or both of the exam part(s) that they were previously unsuccessful on.

Third-attempt Candidate: Candidates who attempt a second re-assessment of either or both of the exam part(s) that they were previously unsuccessful on.

Fourth-attempt Candidate: Candidates who make a fourth and final attempt of the the OEBC exam (written and OSCE).

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Interpreting the Numbers

What the numbers tell us

The Livingston's reliability coefficient, as it is a more appropriate measure for a criterion-referenced test such as the OEBC, measures a candidate's knowledge and skills compared to a defined body of content. A strong reliability indicator of .70 or greater contributes to the validity of OEBC test measures.

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Understanding Item Analysis and Scoring

Following each exam administration, OEBC performs item analysis. This is a process to examine how each item performed on the exam which helps ensure only valid items are kept for scoring. During this process, a panel of optometrists reviews items that do not meet established criteria and determines whether to include them in scoring.

When items may be deleted from scoring

Test items are subject to review and possibly deleted from scoring if:
- less than 20% of the total group successfully answer; or
- the item fails to discriminate positively.

How we make that final decision

A panel of practising optometrists, in consultation with a psychometrician, decides whether to delete the item. Items that are deleted are removed from scoring for all candidates thereby ensuring that reported results are both valid and fair. An item deleted from the scoring for either the Written exam or OSCE is generally made for the entire group of candidates (the whole group level).

Click here to return to Item Analysis and Scoring Changes

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List of Performance Charts

1. OEBC Scorecard— 2018-19 Administration Cycle
2. OEBC Scorecard— 2018-19 Multi-Cycle Candidates
3. Five Year Candidate Numbers Trend
4. Overall Total Pass Rate
5. Overall In-Cycle Pass Rate
6. Candidate Performance– Five Year In-Cycle Pass Rate*
7. Candidate Performance– Five Year Total Pass Rate*
8. Total Pass Rate by Subgroup
9. In-Cycle Pass Rate by Subgroup
10. Total Pass/Fail OSCE – First Attempt Candidates
11. OSCE Pass Rate – First Attempt by Subgroup
12. Written Total First Attempt Pass/Fail
13. Written Pass Rate– First Attempt by Subgroup
14. OSCE: First Attempt Group Performance Across Practice Areas
15. Written: First Attempt Group Performance Across Practice Areas