



AMERICAN OPTOMETRIC ASSOCIATION

COMMISSION ON PARAOPTOMETRIC CERTIFICATION

Year in Review 2021



Commission on Paraoptometric
Certification

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Background

The Commission on Paraoptometric Certification (CPC) was established in 2000 by the American Optometric Association. This program replaced the National Paraoptometric Registry, which was established by the American Optometric Association in 1978. Certification focuses specifically on the individual and is an indication of current proficiency in a specialized field. Certification is highly valued and provides formal acknowledgement of knowledge and skills in a particular area of practice.

The CPC offers four certification examinations for optometric staff. Each program requires successful completion of an examination prepared and administered by the CPC with the assistance of Professional Testing Corporation (PTC). The purpose of the examinations is to assure a level of knowledge to perform the functions necessary to each certified designation. Recipients must participate in continuing education activities and renew their certification every three years to maintain a current certification. Paraoptometric certification provides a formal declaration of education and skill achievement in the profession of optometric assisting by:

- Recognizing formally those individuals who meet all requirements of the Commission on Paraoptometric Certification of the American Optometric Association.
- Encouraging continued professional growth of the paraoptometric.
- Establishing and measuring the level of knowledge required for certification of paraoptometrics.
- Promoting a standard of requisite knowledge required for certification; thereby, assisting the employer, public, and members of the health professions in the assessment of paraoptometrics.

The CPO™, CPOA™, and CPOT™ examinations are accredited by the National Commission for Certifying Agencies (NCCA). The NCCA accreditation serves as a benchmark on how organizations should conduct certification and clearly distinguishes the excellence and value of CPC certification. To receive this accreditation, the CPC completed an application for each certification demonstrating compliance with the NCCA's Standards for the Accreditation of Certification Programs, which were the first standards for professional certification programs developed by the industry. NCCA uses a peer review process to: establish accreditation standards; evaluate compliance with the standards; recognize organizations/programs that demonstrate compliance; and serve as a resource on quality certification. The CPC accreditation of these three programs has been renewed for another five years.

The CPC is a member of the Institute for Credentialing Excellence, or I.C.E., a professional membership association that provides education, networking and other resources for organizations and individuals who work in and serve the credentialing industry. I.C.E. is a leading developer of standards for both certification and certificate programs and it is both a provider of and a clearing house for information on trends in certification, test development and delivery, assessment-based certificate programs and other information relevant to the credentialing industry.

Executive Summary

The Commission on Paraoptometric Certification (CPC) continues to offer the only certification available for paraoptometric and seeks to make this experience valuable and desirable for all interested participants. During 2021, approximately 7,000 paraoptometric held or earned a new paraoptometric certification. The CPC continues to improve the quality and integrity of the program to maintain the positive perception of certification within the optometric community. New forms of the CPO, CPOA and CPOT examinations that were based on the results of the 2019 Job Task Analysis survey were released in February 2021. Basic knowledge areas and skills that survey respondents deemed necessary for each certification level were indicated in the content outline. Subsequently, a portion of the items covering these basic knowledge areas and skills were removed from the examinations to make room for new topics that had been identified through the job task analysis and additional content was included in certain domains.

Mission Statement

The Commission on Paraoptometric Certification serves the public by developing, maintaining, and promoting a certification process which reflects current modes of optometric practice and grants certification to those candidates who satisfy the set requirements throughout the world.

Program Overview

The certified paraoptometric examinations are developed and administered by the CPC with the assistance of Professional Testing Corporation. These proctored computer-based examinations are overseen by Prometric staff. The purpose of the examinations is to ensure a level of knowledge to perform the functions of a certified paraoptometric at each appropriate level. Those who have successfully completed the appropriate examination(s) will be certified with the Commission on Paraoptometric Certification as a Certified Paraoptometric (CPO), Certified Paraoptometric Assistant (CPOA), Certified Paraoptometric Coder (CPOC), or Certified Paraoptometric Technician (CPOT).

The passing score for the examinations is set for each new form developed following a job task analysis; future forms are upheld to the standard by using equating methodology. The new form is reviewed for relevance, appropriateness, and accuracy by the examination work groups responsible for examination development. During the process, this committee meets with a testing vendor who serves to guide committee deliberations and ensures psychometric soundness of the decisions reached.

The primary consideration in the examination review process is to ensure representation of the basic body of knowledge required for practice. A second consideration is to maintain the equivalent difficulty level of successive examinations. Based on Standard 4.21 of the AERA, APA, and NCME Standards for Educational and Psychological Testing, the passing scores are established so that the test review committee can bring their knowledge and experience to bear in a reasonable way.

Executive Summary

Objectives

The purpose of this Year-in-Review report is two-fold. First, it assures that the examinations are compliant with NCCA standards and assists the Commission on Paraoptometric Certification in identifying trends, targeting audiences, and ensuring that the examinations are reliable. Second, these metrics are valuable to stakeholders as they identify potential training opportunities that are lacking; personal development needs that are not being met; and identify target demographic audiences for marketing purposes. The information in this report is derived from compiled candidate responses on the examination applications and the stringent review of score reports. All documentation regarding these reports is kept on file for five (5) years. Only through extensive task analysis studies can the CPC determine the body of knowledge. Task analyses assess how a task is accomplished, including a detailed description of both manual and mental activities, task and element durations, frequency, allocation, complexity, necessary equipment and precautions, and any other unique factors involved in or required for one or more people to perform a given task. The CPC conducts these analyses every three to five years, the latest having been performed in 2019. In between these studies, test reviews and item performance reviews are conducted annually. Test specifications are updated frequently according to the environmental scan of the optometric practice.

Meet the Commission on Paraoptometric Certification (CPC)

Chair – Stacey Thibodeau, CPOT, CPOC (WI)

Vice-Chair – Janet Millis, CPOT, ABOC (IL)

Immediate Past Chair – Kris VanSickle, CPOT (IA)

Member – Catherine Firman, CPOT (FL)

Member - Beverly Roberts, CPOT, ABOC (MS)

Member – Katherine Ramsey, CPOT, OSC (MS)

Member – Tyler Rascher, CPOA (IA)*

Member – Sasha Radford, OD (IL)

Member-at Large – Ran He, OD (VT)

Public Member – Al Suguitan, CAE (IL)

AOA Board Liaison Trustee – Belinda Starkey, OD (AR)

AOA Staff Liaison – Sharon Alderson, Manager of Paraoptometric Certification Programs

*Resigned as of December 1, 2021

Executive Summary

Highlights

The Commission on Paraoptometric Certification is pleased to report that another year of providing certification examinations to paraoptometric has been completed. The effects of the global pandemic continued to have a slightly negative impact on the availability of testing and the number of candidates tested in 2021, due to COVID-19 restrictions and illnesses in some areas. The total number of candidates was lower than pre-COVID years. However, the CPC did recognize an increase of 554 additional candidates over the total number tested in 2020.

The examinations are developed in cooperation with Professional Testing Corporation (PTC), which provides professional organizations of all sizes with quality psychometric services. The CPO, CPOA, and CPOT programs are accredited by the National Commission for Certifying Agencies (NCCA). The NCCA helps to ensure the health, welfare, and safety of the public through the accreditation of a variety of certification programs/organizations that assess professional competency.

- **In 2021, a total of 1,658 candidates sat for a CPO, CPOA, CPOT, or CPOC examination.**
 - **At the end of December 2021, approximately 5,713 paraoptometric maintained a current certification.** (After 1,235 paraoptometric who did not renew their certification by December 31, 2021, were removed from the total count.)
 - **4,816 Certified Paraoptometric (CPO)**
 - **1,389 Certified Paraoptometric Assistants (CPOA)**
 - **521 Certified Paraoptometric Technicians (CPOT)**
 - **221 Certified Paraoptometric Coders (CPOC)**
 - **Of the total certified, 158 held dual certifications (CPOC with a CPO, CPOA or CPOT)**

Year in Review

The CPO, CPOA and CPOC examinations administered in 2021 were computer-based and were offered during four, two-week testing periods in February, May, August, and November at Prometric testing locations. The CPOT written and clinical examinations were offered during the May and November testing cycles only. Instant pass/fail scoring was eliminated as the score method was changed from providing raw scores expressed as a percentage of correct answers to the equating scoring method to satisfy NCCA accreditation standards. Since every examination form is made up of a different mix of items, the difficulty level may vary slightly from form to form. Equating takes into consideration these small and unintended differences in difficulty among different examination forms by appropriately adjusting the passing point to ensure that a comparable level of knowledge on each form is required to pass the examination. Hand-scoring is performed when candidates score within 2-3 points of passing.

Overall Pass/Fail

Just over half of the 1,658 candidates who took an examination in 2021 (54.1%) passed, while over 90% of candidates who retook the CPO or CPOA examination and 85% of those repeating a CPOT examination in 2021 passed. While approximately 6% of exams were hand-scored in 2020, 9% of exams were hand-scored in 2021.

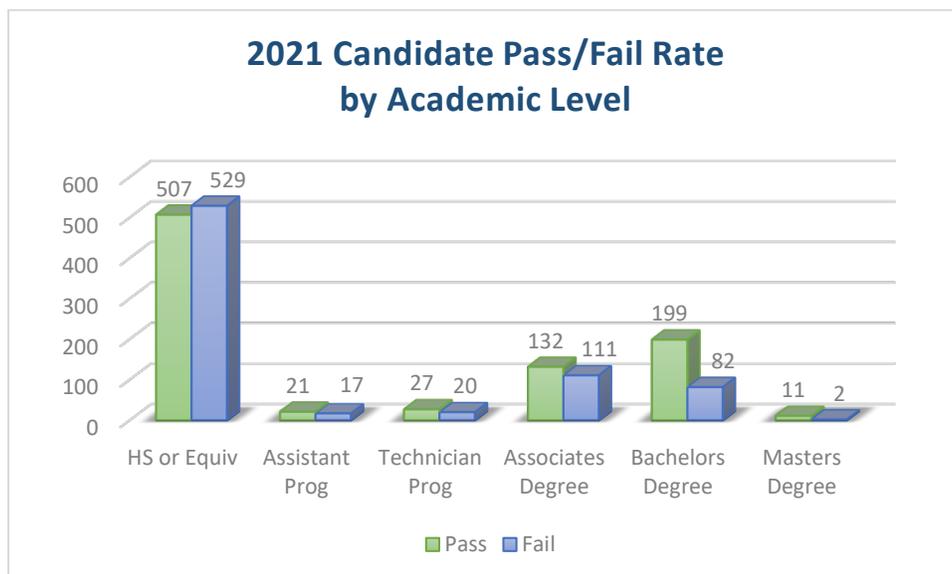
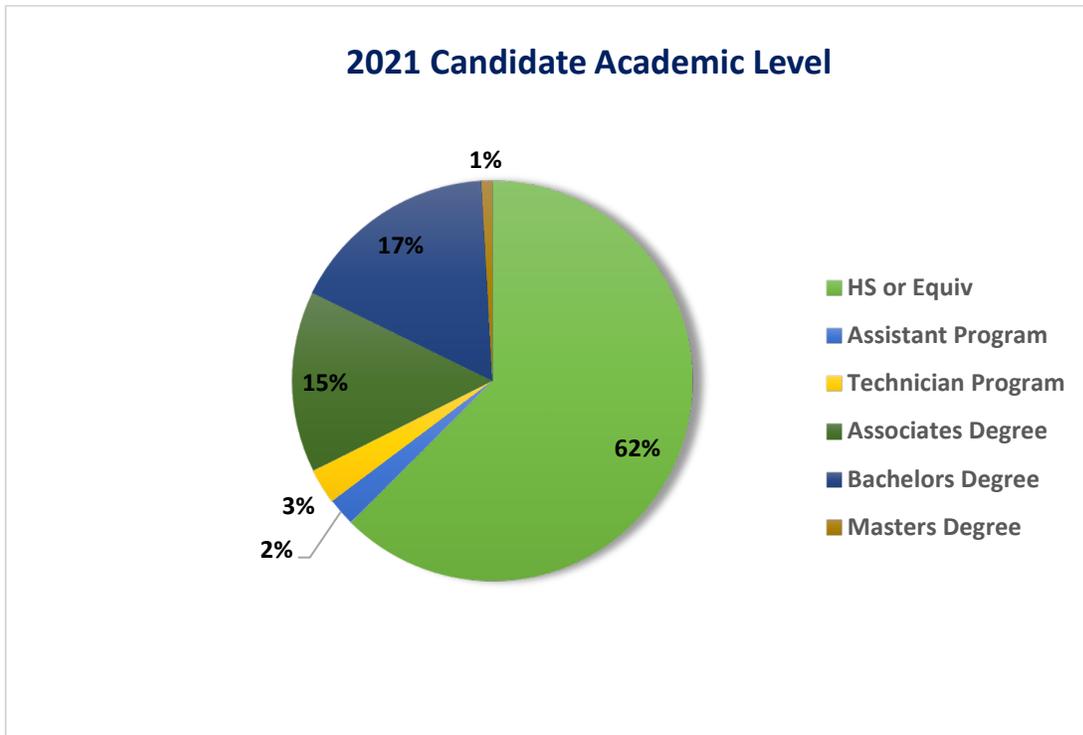


Overall passing rate dropped from 78% in 2020 to 54% in 2021.

Year in Review

Education Level

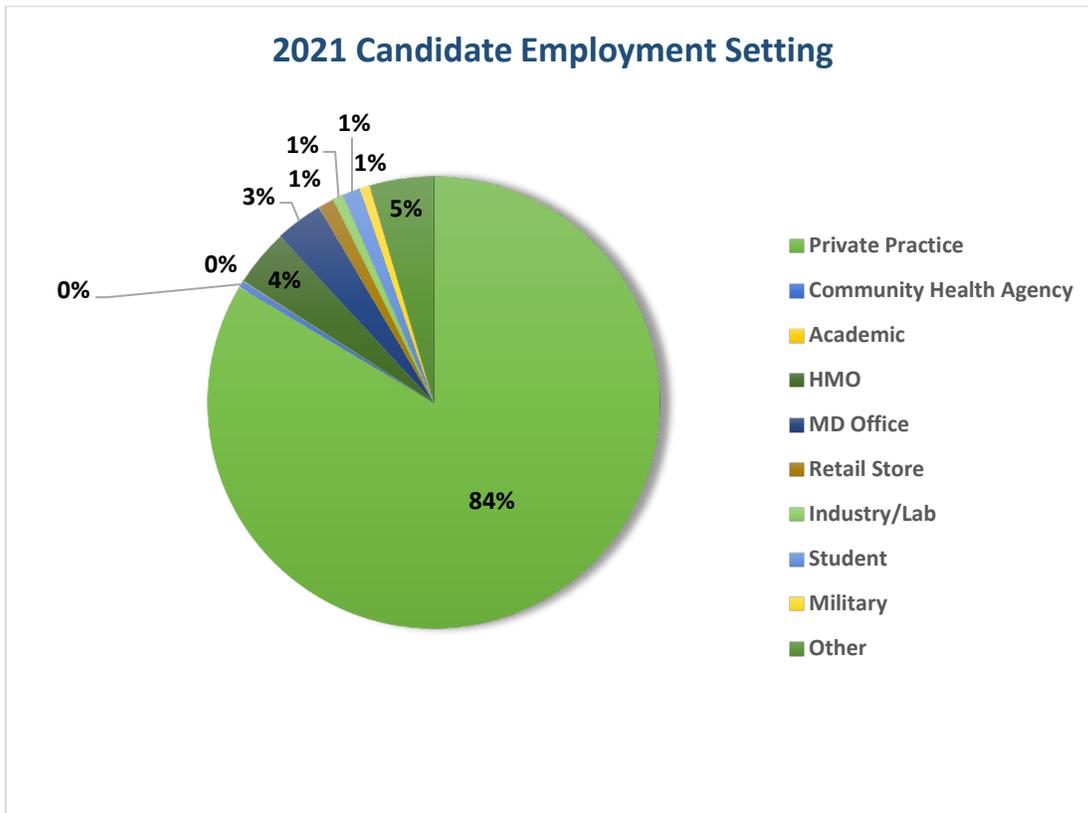
The trend in the education level continued with most candidates (62%) holding a minimum of a high school diploma or equivalent. One-third (33%) of candidates held an Associate's, Bachelor's, or Master's degree, while only five percent (5%) of candidates were enrolled or were graduates of a CPC or ACOE approved optometric assistant or technician program.



Year in Review

Employment Setting

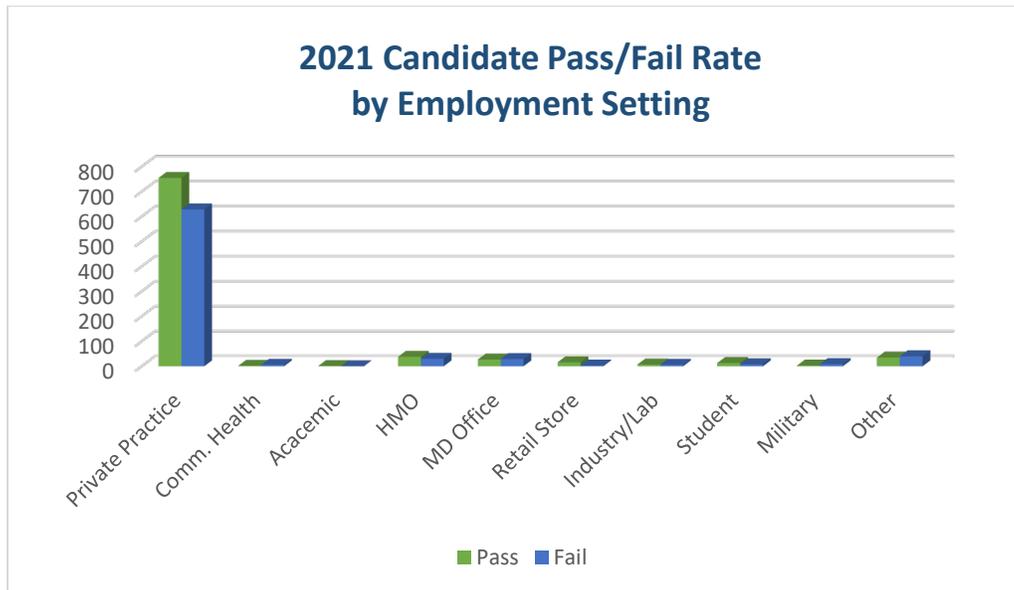
Overall, 84% of candidates (an increase of 3% since 2020) were employed by a private practice. Of the 1,384 candidates in this category, 54.5% or 755 paraoptometric candidates passed the CPO, CPOA, CPOT, or CPOC examination on the first or second attempt, representing a 23.5% decrease in the pass rate since 2020 of candidates employed by a private practice.



Employment in private practice settings rose slightly, up about 3% from 2020.

Year in Review

The predominant employment setting for candidates taking any paraoptometric examinations remains the optometric private practice.



The drastic decrease in the passing rate across all examinations seems to be a combination of several factors. According to Professional Testing Corporation president, Vicki Gremelsbacker, it is not uncommon to notice a decrease in the passing rate when a new form of the examination is first released. Passing scores were also raised slightly on the CPO and CPOA examinations, based on the Angoff Method of Standard Setting, following the 2019 Job Task Analysis. Passing scores for the CPOT written and clinical examinations and the CPOC examination were not changed. 9% of examinations were hand-scored to insure accuracy.

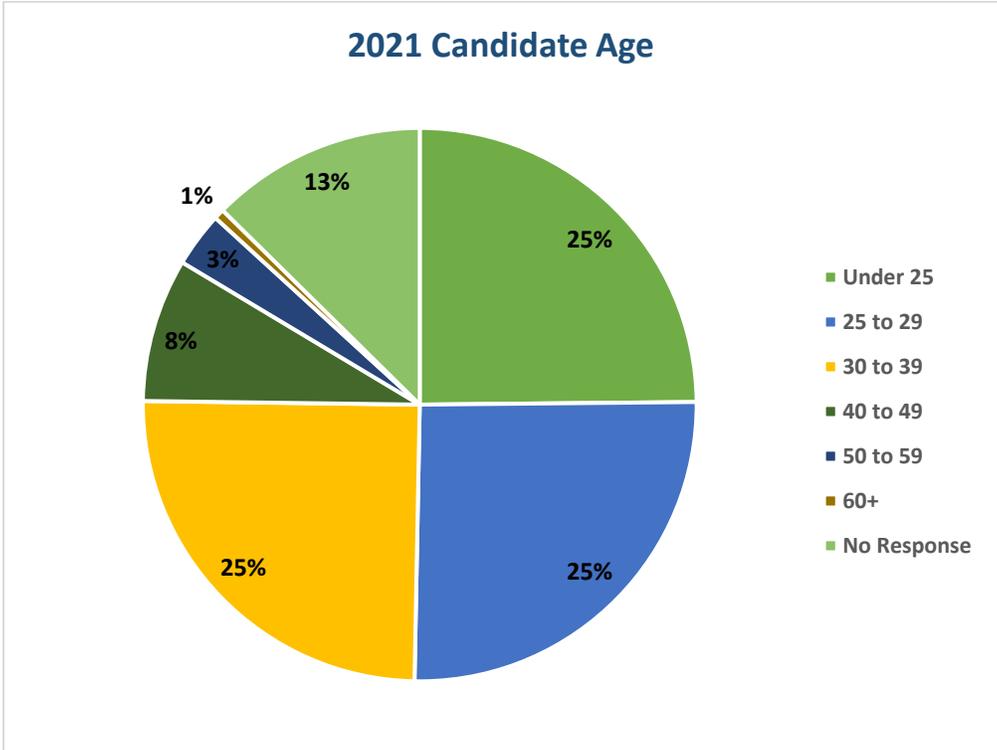
The pass rate fell 23.5% for those employed by a private practice.

An informal survey of a small sample of paraoptometric candidates who tested in 2021 also revealed that candidates were unaware of the new content outlines, the resources available in the candidate handbook, and of the new and additional study materials that were recommended on the website and in the candidate handbooks. Of those surveyed, several indicated that they were registered by someone else in the office and were not made aware of the available resources. However, it is incumbent upon each candidate to read the entire handbook and perform due diligence, so that they are adequately prepared. A new or expanded domain covering contact lenses appeared in the CPO, CPOA and CPOT examinations. And finally, a greater percentage of candidates with less experience participated in examinations in 2021. The percentage of paraoptometric candidates with 1-5 years of experience fell from 73% in 2020 to only 51% in 2021, while the percentage of paraoptometric candidates with less than one year of experience rose from 9% in 2020 to 30% in 2021.

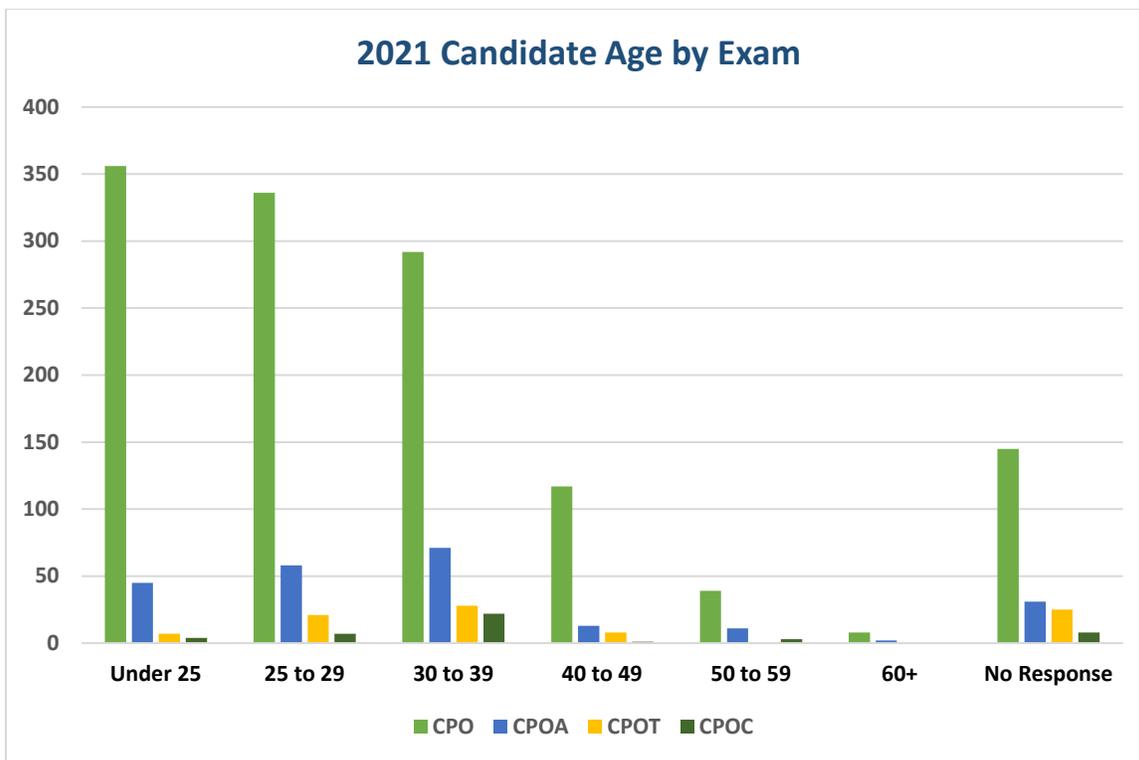
Year in Review

Candidate Age

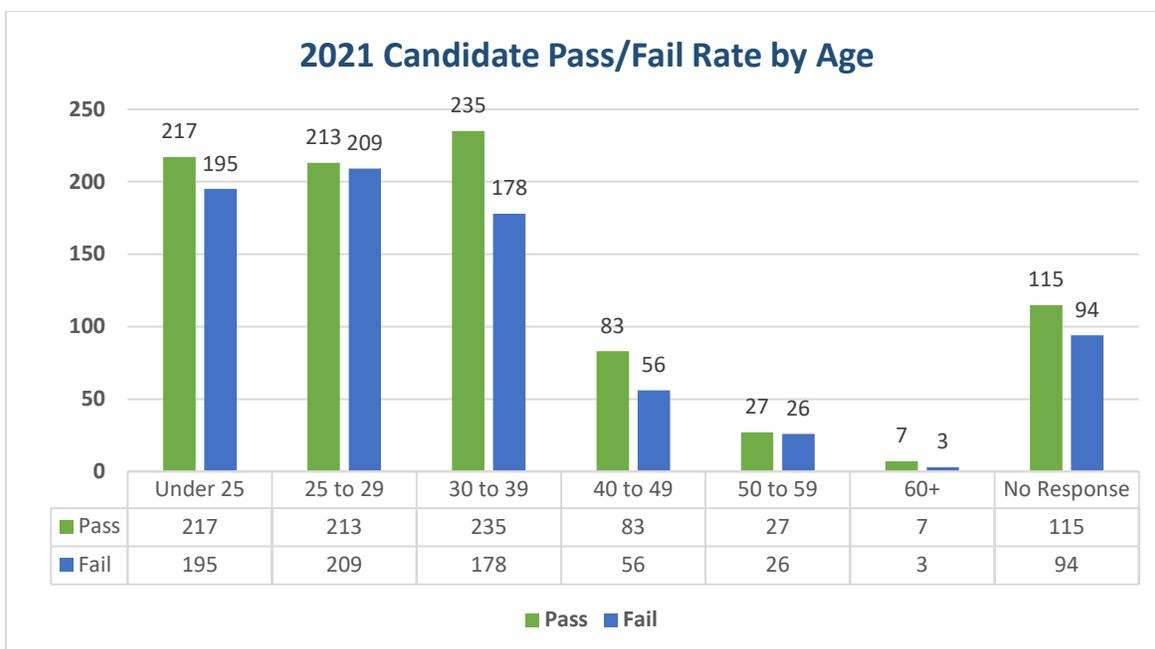
The largest age group (50%) was comprised of candidates who were between the ages of 25-39, followed by one-quarter (25%) under the age of 25, and the remaining 12% of those who responded being in the age of 40 and older. 13% of the candidates did not provide their age.



Year in Review



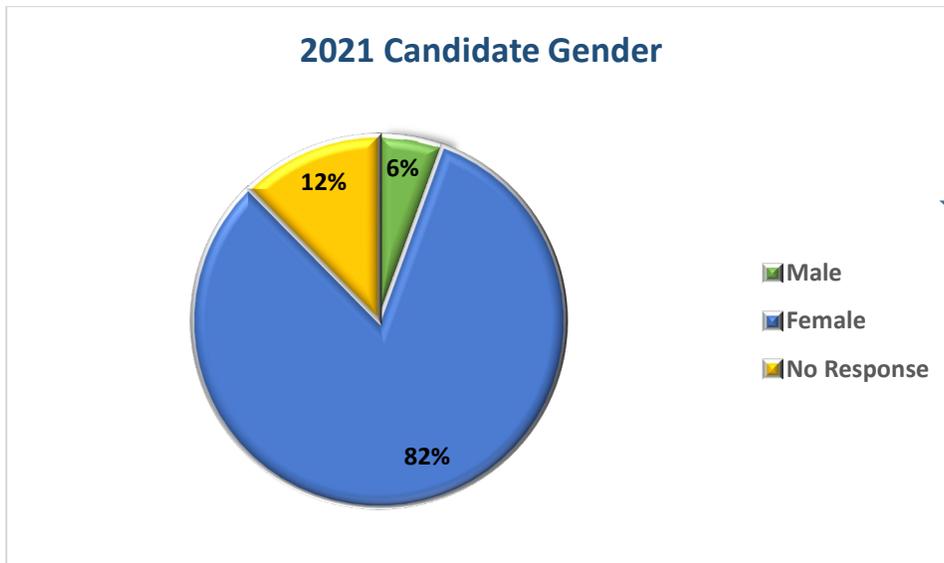
Of those who provided their age, the highest group passing rate was again the 60+ group with an average 70% passing rate. Those in the 40-49 age range experienced an average 60% pass rate, while those in the 30-39 group were at an average 57% passing rate. The average passing rate for the under 25 age group was 53%, followed by 25-29 and 50-59 age groups, each with an average passing rate of 50%.



Year in Review

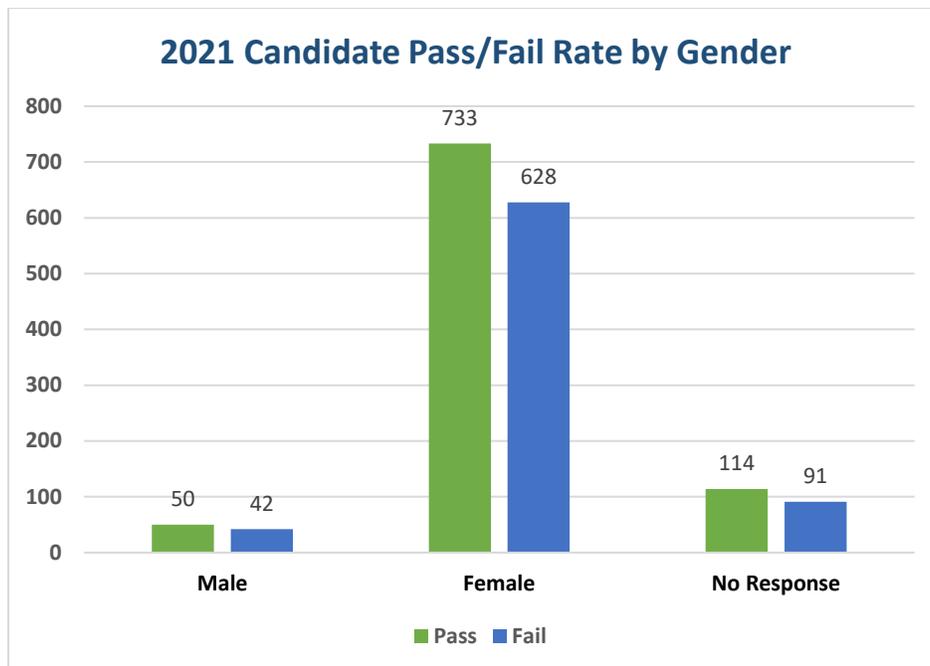
Candidate Gender

In 2021, of the 1,453 respondents who identified their gender, the percentage of female candidates was predominantly higher than the number of male candidates, with just over 6% of candidates identified as male. Just over 12% of candidates declined to identify their gender.



The percentage of identified male candidates in 2021 decreased for the 2nd year in a row.

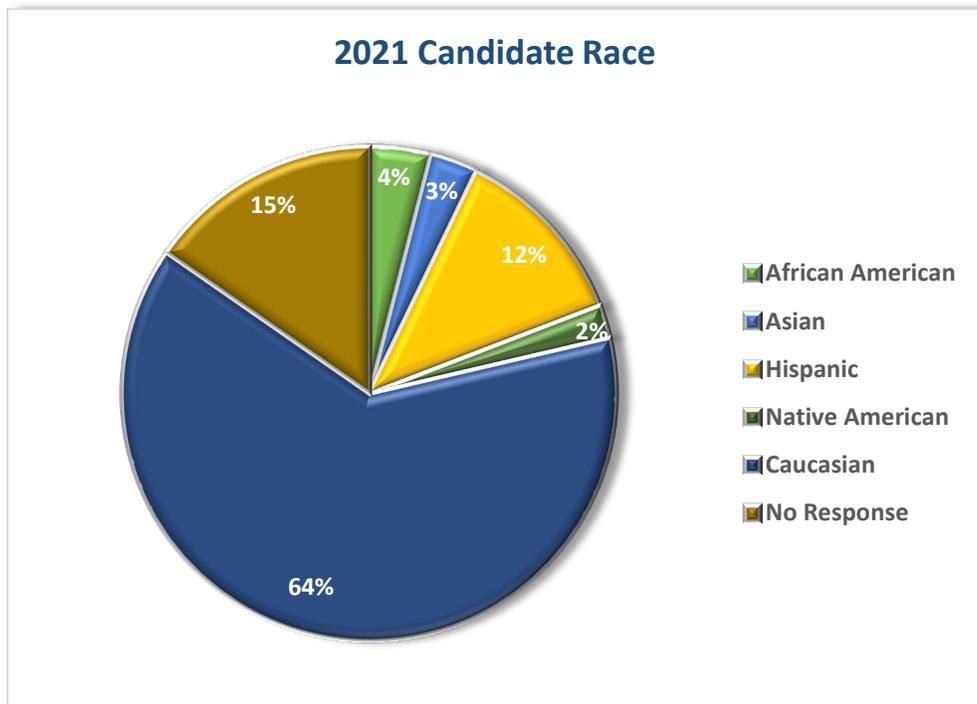
Of the candidates who indicated gender, there was no significant difference in the pass rate based on gender: 54% of male and 53.8% of female candidates passed their examination. However, these pass rates are significantly lower than they were in 2020 when the pass rates for male and female candidates were between 75% and 77.5%, respectively.



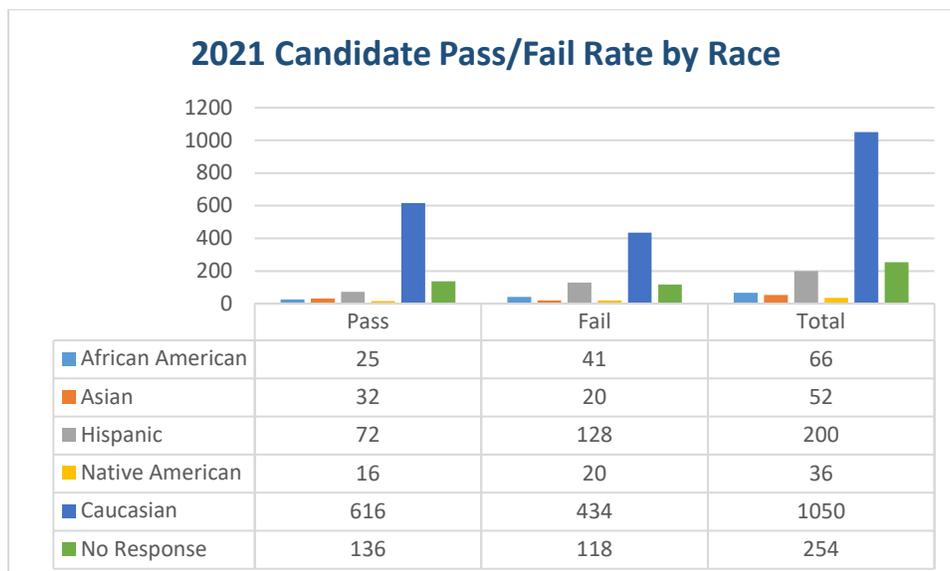
Year in Review

Candidate Race

These statistics are nearly identical to 2020 candidate breakdowns. Of those who indicated race on their application, Caucasians accounted for 64% of all candidates. Hispanics made up 12% of the candidate pool, with the remaining 9% of respondents (up 1% since 2020) being comprised of African American, Asian, and Native American candidates, while 15% (down from 16% in 2020) marked no response.



Of the candidates who identified their race as Asian, their pass rate was remained the highest among the candidates at 61.5%, followed by those who identified themselves as Caucasian, at a 58.6% passing rate.



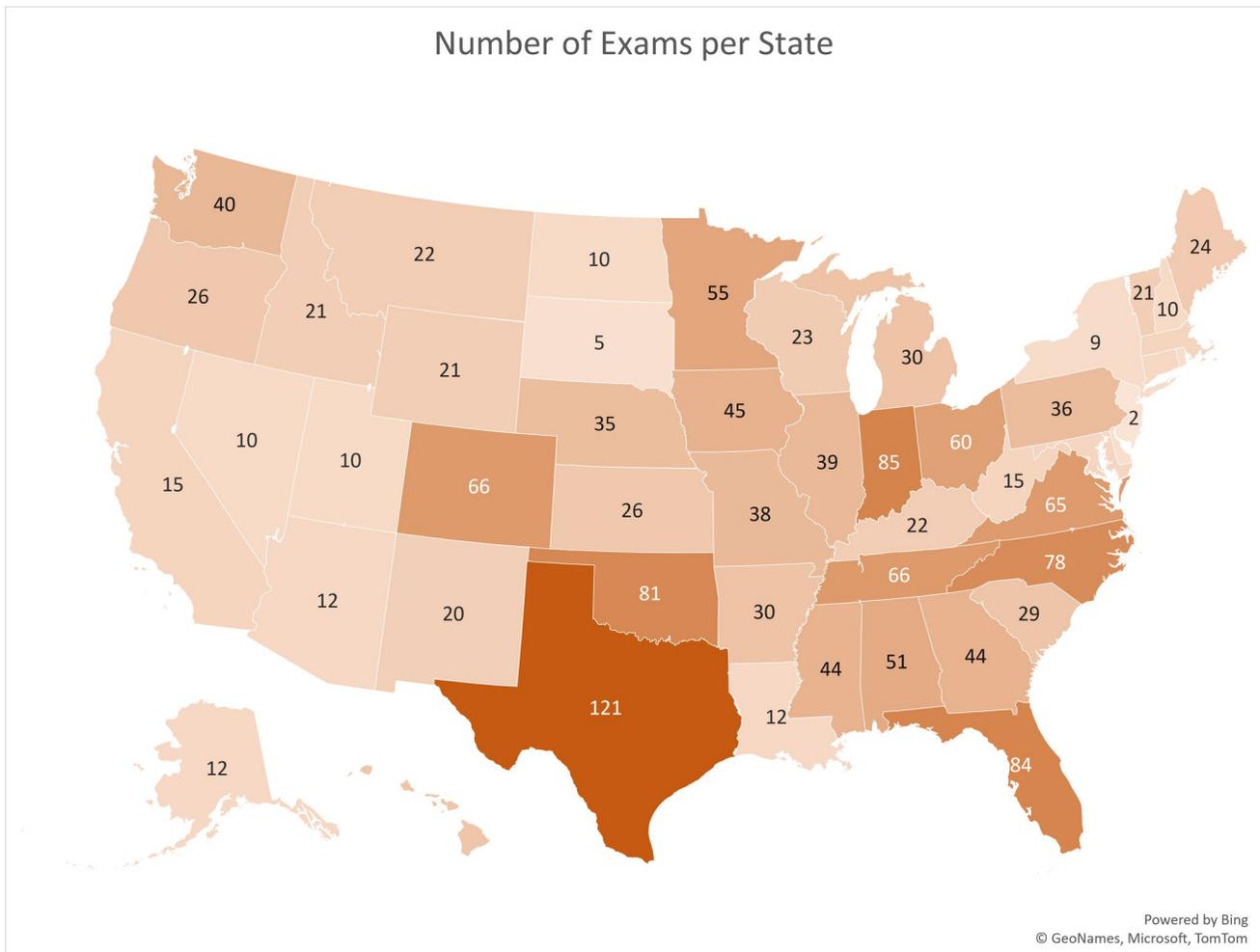
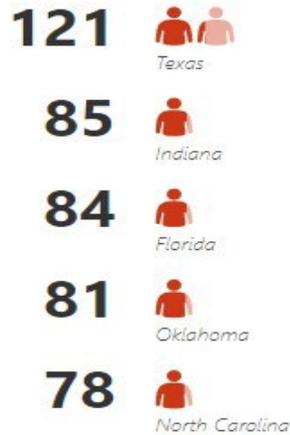
Year in Review

State Statistics

The top five states with the most exam candidates in 2021 were Texas, Indiana, Florida, Oklahoma, and North Carolina.

For the seventh consecutive year, Texas produced the most candidates. Indiana edged out Florida and took second place while Oklahoma dropped to the fourth highest number of candidates and North Carolina came in with the fifth highest number of candidates.

MOST EXAMS PER STATE

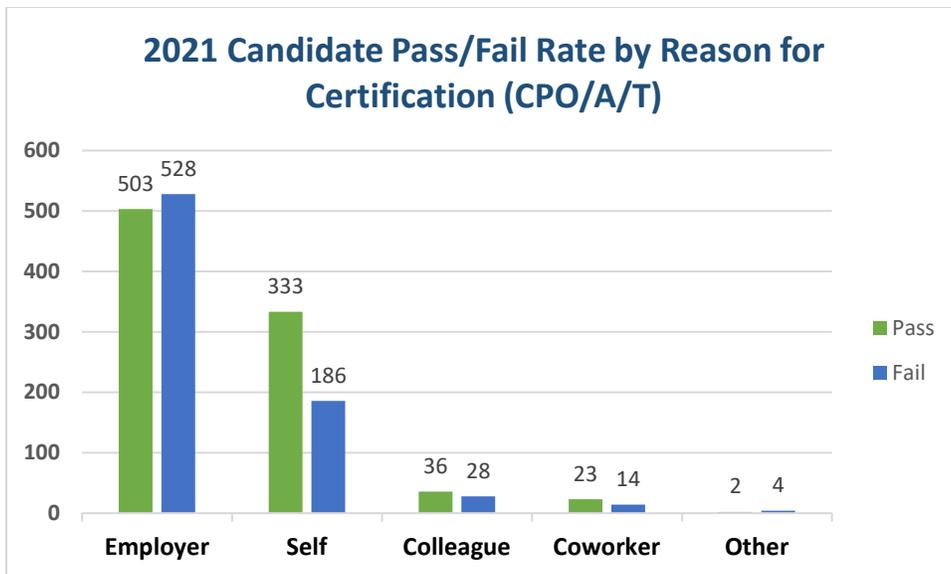
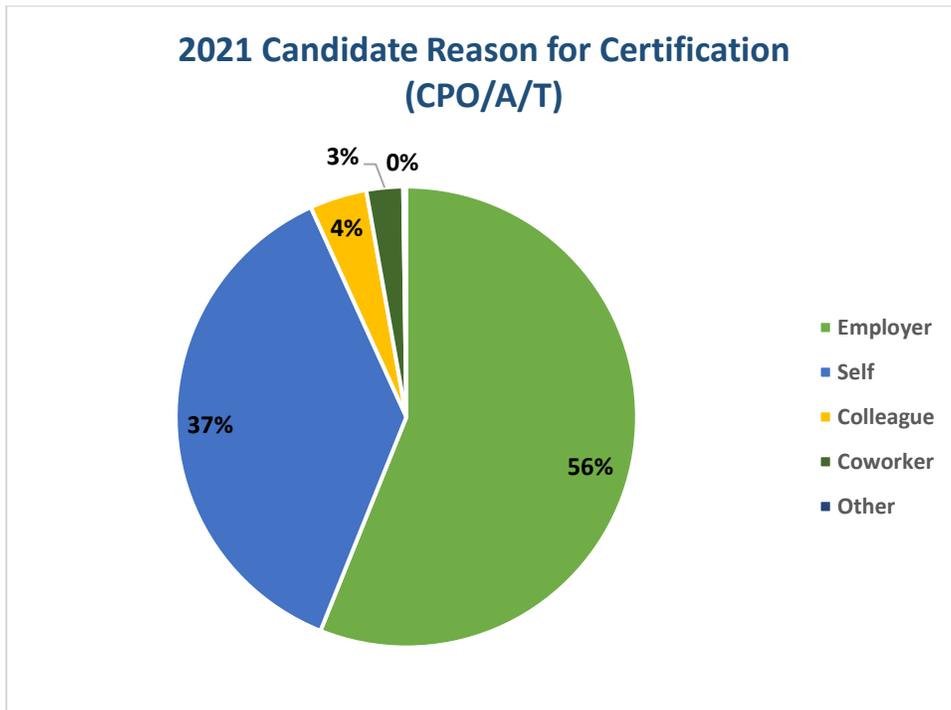


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Year in Review

Reason for Certification

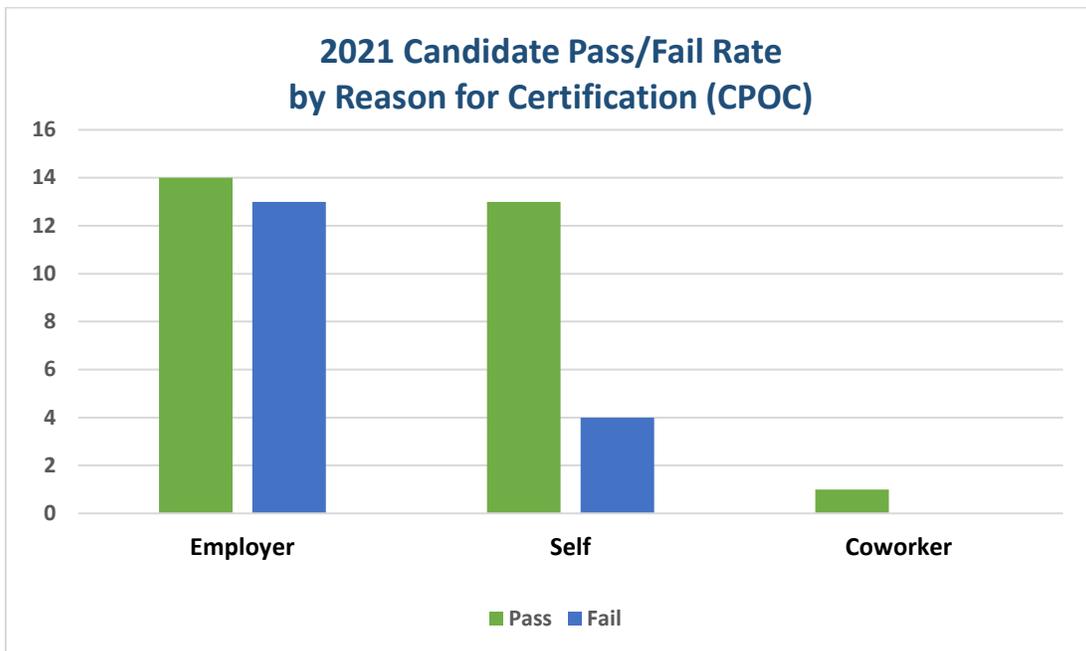
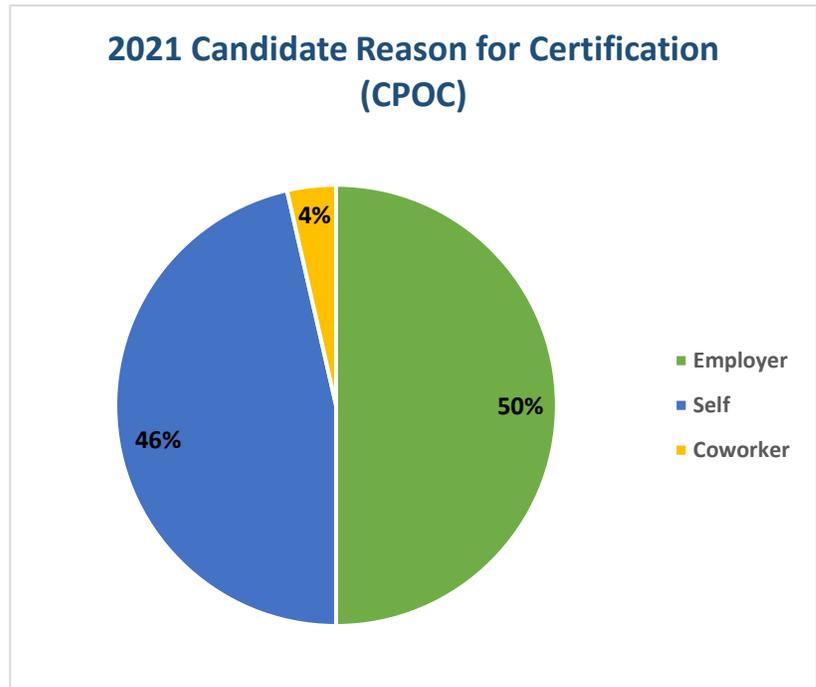
Employer-required certification at the CPO, CPOA and CPOT level dropped from 63% in 2020 to 56%, while self-motivation rose from 29% in 2020 to 37% in 2021.



Year in Review

In 2021, 46% of CPOC candidates were self-motivated to sit for the exam (down from 54% previously), while employer influence increased to 50% and coworker influence rose to 4%.

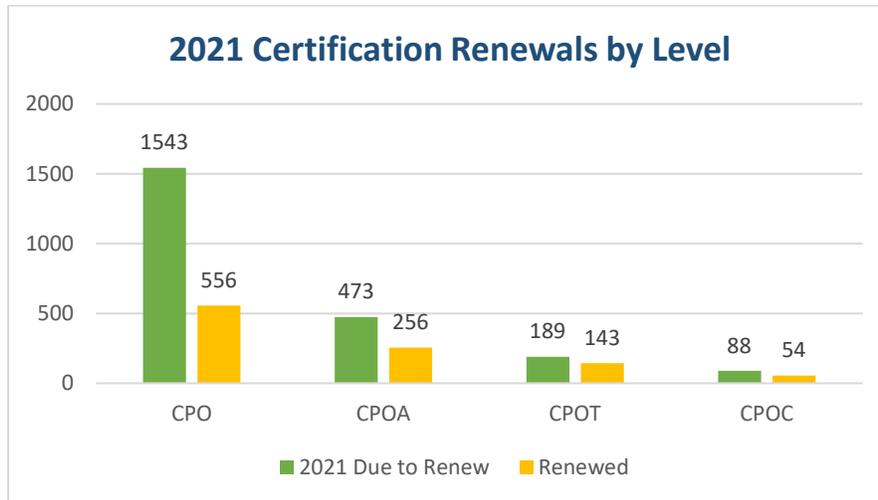
The percent of passing candidates who were urged by their employer to test also fell for the second year in a row from 59% in 2020 to just under 52% in 2021. However, self-motivated testers had a passing rate of nearly 77%, a 4% increase over the passing rate in 2020.



Year in Review

Certification Renewal

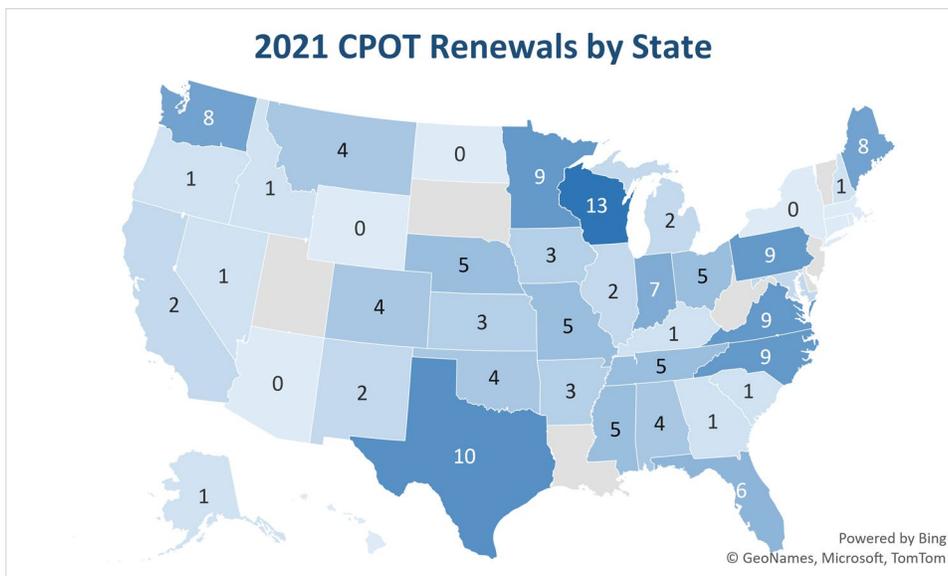
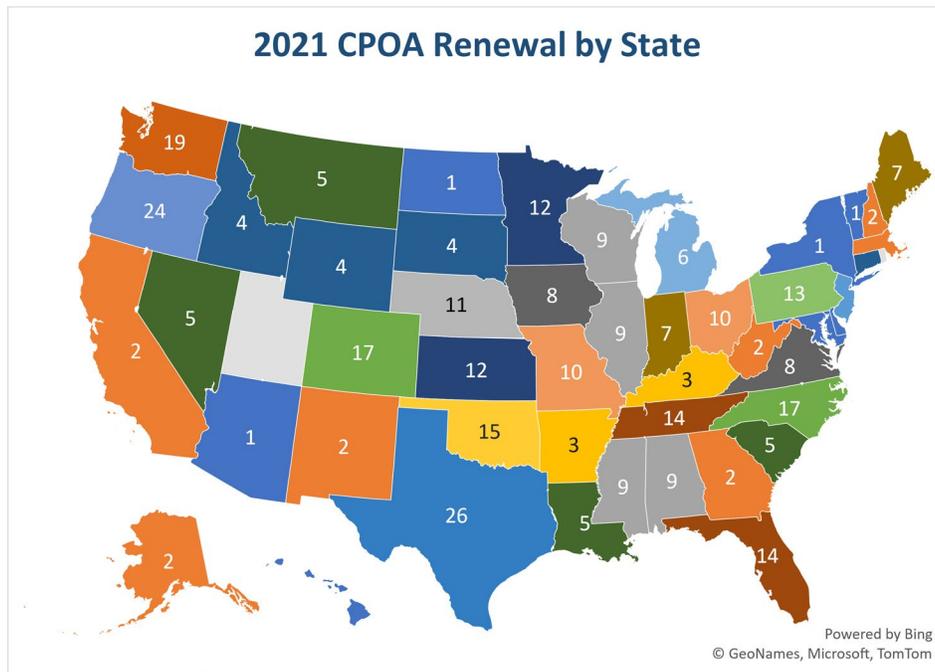
In 2021, while still feeling the effects of reduced opportunities to attend in-person education, 44% of the 2,293 certifications that were due for renewal were completed. The renewal statistics showed that 556 CPOs (36%) renewed their certification, while 256 CPOAs (54%), 143 CPOTs (76%) and 54 CPOCs (61%) were renewed until 2024. The overall renewal rate of 44% of the eligible certificants is consistent with the last four renewal periods that averaged between 44-45%.



The following maps depict the number of renewals by state or Canadian province. One CPOA from British Columbia and two from Manitoba renewed their certification. No Canadian CPOs or CPOTs renewed a certification.



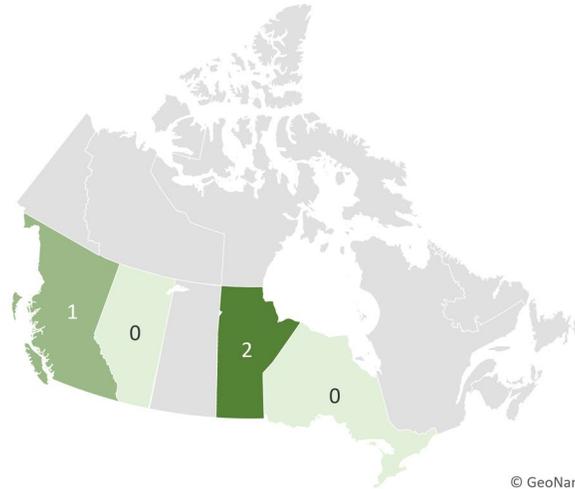
Year in Review



In addition to the CPOT renewals completed within the continental U.S., five military members with addresses overseas renewed their certification in 2021.

Year in Review

2021 Canadian CPOA & CPOT Renewals by Province



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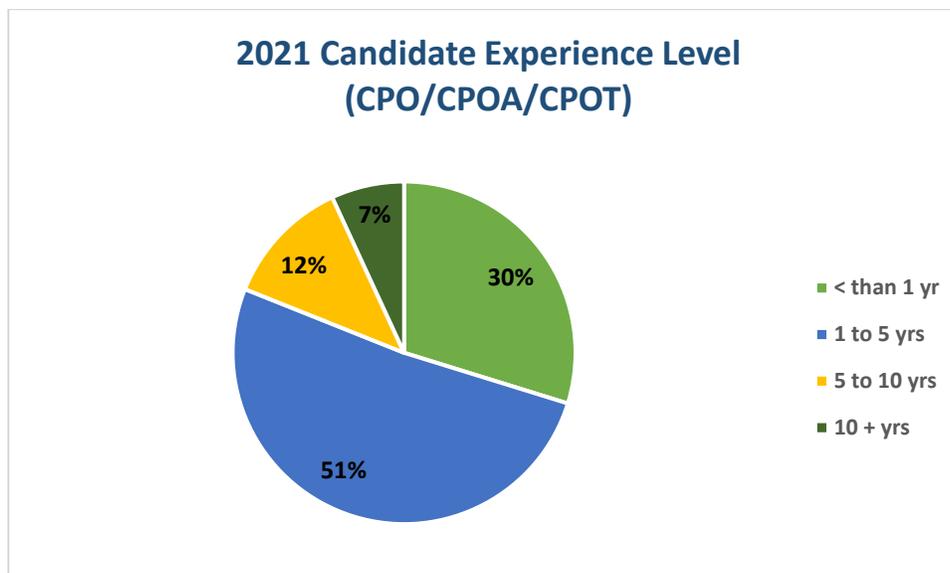
Appendix

Certified Paraoptometric (CPO) Exam

The CPO examination is comprised of 100 scored multiple-choice questions and 20 unscored* items. A minimum score of 80% is required to pass. The examination is divided into four domains: clinical principles and procedures (36%), ophthalmic optics and dispensing (20%), contact lenses (20%), and professional issues (24%). A total of 1,293 candidates sat for the CPO examination in 2021 and 52% received a passing score. The lowest score reported was 35% and the highest was 99%. The basic science domain was removed, and the domain of contact lenses was added, based on the results of the 2019 Job Task Analysis.

Month	First Time Candidates		High Score	Low Score	Average % Correct	Repeat Candidates	
	Pass	Fail				Pass	Fail
February	93	78	99	42	79%	6	11
May	194	170	99	39	79%	15	17
August	150	165	98	35	77%	17	17
November	178	147	98	45	78%	17	18

Just over half (51%) of CPO, CPOA, and CPOT candidates who tested in 2021 had between one and five years of experience, with 30% having less than one year of experience. This is a notable decrease from 2020 when nearly three-quarters (73%) of the candidates reported having between one and five years of experience. In 2020, only 9% of candidates reported having less than one year of experience.



*Unscored items do not count towards or against a candidate's score. These items are being evaluated to determine if they perform well enough statistically to be introduced as scored items on a future exam.

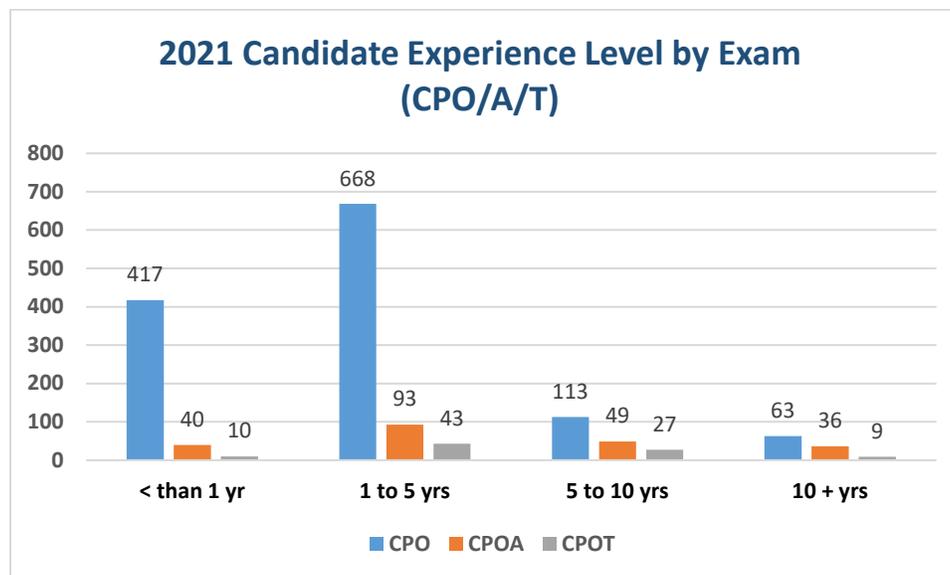
Appendix

Certified Paraoptometric Assistant (CPOA) Exam

The CPOA examination is comprised of 200 scored and 20 unscored* multiple-choice questions. A minimum score of 74% is required to pass. The examination is divided into five domains: testing and procedures (25%), special procedures (25%), ophthalmic optics and dispensing (12%), contact lenses (13%), and professional issues (25%). A total of 245 candidates sat for the CPOA examination in 2021 and 64% of them passed. The lowest score was 47% and the highest score was 95%.

Month	First Time Candidates		High Score	Low Score	Average % Correct	Repeat Candidates	
	Pass	Fail				Pass	Fail
February	15	8	178	116	75%	0	3
May	43	22	190	101	75%	1	2
August	49	18	187	94	75%	1	2
November	43	31	183	112	75%	4	3

The majority of CPOA candidates indicated they had between one and five years of experience.



*Unscored items do not count towards or against a candidate's score. These items are being evaluated to determine if they perform well enough statistically to be introduced as scored items on a future exam.

Appendix

Certified Paraoptometric Technician (CPOT) Exam – Written

The CPOT Written examination is comprised of 225 scored and 25 unscored* multiple-choice questions. A minimum score of 69% is required to pass. The examination is divided into six domains: pre-testing procedures (23%), clinical procedures (27%), ophthalmic optics and dispensing (13%), contact lenses (11%), and professional issues (26%). A total of 46 candidates sat for the CPOT Written examination in 2021. Thirty-two, or 70%, of testers passed their written examination. The lowest score was 57% and the highest score was 92%. CPOT tests were only administered during the May and November examination periods.

Month	First Time Candidates		High Score	Low Score	Average % Correct	Repeat Candidates	
	Pass	Fail				Pass	Fail
February	0	0	n/a	n/a	n/a	0	0
May	15	6	194	132	72%	3	3
August	0	0	n/a	n/a	n/a	0	0
November	13	5	208	128	75%	1	0

Certified Paraoptometric Technician (CPOT) Exam – Clinical

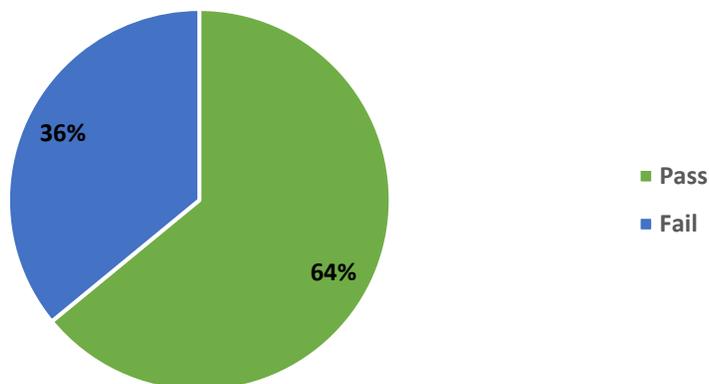
The CPOT Clinical examination is comprised of 100 scored multiple-choice questions. There are no unscored items on this exam. A minimum score of 75% is required to pass. The examination is divided into five domains: pre-testing procedures (45%), special procedures (22%), optical dispensing techniques and recording (18%), and contact lenses (15%). A total of 43 candidates sat for the CPOT Clinical examination in 2021 and 58% of them passed. The lowest score reported was 63% and the highest was 90%. CPOT tests were only administered during the May and November examination periods.

Month	First Time Candidates		High Score	Low Score	Average % Correct	Repeat Candidates	
	Pass	Fail				Pass	Fail
February	0	0	n/a	n/a	n/a	0	0
May	11	7	88	63	77%	3	2
August	0	0	n/a	n/a	n/a	0	0
November	10	6	90	65	76%	1	3

*Unscored items do not count towards or against a candidate's score. These items are being evaluated to determine if they perform well enough statistically to be introduced as scored items on a future exam.

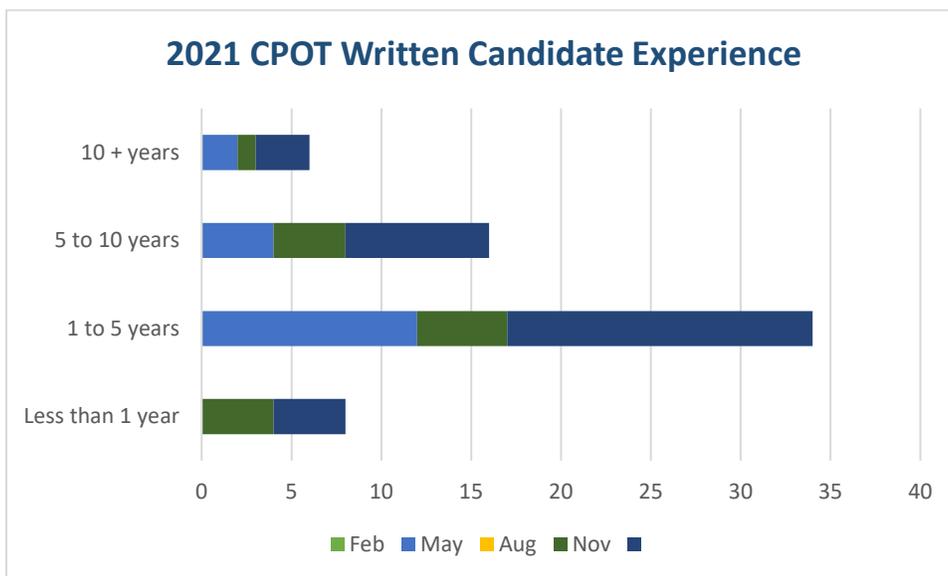
Appendix

2021 CPOT Overall Pass/Fail Rate for Either Exam



The overall passing rate for a CPOT examination was 64%. The majority of candidates (60%) testing at the CPOT level indicated they had one to five years of experience, followed by five to ten years of experience (30%). The candidates claiming less than one year of experience (1%) are likely graduates or candidates testing during the last semester of an ACOE-approved optometric technician program.

2021 CPOT Written Candidate Experience



Appendix

Certified Paraoptometric Coding (CPOC) Exam

The CPOC examination is comprised of 125 multiple-choice questions. A minimum score of 70% is required to pass. The examination is divided into seven domains: anatomy and physiology (8%), medical terminology (8%), review of Current Procedural Terminology® (AMA) (22%), diagnosis codes (24%), medical records (14%), claim filing (12%), and compliance (12%). A total of 45 candidates sat for the CPOC examination in 2021 and 61% passed the examination. The lowest score reported was 50% and the highest was 90%.

Month	First Time Candidates		High Score	Low Score	Average % Correct	Repeat Candidates	
	Pass	Fail				Pass	Fail
February	4	0	109	75	73%	3	0
May	0	0	0	0	0%	0	0
August	11	3	111	63	76%	1	0
November	8	7	112	67	73%	1	0

The experience level for the CPOCs testing in 2021 was predominantly those with three to five years of experience (41%), while those at the minimum requirement of two years of experience comprised just under one-third (32%) of the candidates. The experience level of those in the candidates with five or more years of experience increased from just 12% in 2020 to 27% in 2021. These statistics show a noticeable shift in the increased experience level of candidates testing in 2021, when in 2020 more than half of candidates (52%) had just met the minimum requirements of at least two years of billing and coding experience.

