

ADVANCEMENT & DEVELOPMENT PROJECT

COMPUTER-BASED TESTING AND PART IV EXAM

Questions & Answers

Changes to the Part IV Exam

Impact to Cost for Students

How do you think the overall cost to students will be impacted?

A: According to our projections, moving to a centralized assessment center will result in better cost containment over time as opposed to our current distributed testing model. This cost containment is driven by two main factors:

1. Allowing for more efficient utilization of resources: With all services and staffing in one location, NBCE will be able to leverage the volume of examinees and frequency of testing events to capture savings. There are many examples of this but one that really demonstrates the waste involved in our distributed staffing model involves the hiring of test site staff. At each of our testing locations, we hire approximately ten people to serve in a reserve capacity in the event that other staff do not show up the day of the exam or there is an emergency during the exam that results in a loss of staff. With 14 test sites, this equates to 140 staff members who may or may not be needed but are still getting paid to be at the test site. In a centralized location, we may need only one or two people in reserve, and we will have the tools and resources to utilize their time at our facility to perform training or other activities related to the administration of the exam.
2. Reducing cohort sizes to better manage variable costs: In our current model, variable expenses are impacted by integrals of 25 examinees *at each test site*. Because of this, the complicated process of assigning examinees to test sites requires the NBCE to make tradeoffs between operational efficiency, and examinee travel. For example, demand for test site X is 85 examinees. We could assign 75 to test site X, and 10 will have to travel. Or we could assign all 85 to test site X, and those examinees testing in a rotation of 10 (instead of the maximum capacity of 25) will incur the same expense as the groups of 25. Again, multiply this wasted capacity times 14 test sites, and you can imagine the amount of money the NBCE spends on “empty seats”. At a centralized testing location, where we can test consistently throughout the year, we can reduce the maximum capacity to 8 examinees while at the same time introducing scheduling flexibility that allows us to respond to fluctuations in demand. This eliminates the significant waste experienced at our distributed test sites where we are forced to operate below capacity.

Although moving to a centralized testing location will require significant capital investment, our cost analysis shows that the annual administration expenses will not be higher than our

current administration costs. This cost is reflective of innovations such as robust technology that will allow us to provide a more standardized and higher quality exam experience than is currently possible. Also, the NBCE reserve fund was designed to cover investments in innovations. So, we can utilize these funds to cover the large capital investment required to build the assessment center and install the new technology.

There will be an increase in travel expenses for the majority of our examinees. Currently, approximately 40% of examinees travel to a Part IV test site, either because their campus does not have a Part IV test site, or because they were not able to get their preferred testing location. For the remaining 60% of examinees that would have been able to test on their campus, we estimate that they will spend anywhere between \$409 to \$578 for airfare and accommodation under a centralized testing model.

The NBCE did evaluate multiple delivery models for the proposed Part IV format including continuing to administer tests on Doctor of Chiropractic Program campuses. With the proposed changes to the number of stations, as well as the introduction of the proposed technology at 14 test sites, annual exam expenses were projected to be 64% higher than our current Part IV administration expenses (please note that this percentage only includes annual expenses. It does not include the additional costs for purchasing and installing the technology at each test site, which was a significant factor in the decision to propose a centralized testing location.) This would result in an exam fee of \$2,600 for the Part IV, an increase of \$1,015 from the current fee. Although we understand that the increased travel expenses related to centralized testing is burdensome to the majority of our examinees, it is the most financially advantageous out of all the options considered. This is why the NBCE is in the process of investigating ways to minimize the additional travel expense such as;

- Providing transportation to and from the airport, and to and from the hotel and assessment center.
- Negotiating discounted rates with hotels.
- Negotiating discounts with airlines.
- Investigating scholarship opportunities to assist with travel costs for financially disadvantaged examinees.

With the extensive financial burden students are currently facing, why would you consider a change that could increase the expense related to pre-licensure testing?

A: This is one of the primary reasons we are proposing a move to centralized testing. Our current administration model is financially unsustainable for many reasons, but the difficulty of managing expenses across 11 different locations is one of our top concerns. Moving to one centralized location will allow us to better manage costs, realize the financial gain from an economy of scale, and maximize current resources to hold costs steady over time.

Another factor is the introduction of video recording. This technology is essential to the future performance and quality of chiropractic pre-licensure testing. Introducing and maintaining this technology at 14 test sites is not financially feasible. To capture the benefits of this technology, we have to implement it on a much smaller scale.

Will there be a remediation policy that determines who bears the burden of cost if testing is cancelled (e.g. a weather-related event that makes the test site inaccessible)?

A: Yes. We already have Administrative Irregularity and Technology Malfunction policies for our CBT exams found here: <https://mynbce.org/wp-content/uploads/2020/05/NBCE-Exam-Administration-Irregularity-Cancellation-Policy.pdf> and the Part IV examination policies are available here: <https://mynbce.org/wp-content/uploads/2020/05/NBCE-Part-IV-Exam->

[Administration-Irregularity-Cancellation-Policy.pdf](#). To summarize, if any exam is cancelled or significantly delayed by the NBCE, the examinee will receive multiple rescheduling options at no additional cost. Our current policies do not cover the reimbursement of travel expenses. If we move forward with a centralized testing location, we will investigate travel insurance policies which could potentially be bundled into the cost of the exam. This would allow a third-party provider to manage and reimburse eligible travel expenses while limiting the NBCE's exposure to these unpredictable expenses.

The impact of a test site closure in the current distributed location testing model is one of the risks we are trying to mitigate by moving to a centralized testing location. A decision to close one test site will impact approximately 150 examinees. Further, the NBCE's effort and expense associated with closing one of our current Part IV test sites is extremely high.

Logistical issues:

- Staffing concerns - will the people who have already been hired and trained be available for a re-administration?
- Will the test site be available? Not only because they may have other commitments, but if there is a natural disaster (flood, hurricane) will the building be in an appropriate condition for future testing?
- How many examinees traveled to the test site? Will they have to pay travel expenses related to a re-administration?
- What if an impacted examinee is not available for the re-administration date? Will they be willing to wait six months for the next testing opportunity?

NBCE's expenses:

- The cost of exposing a new form
- The cost of retraining the simulated patients for the new exam form
- The cost of producing and shipping new exam materials for the new exam form

Moving to a centralized testing location will minimize the impact of exam cancellations and enable NBCE to respond quickly and with more flexibility than with the current administration model.

Impact to Administration of the Exam

What is the capacity of the exam? Will the exam be offered more frequently?

A: The number of stations dictates how many examinees can be tested at one time. If there are eight stations, we will test eight examinees at a time. We are planning to build two sites, for redundancy and risk mitigation, which will allow us to test up to 16 examinees at a time. If we test three days a week, 48 weeks out of the year, we will have the capacity to test 125 percent of the current number of examinees. That means that each examinee will effectively have 25 percent more scheduling options.

Another benefit of the centralized testing model is the ability to adjust scheduling opportunities in real time. If there is increased demand in January, we can open the testing center five days a week. If there is a slow month, we can close the center to better manage costs.

Have you determined what Electronic Health Record system will be used for the SOAP note component so we can incorporate that into our Part IV preparation?

A: The NBCE does not plan to use an Electronic Health Record system. Instead, the SOAP note will be completed much like an essay-style response where the examinee will receive a brief prompt and then type in a response that documents their interaction with the patient as well as their treatment plan. This will not be as robust as a typical electronic health record, such as what is currently required in clinics, but will be sufficient for the evaluation of the examinee's skills and knowledge. We plan to have the SOAP note component available on our website so examinees may practice with the tool prior to the exam.

How much time will the examinee have in each station?

A: Pilot testing will be conducted prior to implementation to definitively answer these types of questions. Currently, we are considering a 20-minute station which includes a maximum of 14-minutes in the patient encounter station and a six-minute note station.

What is the purpose of the real-time monitoring and recording? Will it replace having an examiner in the room or would it be used for those who are refuting an exam?

A: Yes. It will replace the examiner in the room. Practical testing has been moving in this direction for a long time with the goal of eliminating the observer effect. It will also make it easier and more cost effective to analyze inter-rater reliability. Station recordings will also be used for training of both standardized patients and examiners.

We do not anticipate allowing examinees to directly review the recordings for any appeal or disputes, but NBCE can utilize the recordings for an internal review prompted by an examinee's appeal.

How soon will an examinee be able to retake the Part IV after failing?

A: The examinee will still have to wait approximately four weeks to receive their score. After that, they can immediately apply to retest. Based on the modeling that has been performed, we anticipate that an examinee will be able to schedule a retest within two to three months. We also plan to add more flexibility into our cancellation and rescheduling policies, which could enable some immediate availability to those who need to retest quickly.

Impact on Scoring

Have you thought about how you're going to address potential bias effects from your graders now that each station carries more weight? One examiner who is really stringent and grades a lot harder will have a bigger impact on the examinee's score.

A: The addition of video recording will make it easier to identify any bias from the graders. We can easily have two examiners score the same station independently and compare the results. This practice measures inter-rater reliability and will continue to allow NBCE to identify any graders who are exhibiting bias as well as provide additional training to those graders.

Implementation

Have you determined how these changes will be phased in?

A: We plan to implement these changes in 2026. A more detailed timeline will be communicated in 2025, and we will work with the chiropractic programs and students to ensure they are aware and prepared for the new exam format.

Project Analysis

With the majority of Doctor of Chiropractic Programs located on the East and West coast, have you investigated regional testing centers instead of a centralized location in Colorado?

A: Yes. NBCE investigated numerous alternatives to a centralized testing location in Greeley, Colorado. Below is a table that shows a high-level analysis of the different testing locations that were considered. This table ranks each option according to the project criteria. The option with the highest average ranking reflects the optimal solution while the lowest average ranking reflects the least optimal solution.

<i>Project Criteria: ranked from 1 to 4</i>	Option 1: Centralized Testing- Greeley, CO	Option 2: Centralized Testing- Other location	Option 3: Regional Testing Centers	Option 4: Testing on DCP Campuses
Cost (4= lowest cost)	4	3	2	1
Quality Control (4= highest quality control)	4	3	2	1
Standardization (4= highest standardization)	4	3	2	1
Examinee Travel (4= least amount of required travel)	1	2	3	4
Average Ranking	3.25	2.75	2.25	1.75

The additional costs of launching and running regional testing centers, in addition to the decreased standardization and quality control, make this a sub-optimal solution; especially when considering that many examinees would still have to travel to a regional testing center.

Why Greeley?

A: As we mentioned above, we did evaluate other options. Because NBCE owns land in Greeley that can accommodate a testing center and is able to repurpose an unused portion of the Horace C. Elliott Center, we will experience a significant cost savings over building or leasing elsewhere. Also, our current staff can provide important and valuable support services for the Part IV exam.

Denver International Airport (DIA) is a major hub for numerous airlines including United, Southwest, and Frontier and DIA is ranked fourth in the U.S. for the number of direct flight routes. To get examinees to Greeley we are considering offering a shuttle service to and from the airport, and from a hotel to the assessment center.

What is the standard? Do other professions have a centralized testing center?

A: Healthcare professions are unique in their use of simulated exams for pre-licensure testing, so there is no valuable comparison outside of healthcare. However, it is the standard among practitioner-level healthcare testing organizations that offer national pre-licensure practical exams to use centralized testing locations.

	Location of Practical Exam	Cost of Practical Exam
Canadian Chiropractic Examining Board	Hamilton, Canada	\$3,350 (Canadian Dollar) or \$2,509.47 (U.S. Dollar)
National Board of Examiners in Optometry	Charlotte, North Carolina	\$1,380

The National Board of Osteopathic Medical Examiners (NBOME) and the National Board of Medical Examiners (NBME) were consulted with regard to the format of their practical exams before the organizations discontinued the testing of these exams. The NBOME started with a centralized testing center located in Philadelphia. After the volume of candidates increased, and they began offering clinical skills testing for other professions, they opened a second center in Chicago. The NBME had five locations for their Part II Clinical Skills Examination, but the volume of examinees being tested dictated the number of centers they made available for testing.

What technology do you plan on using in the assessment center?

A: After an exhaustive search of the technology available for Objective Structured Clinical Exams (OSCE), we have identified Education Management Solutions as the vendor that best meets the needs of this project. Their products and support services are widely used in healthcare testing.

Is there anything that's compromising your confidence in the current administration method of the Part IV?

A. We are confident in the validity and reliability of the current Part IV exam format based on the data we have. However, introducing the proposed technology will allow us to collect much more data to analyze and further validate the assessment tool.