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To: Board Members **Date:** August 26, 2016
From: Jessica Sieferman **Telephone:** (916) 575-7184
Executive Officer
Subject: Agenda Item 10 – Update on Occupational Analysis and Audit of NBEO Examination

Background:

During the May 2016 Board meeting, the Board discussed the need for an occupational analysis and audit of the National Board of Examiners in Optometry (NBEO) examination. As reported, DCA Policy and industry standards, an occupational analysis and comprehensive audit should be conducted on licensing exams every five years. The occupational analysis is needed to assure validity, maintain consistency, preserve security, and ensure integrity of the examination. However, the Board has not had an analysis and audit performed since 2009.

The analysis and audit is estimated to cost \$85,912¹ total. This includes services from OPES and subject matter experts' time and associated travel expenses.

The Board requested more information from staff related to this process and if the Board could consider using alternative vendors to conduct the analysis and audit. After further research, it was determined that the Board could not use outside vendors at this time. OPES is comprised of civil service employees who can provide these services within their scope of expertise. Therefore, Government Code § [19130](#)(b) requires the Board to use OPES rather than contract with outside vendors.

To assist the Board, OPES provided the attached memo comprised of additional background information, a cost breakdown of their services, and a proposed project plan.

Attachments

1. OPES Memorandum

¹ This estimate is less than the original \$90,000 estimate reported to the members at the May 2016 meeting. During the BCP process, more accurate estimates were determined based on applicable rates and the project plan.



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ISSUE MEMORANDUM

DATE	August 10, 2016
TO	Jessica Sieferman, Executive Officer California State Board of Optometry
FROM	 Heidi Lincer, Ph.D., Chief Office of Professional Examination Services (OPES)
SUBJECT	Occupational Analysis and National (NBEO) Review Information

BACKGROUND INFORMATION

California Business and Professions Code section 139 (B&P Code section 139) requires, among other things, that the Department of Consumer Affairs (DCA) create a policy that establishes standards for the review of state and national licensure examinations used in California.

The following areas, at a minimum, are considered in a review of state and national examinations:

- Occupational analysis report and frequency of updates
- Demographic information about the sample of practitioners surveyed
- Description of method to establish content-related validity
- Test plan and method to link to occupational analysis
- Item development process (experts used, editing methods, etc.)
- Method to ensure standards are set for entry-level practice
- Size of item banks
- Statistical performance of examinations
- Examination reliability
- Pass point setting methodology
- Pass/fail ratio
- Test security methods; test administration processes
- Right to access information from all studies and reports from test vendors (local or national)
- Right of state agency to review recent examination

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OPES cannot recommend using a national examination without meeting the requirements of B&P Code section 139 and DCA policy.

Further, Government Code 19130(b) requires state agencies to use civil service employees to perform services within their scope of expertise rather than contracting with outside vendors. At this time, OPES anticipates being able to perform the occupational analysis and audit and cannot issue a waiver of services. OPES regularly conducts occupational analyses and audits of national examinations for DCA's boards, bureaus, and committees.

ESTIMATED COSTS FOR OPES SERVICES

The following estimates **do not** include the cost of subject matter expert (SME) time and any associated travel expenses. Typically, 8–10 SMEs are recommended for each workshop.

Optometrist Occupational Analysis Estimated Cost: \$57,992

Review of National Board of Examiners in Optometry
(NBEO) Exam and Linkage Study Estimated Cost: \$27,920

PROJECT PLAN

Review of the NBEO examination will begin toward the end of the occupational analysis since results of the occupational analysis are necessary for reference. Attachment A includes draft Project Plans with anticipated target dates.

OPES looks forward to working with the State Board of Optometry to complete these projects. If you have any questions, please contact me at 916-575-7265.

cc: Tracy Montez, Ph.D., Chief, Division of Programs and Policy Review

Attachment A

OPTOMETRIST OCCUPATIONAL ANALYSIS PROJECT PLAN

MAJOR PROJECT EVENTS	TARGET DATES
1. Develop Job Content and Structure	July/Aug 2017
Review background information Schedule and conduct interviews Transcribe interview information Develop preliminary list of tasks and knowledge	
2. Review Tasks and Knowledge	August/Sep 2017
Prepare for two 2-day workshops Conduct one 2-day workshop with SMEs Revise tasks and knowledge Conduct one 2-day workshop Revise tasks and knowledge	
3. Construct and Distribute Pilot Questionnaire	Sep/Oct 2017
Develop demographic items and rating scales Prepare questionnaire for pilot study Email questionnaire for pilot study Review results of pilot study	
4. Construct and Distribute Final Questionnaire	Oct-2017
Determine sampling plan Prepare draft of final questionnaire Prepare final questionnaire	
5. Data Analysis	Nov/Dec 2017
Download final questionnaire data files Prepare data files for analysis Analyze demographics, task and knowledge ratings Develop preliminary description of practice	
6. Review Results of Occupational Analysis	Dec-2017
Prepare for one 2-day workshop Conduct workshop Develop description of practice/examination outline	
7. Submit Validation Report	Dec/Jan 2017/18
Prepare draft of report Prepare camera-ready copy of report	

REVIEW OF NATIONAL EXAM (NBEO) AND LINKAGE STUDY PROJECT PLAN

MAJOR PROJECT EVENTS	TARGET DATES
1. Review Background Information	Nov 2017/Feb 2018
Review NBEO Examination Information Review NBEO Occupational Analysis Review NBEO Exam Administration Procedures	
2. Review Psychometric Quality of NBEO Exam	Feb/Mar 2018
Evaluate Psychometric Quality of NBEO Exams	

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3. Linkage Study of NBEO Exam Plan and CA OA Results	Mar/Apr 2018
Prepare for Linkage Study workshop Conduct 2-day workshop with SMEs Compile results of workshop	
4. Data Analysis	May/June 2018
Analyze Linkage Study Results	
5. Submit Report	Jun-2018
Prepare draft of NBEO Review & Linkage Study Report Prepare, print and submit final report	