Summer 2023 Psychometric Internship Announcement

Internship Opportunity

The American Board of Internal Medicine is pleased to announce the return of its summer psychometric internship program for 2023. The ABIM psychometric internship program is an eight-week summer internship running from Monday, June 5th to Friday, July 28th in Philadelphia*. During the program, each intern will take primary ownership of an applied psychometric research project under the guidance of one of the ABIM's psychometricians. In addition, the internship curriculum includes instructional lectures and opportunities for the interns to gain applied operational experience. As ABIM is the nation's largest physician certification organization, interns will gain experience with issues unique to professional testing organizations.

Qualifications

- Doctoral student in an educational measurement (or related field) program with at least two years of coursework completed by the start of the internship
- Preference will be given to applicants who have experience with item response theory
- Ideal candidates will have experience with programming in SAS or R
- Excellent communication skills
- Interest in certification testing
- Eligible to be legally employed in the United States

Stipend

The ABIM provides a total of $12,000 for the eight-week internship program. This total includes an $10,000 stipend as well as a $2,000 housing allowance†.

Research Project

For their primary research project, each intern should expect to perform all stages of the research process, from literature review to discussion and dissemination of results. At the conclusion of the program, interns will be expected to share their results by giving a brief presentation to an audience of psychometric staff. Further, the intern will be encouraged to submit their summer project for presentation at a professional conference and/or for publication. Each intern will work with their mentor to select an appropriate project for their experience level and interests. Examples of **previously completed** internship projects can be found on the next page.

Application

Please submit your curriculum vitae and a letter of interest to Michele Johnson, Research Program Manager (researchintern@abim.org) by Tuesday, January 31st, 2023.

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* If necessary for health and safety reasons, the ABIM summer internship will be conducted remotely. ABIM will communicate with candidates about such decisions in the spring.

† If the internship is conducted remotely, interns will not receive the housing allowance.

- **The Impact of Compromised Anchor and Non-Anchor Items on Equating Results.** The project examined the extent to which compromised anchor and non-anchor items affect the equating process and undermine the validity of score interpretations. The intern designed and conducted a simulation study evaluating the effects of compromised items on scaling coefficients and equated scores across different proportions of cheating examinees and compromised anchor and non-anchor items.
  Wan, S., & Myers, A. Paper submitted to NCME 2023.

- **The Effect of Patient-Physician Gender Concordance on Item Performance.** The purpose of this project was to determine how patient-physician gender concordance affects physicians' clinical practice, using exam item performance as a proxy for clinical practice. The intern designed an applied study that leveraged a hierarchical logistic regression model to investigate if female and male physicians performed differently on either female-patient or male-patient items, controlling for physician ability.
  Tian, C., & Rewley, K. Paper presented at NCME 2022.

- **Anchor Item Replacement in the Presence of Consequential Item Parameter Drift.** The purpose of this project was to develop evidence-based recommendations for replacing anchor items when a significant number are flagged for exhibiting item parameter drift. The intern conducted a simulation study that investigated different item replacement strategies, and examined the effects of each strategy with respect to outcomes such as pass/fail classification accuracy and RSMD of thetas.
  Chang, K., & Rewley, K. Paper presented at NCME 2021.

- **Evaluating Use of an Online Open-Book Resource in a High Stakes Credentialing Exam.** This project examined item and examinee characteristics associated with the use of an open-book resource throughout a high-stakes medical certification exam. Using exam process data and a generalized estimation equations modeling framework, the intern examined use of the open-book resource and how it might affect examinees' test-taking experience and performance.
  Myers, A. & Bashkov B. Paper presented at NCME 2020.

- **Investigating the Impact of Parameter Instability on IRT Proficiency Estimation.** This project examined how poorly estimated item parameters impact different proficiency estimators. The intern conducted a simulation study to examine how different levels of parameter instability impact Bayesian vs. non-Bayesian estimators as well as pattern vs. summed-score estimators.
  McGrath, K. & Smiley, W. Paper presented at NCME 2019.

- **Using Data Visualization to Explore Test Speededness in Certification Exams.** This project examined different ways to determine if a test is speeded. The intern conducted a thorough literature review of methods used to detect and quantify test speededness. She then used data visualization, a nonparametric tool that does not have any data assumptions, to examine operational test data for speededness. This was shown to be a viable approach to assessing the impact of examination timing.
  Sullivan, M. & Bashkov, B. Paper presented at TIME 2017.