

# Summer 2024 Psychometric Internship Announcement

## **Internship Opportunity**

The American Board of Internal Medicine is pleased to announce its summer psychometric internship program for 2024. The ABIM psychometric internship program is an eight-week summer internship running from Monday, June 3<sup>rd</sup> to Friday, July 26<sup>th</sup> 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 Monday, February 5, 2024.

- 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 presented at 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 openbook 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.



The American Board of Internal Medicine and ABIM Foundation offices are located in Philadelphia, PA (locally known as "Philly"), in the Society Hill neighborhood just south of the historic Independence Hall. Philadelphia is known for its rich history, cultural attractions, and educational institutions. The city has a diverse range of neighborhoods, from historic districts to modern urban areas.

# AROUND ABIM OFFICES

The ABIM offices are surrounded by a historic district with cobblestone streets and well-preserved colonial-era buildings, creating a charming atmosphere that transports visitors back in time. The area is rich in American history, featuring landmarks like the Liberty Bell, museums, and green spaces, making it a popular destination for both tourists and locals alike.



Explore the relaxed side of Philly – where green spaces and leisurely strolls come together for a laid-back city experience.

- Washington Square Park
- Independence Square Park
- Penn's Landing
- Race Street Pier
- South Street
- Love Park
- Pennsylvania Convention Center
- Franklin Square



Savor the taste of Philly's diverse dining scene – from cozy neighborhood spots to trendy eateries.

- PJ Clark's
- Talula's Daily
- Positano Coast
- Buddakan
- LaScala's
- Knead Bagel
- Frieda
- Reading Terminal Market



Immerse yourself in Philly's rich history by exploring its vibrant museums and visiting iconic landmarks.

- Independence Hall
- Liberty Bell
- National Constitution Center
- Weitzman National Museum of American Jewish History
- Jewelers Row
- Walnut Street Theatre
- Old City