

## Medical Social Sciences

### Northwestern University Feinberg School of Medicine Chicago, Illinois

#### Research Faculty Position: **Applied Psychometrician**

##### **Overview**

The [Department of Medical Social Sciences](#) (MSS), Feinberg School of Medicine, Northwestern University invites applications for research faculty candidates with strong skills in psychometric analysis. The Department provides a unique scientific home for applied researchers who integrate biomedical and social science approaches to improvement of health and health care delivery across the lifespan ([www.mss.northwestern.edu](http://www.mss.northwestern.edu)). MSS provides rich resources for conducting research including a broad scientific portfolio with multiple, large scale datasets across the lifespan, biostatistical and health informatics cores, expertise in assessment methods and collaborative relationships across Northwestern's biomedical and life sciences campuses. In particular, MSS and its [Center on Patient-Centered Outcomes](#) within the Institute for Public Health & Medicine has an extensive array of funded research focused on patient-centered outcomes research including outcomes measurement, psychometrics, quality of life, symptom management, and comparative effectiveness research.

We are seeking candidates at the assistant or associate level whose research focuses on the applications of psychometric methods or who are interested in applying a range of psychometric techniques to health outcomes measurement. This position will be on Northwestern University's [research faculty \(non-tenure\) track](#). The ideal candidate will have expertise in item response theory (IRT) and/or the development of computer adaptive tests (CAT). Research projects will emphasize measurement and evaluation of patient reported outcomes (PROs), the use of IRT and CAT for the assessment of health and functioning, as well as a wide range of traditional analytic methods. While the position is primarily focused on applied research, the department is also committed to developing and incorporating recent or novel statistical models arising out of practical problems. *We are interested in candidates who have experience with statistical consultation or management in a variety of contexts (e.g., multiple departments in academia, industry, or healthcare settings). Excellent communication skills are a must.*

##### **Project Role**

The position will support instrument development and validation activities by conducting quantitative analyses, including exploratory and confirmatory factor analyses, IRT calibration, and linking (scale alignment), data harmonization, and DIF analyses. The candidate may also be asked to provide analysis to support instrument validation and implementation, such as establishing minimally important differences, intervention recovery trajectories, cut-score standard setting, and meaningful change. Most analyses will focus on patient-reported outcome data on health domains (both physical and mental), as well as cognitive performance tests. The candidate will work on a portfolio of grant-funded projects supporting most of his/her salary.

##### **PROMIS and NIH Toolbox**

The candidate will work on several grant-funded projects that are extensions of the NIH-funded initiatives, such as Patient Reported Outcomes Measurement Information System (PROMIS) and the NIH Toolbox. PROMIS is a large, multi-institutional cooperative group of researchers around the U.S. who have been working for over 10 years to develop a set of novel, rigorously developed patient-reported measures of health status designed to standardize measurement across a range of chronic conditions. The NIH Toolbox for the Assessment of Neurological Behavior and Function is a comprehensive set of neuro-

behavioral measurements that quickly assess cognitive, emotional, sensory, and motor functions from an iPad. The NIH Toolbox measures were developed by a team of more than 300 scientists from nearly 100 academic institutions as part of the NIH Blueprint for Neuroscience Research.

### **Grant-funded Projects**

MSS faculty maintain a funding portfolio that is diverse with respect to population and disease focus. The candidate will be funded under projects that are suited to his/her experience and expertise, including but not limited to National Institutes of Health (NIH) Environmental influences on Child Health Outcomes (ECHO) Program (MPI: Gershon, R. and Cella, D.) and projects in the area of cognitive aging. The candidate is expected to provide psychometric/analytic support, explanation, and direction on these projects. The candidate will be encouraged to contribute to additional grant applications and seek independent funding, but is not required to submit future grants applications as PI.

### **Qualifications**

This position is open to individuals who have completed a Ph.D. program in psychology, sociology, education, or health science. Candidates should have experience with quantitative analysis of social science data and a strong record of scholarly publication. Experience with IRT analysis, CAT, and health outcomes research is strongly preferred, but we will consider applications of candidates with other strengths, such as such expertise in different areas (e.g., SEM or longitudinal data analysis), experience in statistical consultation, or management of analysts. Candidates with experience in educational testing are encouraged to apply. Salary and rank will be commensurate with experience and credentials. This is a full time continuing position.

Interested applicants should contact:

Richard Gershon, Ph.D., c/o Marcella Clark

Department of Medical Social Sciences Northwestern University, Feinberg School of Medicine

[mss@northwestern.edu](mailto:mss@northwestern.edu)

Applications will be evaluated on a rolling basis until the position is filled.

Send by e-mail the following: 1) a letter of interest including professional goals and areas of research interest; 2) a curriculum vita; 3) names and contact information for 4 references, and 4) representative reprints of publications or submitted manuscripts.

In the subject line of the e-mail please include, "**Applied Psychometrics - Faculty.**"

Final candidates will be interviewed by phone or in person and will be required to produce 4 letters of recommendation. For junior candidates, the work contract will be contingent upon receiving a letter from the Ph.D. program's director stating that all requirements for the Ph.D. have been successfully completed.

*Northwestern University is an Equal Opportunity, Affirmative Action Employer of all protected classes, including veterans and individuals with disabilities. Women and minorities are encouraged to apply. Hiring is contingent upon eligibility to work in the United States.*