

Expert Measurement and Analytic Support

Rich technical expertise and deep bench strength allow HumRRO to formulate unique and creative approaches to thorny measurement challenges. Using sophisticated statistical procedures, our methodologists address a myriad of policy and research questions for a broad range of clients. Our technical solutions coupled with a deep understanding of the environment, constraints, and vision of our client organizations allow us to work in partnership to create effective programs and assessments, along with meaningful action items.

Supporting Decision-making with Human Capital Data

Senior leaders demand ready access to information about factors that drive business success. In response, we developed an innovative, automated, interactive tool that produces human capital metrics that leaders can use to inform critical business decisions. The tool integrates three types of extant software packages (general statistical, structural equation modeling, and spreadsheet) to conduct requisite analyses while providing a graphical interface for the user. HumRRO staff are well-versed in identifying the appropriate analyses, given the questions organizational leaders are seeking to answer. We also offer targeted insight to leaders to help facilitate effective actions in light of the analytic results.

Matching People to Jobs

In this dynamic economy, many people are seeking new career opportunities — either out of necessity or to enhance their careers. We have developed an intricate algorithm that serves as the foundation for career exploration tools that link people to occupations in the U.S. economy. Using personal characteristics such as personality traits, interests, and work styles, we applied

statistical techniques such as latent class analysis, cluster analysis, and profile matching equations to effectively match people to jobs. Ultimately, this tool enhances one's ability to conduct directed job searches and identify realistic career opportunities to explore.



Creating Computerized Adaptive Tests

Personnel testing can be quite valuable to organizations, but testing time is at a premium. Computerized adaptive tests (CATs) offer a powerful approach to effectively and efficiently determine an individual's ability by using a statistical algorithm to select and present only the specific test items required for assessment. HumRRO has developed CATs for over thirty years, including supporting the CAT version of the Armed Services Vocational Aptitude Battery (CAT-ASVAB) for the Department of Defense and creating online adaptive tests for use as personnel screens for two Fortune 50 companies.

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Our work extends to multi-stage testing (MST) designs for use with passage-based items. Given this background, we offer the quantitative expertise needed to develop a valid adaptive test, as well as the computer-based platform and CAT engine for delivering these types of assessments.

Ensuring Accuracy in Educational Testing Programs

For nearly two decades, school systems throughout the United States have been required to administer annual state-wide tests of student achievement to inform decisions about school and student success. The complexity of the testing programs and the associated high-stakes decision-making processes lead these testing programs to exist in a contentious environment that leaves no room for anything but the highest standard of excellence. HumRRO's psychometric experts have carved out a role as the nation's quality assurance vendor of choice. Over the last two decades, we have verified psychometric computations and validated students' state test scores for programs in over two dozen states. In addition, we scale and equate 150 tests that impact over 15 million students a year.



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Visit **HumRRO.org** for additional information about all our services.

HumRRO was established in 1951 and is an independent, nonprofit corporation dedicated to the development and application of state-of-the-art scientific principles and technologies to solve the real-world challenges facing private and public sector organizations and educational institutions. Our professional staff is composed of psychologists with diverse expertise in: personnel selection, classification, and promotion; education assessment and accountability; strategic human capital management; program evaluation and policy analysis; employee development and training; credentialing; modeling and simulation; and survey research. Our client base includes the military, government agencies, private industry, and professional associations. HumRRO is an industry leader in working collaboratively with clients to create customized, best-practice solutions.