



Luz Bay, Ph.D.
Senior Psychometrician
The College Board

RELEVANT PROFESSIONAL EXPERIENCE AND ACCOMPLISHMENTS:

Luz Bay, Ph.D. is currently a Senior Psychometrician at The College Board. In this position, she is the point-person for the Psychometric department for all work related to ACCUPLACER® and is the lead for most projects in support of the assessment program including validity studies. Dr. Bay provided technical leadership in the development of the Next-Generation ACCUPLACER as well as the Texas Success Initiative Assessment 2.0.

QUALIFICATION HIGHLIGHTS	
◆	Over 27 years as a psychometrician and leader in the educational assessment industry
◆	Seven years of NAEP experience, 13 years of state assessment experience (K-12), and seven years experience in higher education
◆	Revolutionized standard setting by computerizing two popular standard setting methods through the implementation of CAB and BoWTIE
◆	Provided technical leadership in developing two computer-adaptive testing (CAT) programs

In a previous position, Dr. Bay led the team at Measured Progress to assist the National Assessment Governing Board (NAGB) in setting achievement levels for the National Assessment of Educational Progress (NAEP) in Writing for grades 8 and 12 and conducting a judgmental standard setting study on grade 12 academic preparedness in reading and mathematics. For these two projects for NAGB, Dr. Bay provided vision and guidance in the development of cutting edge technology for computer-based implementation of popular standard setting methods. The Computer-Aided Bookmarking (CAB) was successfully launched in the spring of 2011 and the Body-of-Work Technological Integration and Enhancements (BoWTIE) was used to set the achievement levels for NAEP writing in grades 8 and 12. NAGB adopted the achievement levels in May 2012 and released BoWTIE and CAB publicly in June 2014. Both CAB and BoWTIE are retrievable through the following links: <https://nagb.gov/focus-areas/reports/cab.html> and <https://nagb.gov/focus-areas/reports/bowtie.html>

Prior to this work, Dr. Bay led the Data Services and Score Reporting department as an assistant vice-president where she oversaw all the work related to data processing, data analysis, report design, and data quality assurance of assessment results, as well as report design and the production of technical reports. During her tenure in this position, Measured Progress has gained a reputation for data integrity and reporting accurate results. In this role she also provided psychometric expertise and support for the application of quantitative methodologies to state assessment contracts and developed methods to conduct quality assurance. Her career at Measured Progress is an extensive history of leadership, having moved quickly from Senior Psychometrician to Manager of Research and Analysis, to Assistant Director of Research and Analysis, to Director of Research and Analysis, and finally to Assistant Vice President.

Before joining Measured Progress, Dr. Bay was a psychometrician in the Research Division at ACT, Inc. for five years. She served as the assistant project director for the National Assessment of Educational Progress (NAEP) Achievement Levels-Setting (ALS) Project for the National Assessment Governing Board (NAGB). She was involved in both the operational and research aspects of setting achievement levels for the 1994 NAEP in geography and U.S. History; the 1996 NAEP in science; and the 1998 NAEP in civics and writing, which included an extensive research agenda that was her primary responsibility. In addition to her involvement in the research and operational aspects of the project, she has also been a facilitator during the achievement levels-

setting meetings and in charge of training other facilitators. She has also written numerous reports presented to the NAEP Technical Advisory Committee on Standard Setting (TACSS) on results of research studies related to the NAEP standard setting process. In her previous position, she played a major role in conceptualizing, designing, and implementing research studies for the NAEP ALS project.

Dr. Bay keeps her knowledge and skills current by actively participating in the measurement community through presenting research studies at conferences, including the annual meetings of the American Educational Research Association (AERA) and the National Council for Measurement in Education (NCME) and the National Conference on Student Assessment. Dr. Bay was a member of the Board of Trustees of the Psychometric Society and the NCME Board.

PROFESSIONAL BACKGROUND

- 2021; Senior Director for ACCUPLACER and CLEP Psychometrics; The College Board, New York, NY
- 2013–2020; Senior Psychometrician; The College Board, New York, NY
- 2010–2013; Assistant Vice President; Client Services; Measured Progress, Inc., Dover, NH
- 2009–2010; Assistant Vice President; Data Services & Score Reporting; Measured Progress, Inc., Dover, NH
- 2005–2009; Director, Research and Analysis; Measured Progress, Inc., Dover, NH
- 2004–2005; Assistant Director; Research and Analysis; Measured Progress, Inc., Dover, NH
- 2001–2003; Manager; Research and Analysis; Measured Progress, Inc., Dover, NH
- 1999–2000; Senior Psychometrician; Measured Progress, Inc., Dover, NH
- 1993–1998; Assistant Project Director and Psychometrician I; ACT, Inc., Iowa City, IA
- 1993; Intern; Measurement Research Department; ACT, Inc., Iowa City, IA
- 1991; Intern; College-Level Examination Program (CLEP); Educational Testing Service (ETS)
- 1985–1986; Mathematics Instructor; Institute of Mathematical Sciences and Physics; University of the Philippines Los Baños, Los Baños, Philippines

SUMMARY OF EXPERTISE AND RELEVANT EXPERIENCE

- Operational Management
 - Assistant Vice President for Data Services and Score Reporting -- oversaw all the work related to data processing, data analysis, report design, and data quality assurance of assessment results, as well as report design and the production of technical reports
 - Director, Assistant Director, and Manager of Data Processing and Analysis – standardized all procedures resulting in data integrity and reporting of accurate assessment results
- Psychometrics
 - Lead psychometrician for [ACCUPLACER](#)[®] and Texas Success Initiative Assessment 2.0
 - Lead psychometrician for large scale K-12 assessment contracts including Massachusetts Comprehensive Assessment System (MCAS), Maine Educational Assessment (MEA), and Wyoming Comprehensive Assessment System (WyCAS).
 - Provided psychometric expertise and support to alternate assessment contracts including New York State Alternate Assessment (NYSAA), Florida Alternate Assessment, and Maine Personalized Alternate Assessment Portfolio (MainePAAP).
- Project Management
 - Project Director for NAGB’s 2011 NAEP Writing in Grades 8 and 12 Achievement Levels Setting Project

- Project Co-Director for NAGB’s Judgmental Standard Setting for Academic Preparedness
- Assistant Project Director for NAGB’s Achievement Levels-Setting Projects for NAEP 1994 U.S. History and Geography, 1996 Science, 1998 Writing and Civics
- Research Management
 - Founder, Chair, Program Chair of American Educational Research Association (AERA) Special Interest Group (SIG) on Large-Scale Assessment
 - Program Chair for AERA Division D
 - Chair of National Council for Measurement in Education (NCME) Training Program; piloted international webcasts
 - Member of the Executive Committee and Board of Trustees as Treasurer and Secretary of the Psychometric Society
 - Member of the NCME Board of Directors
 - Chair of the NCME Social Media Task Force
 - Organizer of multiple AERA and NCME symposia over the years
 - Chair and member of multiple AERA-D and NCME committees including membership committees and program committees

RELATED PUBLICATIONS AND PRESENTATIONS

- Bay, L., & Ackerman, T. (2021). Early efforts. In Bunch, M. & Clause, B. (Eds.). *The History of Educational Measurement: Key Advancements in Theory, Policy, and Practice*. New York: Routledge.
- Bay, L., & Duffy, L. (2020). *Texas Success Initiative Assessment 2.0 standard setting report: An online implementation*. New York, NY: College Board.
- Chuah, S.C., Hare, D., Bay, L., & Proctor, T. (2020). Automated test assembly: Case studies in classical test theory and item response theory. In Jiao, H. & Lissitz, R.W. (Eds.). *Application of artificial intelligence to assessment* (pp. 125-140). Charlotte, NC: Information Age Publishing.
- Bay, L., Mccullough, J., & Montgomery, M. (2019). *Effects of compromised items in computer-adaptive tests: A retrospective study*. International Association for Computerized Adaptive Testing, Minneapolis, MN.
- Bay, L., Mccullough, J., & Montgomery, M. (2019). *Effects of compromised items in computer-adaptive tests: Providing guidance for future assessments*. Innovations in Testing U.S. Conference, Orlando, FL.
- Bay, L., Mccullough, J., & Montgomery, M. (2018). *Effects of compromised items in computer-adaptive tests: A retrospective study*. Conference on Test Security, Park City, UT.
- Wan, L., Bay, L., & Morgan, D. (2017). *Validity evidence for the performance profile standard-setting method*. National Council on Measurement in Education, San Antonio, TX.
- Bay, L. (2016). State of the art standard setting for state of the art assessment. In Lissitz, R. W., & Jiao, H. (Eds.). *The next generation of testing: Common core standards, Smarter-Balanced, PARCC, and the nationwide testing movement*. Charlotte: Information Age Publishing Inc.
- Bay, L. (2016). *The making of next-generation ACCUPLACER®*. ACCUPLACER and CLEP National Conference, Las Vegas, NV.
- Bay, L. (2016). *Setting the odds: Understanding CLEP scores and standard setting process*. ACCUPLACER® and CLEP National Conference, Las Vegas, NV.
- Bay, L. (2014). *Setting cut scores on multiple-choice tests*. ACCUPLACER® National Conference, Indianapolis, IN.
- Bay, L. & Tsai, C. (2014). *Steps taken to ensure fairness in ACCUPLACER® tests*. ACCUPLACER® National Conference, Indianapolis, IN.

- Bay, L. & Loomis, S.C. (2014). *Investigating the validity of the 2011 NAEP writing cut scores*. National Council on Measurement in Education, Philadelphia, PA.
- Bay, L. (2013). *Setting Achievement Levels For The 2011 NAEP Writing: Technological enhancements*. National Conference on Student Assessment, National Harbor, MD. (Retrieval from <https://ccsso.confex.com/ccsso/2013/webprogram/Session3686.html>)
- Bay, L. (2013). *State of the art standard setting for state of the art assessments*. Maryland Assessment Conference, College Park, MD. (Retrieval from <http://marces.org/conference/commoncore/agenda.html>)
- Bay, L. (2013). *Computer-based standard setting*. Association of Test Publishers Innovations in Testing, Ft. Lauderdale, FL.
- Bay, L. (2012). *Developing achievement levels on the 2011 National Assessment of Educational Progress in grades 8 and 12 writing: Process report*. Dover, NH: Measured Progress. (Retrieval from <https://nagb.gov/content/nagb/assets/documents/publications/achievement/developing-achievement-levels-2011-naep-grade8-grade12-writing-process-report.pdf>)
- Bay, L. (2012). *Developing achievement levels on the 2011 National Assessment of Educational Progress in grades 8 and 12 writing: Technical report*. Dover, NH: Measured Progress. (Retrieval from <https://nagb.gov/content/nagb/assets/documents/publications/achievement/developing-achievement-levels-2011-naep-grade8-grade12-writing-technical-report.pdf>)
- Bay, L.G. & Loomis, S.C. (2012). *Computerized standard setting workshop*. Northeastern Educational Research Association, Rocky Hill, CT.
- Bay, L. G. (2012). *Preparing job trainers to describe knowledge, skills, and abilities measured in an academic assessment: A commentary on Computer-Aided Bookmarking (CAB)*. National Council on Measurement in Education, Vancouver, Canada. (Retrieval from <https://nagb.gov/content/nagb/assets/documents/what-we-do/preparedness-research/judgmental-standard-setting-studies/paper-preparing-job-trainers-to-describe-knowledge-skills-and-abilities-measured-in-an-academic-assessment.pdf>)
- Bay, L. G. (2012). *Educational testing around the world*. National Council on Measurement in Education, Vancouver, Canada.
- Bay, L. G. (2011). *A Symposium on NAEP grade 12 preparedness judgmental standard setting*. National Conference on Student Assessment, Orlando, FL.
- Bay, L. G. (2010). Book review of *Standard Setting: A guide to establishing and evaluating performance standards on test* by Gregory J. Cizek and Michael B. Bunch. *Journal of Educational Measurement*, 47(4).
- Bay, L. G. (2010). *Are you being served? Operational difficulties in serving real and perceived needs of state assessment clients*. National Council for Measurement in Education, Denver, CO.
- Bay, L. G., Haley, K. D., & Ickes K. (2009). *Level of complexity: a study on composite scores in a portfolio type alternate assessment*. Annual Meeting of the National Council on Measurement in Education, San Diego, CA
- Bay, L. G. (2009). *Test security issues*. National Council on Measurement in Education, San Diego, CA.
- Bay, L. G., Haley, K. D., & Burton, E. (2008). *When push comes to shove: modified performance profile procedure as viable alternative to body of work standard setting method*. National Council on Measurement in Education Annual Meeting, New York, NY.
- Bay, L. G. (2007). *Diversity issues and testing: choosing a career in testing and measurement*. National Council for Measurement in Education, Chicago, IL.
- Bay, L. G. (2005). *When the gap is not fashionable: Performance gap issues*. American Educational Research Association, Montreal, Canada.

- Bay, L. G. (2003). *Putting large-scale assessment in perspective: the ideal role of large-scale assessment in K-12 education*. American Educational Research Association, Chicago, IL.
- Nering, M. L., Bay, L. G., & Meijer, R. R. (2002). Identifying pattern markers in a large-scale assessment program. *Measurement and Evaluation in Counseling and Development*, 35, 182-194.
- Kingston, N. K., Kahl, S. K., Sweeney, K. P., & Bay, L. G. (2001) Setting performance standards using the body of work method. In Cizek, G. J. (Ed.). *Setting performance standards: concepts, methods, and perspectives*.
- Bay, L. G. (2001). *Challenges to state assessment programs*. American Educational Research Association, Seattle, WA.
- Bay, L. G. (2001). *Psychometric challenges to state assessments*. National Council for Measurement in Education, Seattle, WA.
- Bay, L. G. *Second annual invited address and business meetings*. Special Interest Group in Large-Scale Assessment (SIG-LSA) of the American Educational Research Association, Seattle, WA.
- Bay, L. G. (2000). Book review of cheating on tests: how to do it, detect it, and prevent it by Gregory J. Cizek. *Measurement and Evaluation in Counseling and Development*, 33(2), 120-124.
- Bay, L. G. (2000). *1998 NAEP writing achievement levels setting process performance profiles study*. National Council for Measurement in Education, New Orleans, LA.
- Bay, L. G. (2000). *A toast to large-scale assessment: cocktails and conversations*. Special Interest Group in Large-Scale Assessment (SIG-LSA) of the American Educational Research Association, New Orleans, LA.
- Nering, M. L., Bay, L. G., & Meijer, R. R. (2000). *Validity of student scores in the New Hampshire Educational Assessment and Improvement program*. American Educational Research Association, New Orleans, LA.
- Nering, M. L., & Bay, L. G. (2000). *Pattern based aberrant-response patterns*. New England Educational Research Organization Annual Meeting, Portsmouth, NH.
- Bay, L. G. (2000). *Student scores in state, national, and international assessments: experiences and perspectives*. American Educational Research Association, New Orleans, LA.
- Bay, L. G. (2000). *Standards and standard setting methods used in different states*. National Council for Measurement in Education, New Orleans, LA.
- Bay, L. G., & Hanson, B. A. (1997). *Computing achievement levels cutpoints from NAEP booklet classification studies: a secondary analysis*. 1998 NAEP Achievement Levels-Setting Project Technical Advisory Committee for Standard Setting (TACSS), St. Louis, MO.
- Bay, L. G. et al. (1997). *ACT's NAEP redesign project: assessment design is the key to useful and stable assessment results*. NCES Working Paper Series 97-30, U.S. Department of Education, Washington, DC.
- Kane, M. T., & Bay, L. G. (1996). *The intersection of score interpretation, assessment design, and standard-setting methodology on NAEP*. National Council on Measurement in Education, New York, NY.
- Bay, L. G. (1996). Standard Setting Facilitator, 1996 NAEP Science Achievement Levels-Setting Process, Phoenix, AZ.
- Bay, L. G. (1995). *Detection of copying on multiple-choice examinations*. American Educational Research Association, San Francisco, CA.
- Bay, L. G., Loomis, S. C., & Wang, T. (1995). *Scoring with nominal missing-response parameters: its effects on achievement levels set on the NAEP*. American Educational Research Association Annual Meeting, San Francisco, CA.
- Bay, L. G. & Loomis, S. C. (1995). *Validation of the 1994 NAEP achievement levels: booklet classification study*. National Conference on Large Scale Assessment, Phoenix, AZ.

- Loomis, S. C. & Bay, L. G. (1995). *Student performance on the 1994 NAEP: geography achievement levels*. National Council for Geographic Education Annual Meeting, San Antonio, TX.
- Reckase, M. D., Loomis, S. C., Wang, T., & Bay, L. G. (1995). *Setting standards on NAEP performance items*. American Educational Research Association and the National Council of Measurement in Education Annual Meeting, San Francisco, CA.
- Elmore, P. B., Lewis, E. L., & Bay, L. G. (1993). *Statistics achievement: a function of attitudes and related experiences*. American Educational Research Association, Atlanta, GA.
- Bay, L. G. (1991). *Test validation*. Mid-Western Educational Research Association Annual Meeting, Chicago, IL.

EDUCATION/DEGREES

- Ph.D., Educational Measurement and Statistics, Southern Illinois University Carbondale, Carbondale, IL
- M.S., Mathematics, Southern Illinois University Carbondale, Carbondale, IL
- B.S., Mathematics, University of the Philippines Los Baños, Los Baños, Philippines
- Philippine Science High School (Main Campus), Quezon City, Philippines

RELEVANT ASSOCIATIONS AND PROFESSIONAL DISTINCTIONS

- National Council on Measurement in Education (NCME) Member
 - Board Member (2015-2018)
 - Chair, Digital Presence Task Force (2016-2017)
 - Co-chair, Social Media Task Force (2015-2016)
 - Training and Professional Development Committee Chair (2009–2010)
 - Member of Multiple Committees (1994—2019)
- Psychometric Society Treasurer (2007—2014), Secretary (2014—2016) and Member of the Board of Trustees and the Executive Committee (2007–2016)
- American Educational Research Association (AERA)
 - Program Co-chair of the American Educational Research Association (AERA) Division D (2005)
 - Co-founder, Chair (1999–2007), Program Chair (1999–2004, 2006–07), and Executive Committee Member (2008) of the AERA Special Interest Group in Large-Scale Assessment
- Smarter Balanced Assessment Consortium Achievement Levels Setting Design Advisory Panel
- Reviewer for the Journal of Educational Measurement (2004–present)
- Member of the National Science Foundation’s Fostering Interdisciplinary Research in Education (FIRE) Review Panel (2010)
- Reviewer for the NAEP Secondary Analysis Grants (2000–03)
- Reviewer for the 1998 NAEP Technical Report Adjudication
- Reviewer for Measurement and Evaluation for Counseling and Development
- Reviewer for Educational Measurement: Issues and Practice
- Member of of the American Psychological Association (Division 5)

COMMUNITY SERVICE & CIVIC ENGAGEMENT

- Delegate to the Democratic National Convention (August 17-21, 2020)
- Member, New Hampshire Democratic Party Platform Committee (2022 & 2020)
- Member, New Hampshire Democratic Party State Committee (2020-2023)
- Member, City of Dover NH Committee for Racial Equity and Inclusion (Appointed November 2020)
- Treasurer, New Hampshire Democratic Party Asian American Pacific Islander (AAPI) Caucus

- Strafford County New Hampshire Register of Probate (2021-2022)
- State of New Hampshire Justice of the Peace (through November 18, 2025)
- Member, Task Force on Building a Blue Hampshire (2021)
- Dover NH Democratic Committee Program Chair (2017-2020)
- Member, Wentworth-Douglass Hospital and Health Foundation Event Committee (2012—2013)
- Advisory School Board Member, Saint Mary Academy, Dover, NH (2007—2013)
- Member, Principal Search Committee, Saint Mary Academy, Dover, NH (2010 & 2012)

REFERENCES

Available upon request.