



Luz Bay, Ph.D.
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QUALIFICATION HIGHLIGHTS

- ◆ Over thirty (31) 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 over 11 years of 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

RELEVANT PROFESSIONAL EXPERIENCE AND ACCOMPLISHMENTS:

Luz Bay, Ph.D. is a seasoned leader in educational measurement, most recently serving as Senior Director of Psychometrics at the College Board. There, she led a team of psychometricians and research statisticians responsible for the psychometric integrity of ACCUPLACER® and CLEP. Dr. Bay provided technical leadership in the development of the Next-Generation ACCUPLACER and the Texas Success Initiative Assessment 2.0, and played a key leadership role in transitioning the psychometric work for CLEP from external vendors to a fully in-house operation—strengthening consistency, oversight, and innovation in test development.

Previously, Dr. Bay led the team at Measured Progress in supporting the National Assessment Governing Board (NAGB) on achievement levels-setting for NAEP Writing (grades 8 and 12) and on a standard setting study for grade 12 academic preparedness in reading and mathematics. She was instrumental in conceptualizing and launching innovative, computer-based methods for standard setting, including Computer-Aided Bookmarking (CAB) and Body-of-Work Technological Integration and Enhancements (BoWTIE). These tools were adopted by NAGB and released to the public in 2014.

At Measured Progress, Dr. Bay also served as Assistant Vice President of Data Services and Score Reporting, overseeing data processing, analysis, reporting, and quality assurance for state assessments. Her leadership progression at Measured Progress reflects a robust history of contributions—from Senior Psychometrician to Assistant Vice President.

Earlier in her career, Dr. Bay spent five years as a psychometrician at ACT, Inc., where she served as assistant project director for the NAEP Achievement Levels-Setting (ALS) Project. She played a key role in both research and operations for multiple NAEP subjects and trained facilitators in the ALS process.

Dr. Bay remains active in the measurement community, mentoring early-career professionals and presenting research at national conferences such as AERA, NCME, and the National Conference on Student Assessment. She has served on the Board of Trustees of the Psychometric Society and the NCME Board.

In 2022, Dr. Bay was elected to the New Hampshire House of Representatives, making history as the first psychometrician to serve in a legislative body. She was reelected in 2024 and continues to advocate for fairness, integrity, and equity in both education and public service.

As a Philippine-born psychometrician, she gives back to her country by serving as Senior Advisor to FrontLearners, Inc., an ed-tech social enterprise that empowers under-resourced schools in the Philippines through technology-enhanced education programs and blended learning solutions.

PROFESSIONAL BACKGROUND

- 2021 – 2025; Senior Director of Psychometrics for CLEP and ACCUPLACER Psychometrics and Research (CAPR); College Board, New York, NY
- 2013– 2020; Senior Psychometrician; College Board, New York, NY
- 2016 – Present; Senior Advisor; FrontLearners, Inc., Philippines
- 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

RELATED PUBLICATIONS AND PRESENTATIONS

- Gui, Y., Chen, J., & Bay, L. (2025). *A Python-based automated test assembly (ATA) system*. Innovation Demonstrated at the Annual Meeting of the National Council on Measurement in Education (NCME), Denver, CO.
- Chen, J. & Bay, L. (2024) *The predictive placement validity study of Texas Success Initiative Assessment 2.0 (TSIA2)*. New York, NY: College Board.
- Bay, L. & Chen, J. (2024). *Standard Setting for Computer Adaptive Tests*. Paper presented at the conference of the International Association of Computer Adaptive Testing (IACAT), Seoul, Korea.
- Gorney, K., Chen, J., & Bay, L. (2024). The impact of generating model on preknowledge detection in CAT. In M. Wiberg, J.-S. Kim, H. Hwang, H. Wu, & T. Sweet (Eds.), *Quantitative psychology: The 88th annual meeting of the Psychometric Society, College Park, MD, 2023*. Springer.
- Bay, L., Ge, Y., & Kim, Y.K. (2024). *CLEP German language standard setting report: Video-based standard setting*. New York, NY: College Board.
- Bay, L., Ge, Y., & Kim, Y.K. (2023). *CLEP Humanities standard setting report: Video-based standard setting*. New York, NY: College Board.
- Bay, L., Ge, Y., & Kim, Y.K. (2023). *CLEP Financial Accounting standard setting report: Video-based standard setting*. New York, NY: College Board.
- Bay, L., & Duffy, L. (2023). *A video-based implementation of the bookmark method for a college placement testing program*. Paper presented at the 88th International Meeting of the Psychometric Society (IMPS), College Park, MD.
- Chen, J., Gorney, K., & Bay, L. (2023). *The Impact of Generating Model on Preknowledge Detection in CAT*, poster presented at the 88th International Meeting of the Psychometric Society (IMPS), College Park, MD.
- Kim, Y.K., Moses, T. & Bay, L. (2023, April). *Impact of Scaling on Automated Essay Scoring*. Paper presented at annual meeting of the National Council on Measurement in Education, Chicago, IL.
- Bay, L., & Ackerman, T. (2022). Early efforts. In Bunch, M. & Clauser, B. (Eds.). *The History of Educational Measurement: Key Advancements in Theory, Policy, and Practice*. New York: Routledge.
- Chen, J., Gorney, K., & Bay, L. (2022). *Item preknowledge detection in CAT with the impact of preknowledge varying across persons and/or items*. Poster Presented in the 2022 Conference of Test Security (COTS).
- Bay, L., & Olgar, S. (2022). *Setting Florida college placement policies using ACCUPLACER®*. College Board Forum, Orlando, FL.
- Bay, L., Chen, J., Liao, C., & Tsai, C. (2022). *Standard setting for ACCUPLACER® ESL Reading Skills, Language Use, Sentence Meaning, Listening and WritePlacer ESL: Arriving at proposed academic ESL benchmarks for the City University of New York*. New York, NY: College Board.
- Bay, L., & Chen, J. (2022). *Standard setting report for ACCUPLACER® Quantitative Analysis and Statistics (QAS), Reading, and Writing: Setting college placement cut scores for Florida colleges*.

New York, NY: College Board.

- 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.
- Bay, L. (2013). *State of the art standard setting for state of the art assessments*. Maryland Assessment Conference, College Park, MD.
- 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. (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). *Standards and standard setting methods used in different states*. National Council for Measurement in Education, New Orleans, LA.

- 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.

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, Social Media Committee (2023)
 - 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—2009)
- 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 (2000–2003)

- Reviewer for the 1998 NAEP Technical Report Adjudication
- Reviewer for Measurement and Evaluation for Counseling and Development
- Reviewer for Educational Measurement: Issues and Practice

COMMUNITY SERVICE & CIVIC ENGAGEMENT

- Delegate to the Democratic National Convention (2024 & 2020)
- Member, 168th and 169th Sessions of the New Hampshire House of Representatives (2023-2026)
- Member, Strafford County Committee on Ending Homelessness (2023)
- Member, New Hampshire Democratic Party Platform Committee (2024, 2022, & 2020)
- Member, New Hampshire Democratic Party State Committee (2020-Present)
- Member, City of Dover NH Ad-hoc Committee for Racial Equity and Inclusion (2020-2023)
- New Hampshire Democratic Party Asian American Pacific Islander (AAPI) Caucus
 - Co-chair (2025-Present)
 - Treasurer (2022-2025)
- 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, 2025)
- 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

Edward H. Haertel, Ph.D.

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