

Biographical Sketch: Lawrence M. Lesser

a. Professional Preparation

Bachelor of Arts in Mathematics and in Mathematical Sciences, Rice University, 1986

Master of Science in Statistics, University of Texas at Austin, 1989

Doctor of Philosophy in Mathematics Education, University of Texas at Austin, 1994

b. Appointments

Associate Professor, University of Texas at El Paso, 2004 – present

Full-time mathematics teacher and department chair, Emery HS, 2002-2004

Associate Professor, Armstrong Atlantic State University, 1999-2004

Assistant Professor, University of Northern Colorado, 1994-1999

Lecturer, St. Edward's University, 1990-1993

Instructor, Southwestern University, 1992

Statistician, Texas Legislative Council, 1990-1991

Lecturer/Coordinator/Assistant Instructor, University of Texas at Austin, 1988-1990

c. Selected Publications (out of 40+ peer-reviewed/refereed papers)

Lesser, L. & Winsor, M. (exp. 2009) paper conditionally accepted in *Statistics Education Research J.*

Lesser, L. (accepted). A Deeper Classroom Investigation of Central Tendency. *Mathematics Teacher*

Lesser, L. (2009). 4 of 23 chapters in Freeman math-for-liberal-arts text *For All Practical Purposes, 8e*

Tchoshanov, M., Lesser, L., & Salazar, J. (2008). Teacher Knowledge and Student Achievement:

Revealing Patterns. *Journal of Mathematics Education Leadership, 10(2)*, 38-48.

Kosheleva, O.; Lesser, L.; Munter, J.; Trillo, S. (2008). Parent Power Nights: A Vehicle for Engaging Adults/Families in Learning Mathematics. *Adults Learning Mathematics Int'l. J.*, 3(2b), 36-52.

Lesser, L. & Pearl, D. (2008). Functional Fun in Statistics Teaching: Resources, Research & Recommendations. *J. of Statistics Education, 16(3)*, 1-11. www.amstat.org/publications/jse/v16n3/lesser.pdf

Lesser, L. (2008) Equity, Social Justice, and the Mission of TODOS. *Noticias de TODOS, 4(2)*, 7-9.

Lesser, L. (2008). Reunion of Broken Parts: Experiencing Diversity in Algebra. In P.C. Elliot and C. M. E. Garnett (Eds.), *Getting into the Mathematics Conversation: Valuing Communication in Mathematics Classrooms*, pp. 99-107. Reston, VA: National Council of Teachers of Mathematics.

Lesser, L. & Melgoza, L. (2007). Simple Numbers: ANOVA Example of Facilitating Student Learning in Statistics. *Teaching Statistics, 29(3)*, 102-105.

Lesser, L. (2007). Critical Values and Transforming Data: Teaching Statistics with Social Justice. *Journal of Statistics Education, 15(1)*, 1-21. www.amstat.org/publications/jse/v15n1/lesser.pdf

Lesser, L. (2007). Using Graphing Calculators to Do Statistics. *Mathematics Teacher, 100 (5)*, 375-378.

Lesser, L. & Blake, S. (2006). Mathematical Power: Exploring Critical Pedagogy in Mathematics and Statistics. In C. Rossatto, R. L. Allen, & M. Pruyin (Eds.) *Re-inventing Critical Pedagogy: Widening the Circle of Anti-Oppression Education*, pp. 159-173. NY: Rowman & Littlefield.

Lesser, L. & Tchoshanov, M. (2006) Selecting Representations. *Texas Mathematics Teacher 53(2)*, 20-26.

Lesser, L. & Winsor, M. (2006). Interactive Representations of the Big Six Trigonometry Functions: Connections to Geometry and Language. *ON-Math: Online Journal of School Mathematics, 5(1)*.

Lesser, L. (2006) Book of Numbers: Exploring Jewish Mathematics and Culture at a Jewish High School. *Journal of Mathematics and Culture, 1(1)*, 8-31. www.ccd.rpi.edu/Eglash/nasgem/jmc/jmc.htm

Lesser, L. & Winsor, M. (2006). Emerging Strategies to Address Needs on the Border. *Noticias de TODOS, 2(1)*, 1-3. www.todos-math.org/todos.archive/noticias/Noticiasv2n1Spring2006.pdf

Lesser, L. with Rayas, E., Trujillo, G., Vargas, A., Velankar, Y. (2006). Teachers' Technology Class Continues Discussion of Pitfalls. *Mathematics Teacher, 99(5)*, 340-342.

Lesser, L. & Tchoshanov, M. (2005). The Effect of Representation and Representational Sequence on Students' Understanding. *Psychology of Mathematics Education-NA Proceedings* [7 pages].

Lesser, L. & Nordenhaug, E. (2004). Ethical Statistics and Statistical Ethics: Making an Interdisciplinary

- Module. *J. of Statistics Education*, 12(3). www.amstat.org/publications/jse/v12n3/lesser.html
- Lesser, L. (2004). Rounding Up Ideas for Celebrating Pi Day. *Texas Mathematics Teacher*, 51(2), 6-11.
- Lesser, L. (2001). Musical Means: Using Songs in Teaching Statistics. *Teaching Statistics*, 23(3), 81-85.
- Lesser, L. (2001). Representations of Reversal: An Exploration of Simpson's Paradox. In A. Cuoco & F. Curcio (Eds.), *The Roles of Representation in School Mathematics*, 129-145. Reston, VA: NCTM.
- Lesser, L. (2000). Sum of Songs: Making Mathematics Less Monotone! *Mathematics Teacher*, 93 (5), 372-7.
- Lesser, L. (1999). Making the Black Box Transparent. *Mathematics Teacher*, 92(9), 780-784.
- Lesser, L. (1999). Investigating the Role of Standards-Based Education in a Pre-Service Secondary Math Methods Course. In M.L. Powers & N.K. Hartley (Eds.), *Promoting Excellence in Teacher Preparation: Undergraduate Reforms in Mathematics and Science*, pp. 53-64. Ft. Collins: CSU.
- Lesser, L. (1999). Exploring the Birthday Problem with Spreadsheets. *Mathematics Teacher*, 92(5), 407-11
- Lesser, L. (1998). Technology-Rich Standards-Based Statistics: Improving Introductory Statistics at the College Level. *Technological Horizons in Education Journal*, 25(7), 54-57.
- Mayes, R. & Lesser, L. (1998). *ACT in Algebra: Applications, Concepts, and Technology in Learning Algebra* [college algebra text]. Burr Ridge, IL: McGraw-Hill.

d. Synergistic Activities

1. As A&S/COS faculty, I have team taught courses (with COE faculty) with/at partner schools and have served (up to level of Vice-Chair) as faculty representative on university partnership boards with area public schools, 1995 - present
2. Service on Eisenhower, Colorado Commission on Higher Education, Carnegie Foundation (Teachers for a New Era), NSF (e.g., MSP, CCLI), and DOE (Project ACE, Project LEAP-UP) grants
3. member of 8 dissertation and 8 masters thesis committees, including 2 and 4, resp., as (co)chair
4. helped develop several mathematics education graduate courses
5. co-Editor of TODOS' *Teaching for Excellence and Equity in Mathematics* (2009 – present), Associate Editor of ASA's *Journal of Statistics Education* (1995-1997, 2007- 2010) and NASGEM's *Journal of Mathematics and Culture* (2008 – present)
6. appointed service on national Research Advisory Board of CAUSE (Consortium for the Advancement of Undergraduate Statistics Education), 2005- 2009
7. program committee for state (CCTM), regional (MAA, WeSTCo, qualitative research seminar series), and national (US Conference on Teaching Statistics) conferences

Selected FUNDED projects

- PI of "Gap Analysis: A Study of the Nature and Strength of Alignment Between TEKS and CRS Documents and Generation of New Ways to Increase Degree of Alignment with High Interrater Reliability" grant funded by the Texas Higher Education Coordinating Board, 2008.
- PI and writing roles equally shared with M. Tchoshanov for "Improving Student Achievement in Mathematics Through Professional Development Partnership" grant funded by Texas Education Agency, \$132,380.00, 2005-07.
- Co-PI on three Texas Higher Education Coordinating Board Teacher Quality grants (with M. Tchoshanov or with O. Kosheleva, totalling \$254,304.00, 2006-present.
- Competitive subaward/consultant funding from grants (NSF, Carnegie Foundation, US Dept. of Ed., etc.) AASU's largest competitive faculty development award as the 2001 Arthur M. Gignilliat Jr. Professor.