RICHARD JOHN SWARTZ

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Rice University
P.O. Box 2932
Houston, TX 77252

ACADEMIC EXPERIENCE

Rice University, Jones Graduate School of Business, Houston, TX. July 2024 – present
Lecturer in Operations Management.

Rice University, Jones Graduate School of Business, Houston, TX. June 2010 – present
Senior Statistician, Research Support Group.

The University of Texas M. D. Anderson Cancer Center, Houston, TX. June 2005 – May 2010
Instructor, Department of Biostatistics.
Instructor, Department of Behavioral Science (joint appointment)

The University of Texas M. D. Anderson Cancer Center, Houston, TX. Jan. 2003 – May 2005
Postdoctoral Fellow, Department of Behavioral Science

EDUCATION

PhD Rice University, Houston, TX May 2003
Concentration: Statistics
Dissertation: "Applications of Bayesian Sequential Decision Theory to Medical Decision Making." *Advisors*: Dennis D. Cox, (Chair), David W. Scott, Devika Subramanian, Donald A. Berry, Scott B. Cantor, Michele Follen, and Rebecca Richards-Kortum. Developed new technique to characterize costs and losses implied by a given decision rule if the rule is to be optimal. Foundational work for Inverse Decision Theory.

MA Rice University, Houston, TX May 2002
Concentration: Statistics

BS Trinity University, San Antonio, TX May 1997
Mathematics, Graduated Cum Laude

BA Trinity University, San Antonio, TX May 1997
Psychology, Graduated Cum Laude

CURRENT COURSES

MGMT 595 – Data Analysis

PUBLICATIONS

Journal Publications

1. Green, Colby D., Schuler, Douglas A., Zavyalova, Anastasiya, Swartz, Richard J., Nault, Kristen, and Kazi, Asiya K.. 2023. "Stock Market Reactions to Firm Visits by Presidents of the United States: George H. W. Bush through Donald J. Trump." *Presidential Studies Quarterly* 1– 24. https://doi.org/10.1111/psq.12842

2. Mukherjee B, Srinivasan A, Bodurka DC, Christner JG, Swartz R, Bungo MW. The need for physician leadership education. *Physician Leadership Journal* 6(5) 50-57, 2019.

3. Weifel JS, Vidrine DJ, Marani SK, Swartz RJ, Veramonti TL, Meyers CA, Hoekstra HJ,Hoekstra-Weebers JEHM, Gritz ER. A prospective study of cognitive function in men with non-seminomatous germ cell tumors. *Psycho-Oncology* 23(6) 2014 626-633.

4. Winterich KP, Aquino K, Mittal V. Swartz R. When moral identity symbolization motivates prosocial behavior: The role of recognition and moral identity internalization. *Journal of Applied Psychology* 98(5) 2013 759-770

5. Swartz RJ, Baum GP, Askew RL, Palmer JL, Ross MI, Cormier JN. Reducing patient burden to the FACT-Melanoma quality of life questionnaire. *Melanoma Research*. 22(2) 2012. 158-163.

6. Parker PA, Swartz RS, Fellman B, Urbauer D, Li Y, Pisters LL, Rosser CJ, Wood CG, Matin SF. Comprehensive assessment of quality of life and psychosocial adjustment in patients with renal tumors undergoing open, laparoscopic and nephron-sparing surgery. *Journal of Urology* 187(3) 2012. 822-826.

7. Swartz RJ, Schwartz C, Basch E, Cai L, Fairclough DL, McLeod L, Mendoza T, Rapkin B, and SAMSI Psychometric Program Longitudinal Assessment of Patient-Reported Outcomes Working Group. The king's foot of patient-reported outcomes: current practices and new developments for the measurement of change. *Quality of Life Research* 20(8) 2011. 1159-1167.

8. Askew RL, Swartz RJ, Xing Y, Cantor SB, Ross MI, Gershenwald JE, Palmer JL, Lee JE, Cormier JN. Mapping FACT-Melanoma quality of life scores to EQ-5D health utility weights. *Value in Health.* 14(6) 2011. 900-906.

9. Sterba KR, Swartz RJ, Basen-Engquist K, Black PC, and Pettaway CA. Long-term quality of life after radical prostatectomy in wives of men in the postoperative adjuvant androgen deprivation trial. *Supportive Care in Cancer*. 19(8) 2011. 1117-24.

10. Shinn E, Swartz RJ, Thorton B, Spiess PE, Pisters L, and Basen-Engquist K. Testis cancer survivors health behaviors: comparison with age-matched relative and demographically-matched population controls. *Journal of Clinical Oncology*. 28 (13) 2010. 2274-2279.

11. Choi SW and Swartz RJ. Comparison of CAT Item Selection Criteria for Polytomous Items. *Applied Psychological Measurement* 33(6): 2009 419-440..

12. Davies KR, Cox DD, Swartz RJ, Cantor SB, Follen M. Inverse decision theory with applications to screening and diagnosis of cervical intraepithelial neoplasia. *Gynecologic Oncology* 107(1 Suppl 1):S187-95, 10/2007. e-Pub 9/2007.

13. Black PC, Basen-Engquist K, Wang X, Swartz RJ, Eddings T, Matin SF, Swanson D, Wood CG, Pisters LL, Babaian RJ, Troncoso P, Pettaway CA. A randomized prospective trial evaluating testosterone, haemoglobin kinetics and quality of life, during and after 12 months of androgen deprivation after prostatectomy: results from the Postoperative Adjuvant Androgen Deprivation trial. *British Journal of Urology International* 100(1):63-9, 7/2007.

14. Swartz RJ, de Moor C, Cook KF, Fouladi RT, Basen-Engquist K, Eng C, Carmack Taylor CL. Mode effects in the center for epidemiologic studies depression (CES-D) Scale: personal digital assistant vs. paper and pencil administration. *Quality of Life research* 16(5): 2007 803-13.

15. Swartz RJ, Cox DD, Cantor SB, Davies K, Follen M. Inverse decision theory: characterizing losses for a decision rule with applications in cervical cancer screening. *Journal of the American Statistical Association* 101(473):1-8, 2006.

16. Swartz RJ, West LA, Boiko I, Malpica A, Guillaud M, Macaulay C, Follen M, Atkinson EN, Cox DD. Classification using the cumulative log-odds in the quantitative pathologic diagnosis of adenocarcinoma of the cervix. *Gynecologic Oncology* 99(3 Suppl 1):S24-31, 2005.

17. Swartz R, West L, Boiko I, Malpica A, MacAulay C, Carraro A, Guillaud M, Cox D, Follen M. Use of nuclear morphometry characteristics to distinguish between normal and abnormal cervical glandular histologies. *Analytic Cellular Pathology* 25(4):193-200, 2003.

18. West LA, Swartz R, Cox D, Boiko IV, Malpica A, Macaulay C, Follen M. Cytometric features of cell nuclei of adenocarcinoma in situ and invasive adenocarcinoma of the cervix. *American Journal of Obstetrics and Gynecology* 187(6):1566-73, 12/2002.

19. Elliott MN, Swartz R, Adams J, Spritzer KL, Hays RD. Case-mix adjustment of the National CAHPS benchmarking data 1.0: a violation of model assumptions? *Health Services Research* 36(3):409-427, 2001.

Conference Papers/Online reports

1. Swartz R, West L, Boiko I, Malpica A, Guillaud M, Follen M, Cox D. Classifying populations from samples using quantitative pathology. Joint Statistical Meetings 2002, Biometrics Section, 2002.

2. Swartz RJ, Choi SW, and Herrick RC. Bayesian adaptive sequential item selection (BASIS): An optimal approach to item selection. *The University of Texas M. D. Anderson Cancer Center* Department of Biostatistics Working Paper Series, Paper 53, http://www.bepress.com/mdandersonbiostat/paper53

3. Swartz, RJ and Choi SW. (2009). A Burdened CAT: Incorporating Response Burden with Maximum Fisher's Information for Item Selection. In D. J. Weiss (Ed.), *Proceedings of the 2009 GMAC Conference on Computerized Adaptive Testing*. Retrieved from www.psych.umn.edu/psylabs/CATCentral/

PRESENTATIONS AND INVITED LECTURES

Invited

1. Precision vs. Burden Trade-off and Response Shift in CAT, SAMSI Summer Program in Psychometrics, Research Triangle Park, NC, 7/14/2009

2. Bayesian and Classical Computerized Adaptive Testing Item Selection Algorithms, SAMSI Summer Program in Psychometrics, Research Triangle Park, NC, 7/7/2009

3. Linking the stocking and lord way, Psychometrics Workshop, San Juan Islands, WA, 9/20/2004

Other, Including Scientific Exhibitions

1. Bayesian Adaptive Sequential Item Selection (BASIS): Applying Bayesian Decision Theory to Computerized Adaptive Testing, The University of Texas M. D. Anderson Cancer Center, Bayesian Biostatistics Conference, Houston, TX, 1/2010

2. A Greedy and Burdened CAT: A Method to Include Response Burden in the Minimum Expected Posterior Variance Item Selection Method for Computerized Adaptive Tests, 16th International Meeting of the Psychometric Society, Cambridge, United Kingdom, 7/24/2009

3. A Burdened CAT: Incorporating Response Burden with Maximum Fisher's Information for Item Selection, GMAC Conference on Computerized Adaptive Testing, Minneapolis, MN, 6/2/2009

4. Computerized Adaptive Testing Item Selection Procedures for Dichotomous Items - What Do We Lose by Being Greedy?, International Meeting of the Psychometric Society, Durham, NH,

6/30/2008

5. A repeated-measures design to investigate mode effects in the center for epidemiologic depression scale, Joint Statistical Meetings, Seattle, WA, 8/6/2006

6. Mode effects for the center for epidemiologic studies depression scale: personal digital assistants vs. paper and pencil, International Society for Quality of Life Research, San Francisco, CA, 10/2005

7. Using inverse decision theory to determine A C/B ratio for screening and diagnosis of cervical intraepithelial neoplasia (CIN), Public Health Decision Making 26th Annual Meeting, Atlanta, GA, 10/17/2004

8. Using regression and IRT models to detect CES-D mode effects: personal digital assistant vs. pencil and paper, Advances in Health Outcomes Measurement, Bethesda, MD, 6/23/2004

9. Inverse decision theory: inferring bounds on costs associated with a current standard of care, Joint Statistical Meetings, San Francisco, CA, 8/3/2003

10. Inverse Decision Theory: Characterizing Losses for an Established Decision Rule, 1st IMS-ISBA Joint Meetings, San Juan, Puerto Rico, 7/23/2003

11. Classifying populations from samples using quantitative pathology, Joint Statistical Meetings, New York, NY, 8/11/2002

12. An identification process using Bayesian sequential classification, 7th Valencia International Meeting on Bayesian Statistics, Tenerife, Spain, 6/2/2002

Seminar Invitations from Other Institutions

1. A Bayesian Decision Theoretic Approach for Item Selection in computerized adaptive testing to reduce respondent burden of patient reported outcome measures. University of North Texas, Denton, TX, 03/22/2010

2. Reducing respondent burden of patient reported outcome measures: the Bayesian Adaptive sequential item selection (BASIS) method for computerized adaptive testing. University of Texas School of Public Health, Houston TX, 2/18/2010

3. PROs, IRT and CATs, Oh My!, Houston Area Chapter of the American Statistical Association, Houston, TX, 11/14/2006

4. Case-mix adjustment of consumer reports about health plans, RAND Summer Intern Presentation, Santa Monica, CA, 8/9/1999

5. Patient reported outcomes, psychometrics and the (Bio) statistician's role, The University of Texas School of Public Health, Houston, TX, 10/10/2006

6. Invited speaker. Bounds on treatment costs for cervical neoplasia assuming optimality of the current standard of care, Biostatistical Workshop Series, The University of Texas M. D. Anderson Cancer Center, Houston, TX, 10/24/2002

7. Proposed item selection methods for computerized adaptive tests to monitor patient reported health outcomes, ETS-Princeton, Princeton, NJ, 7/5/2006

8. Bounds on treatment costs for cervical neoplasia assuming optimality of the current standard of care, Biometry Seminar Series, The University of Texas School of Public Health, Houston, TX, 3/25/2003

OTHER WORK EXPERIENCE

Independent Consultant, Houston, TX — June 2010 – June 2020

Rice University, Houston TX — Sept. 1999 – Dec. 2002
Graduate Research Assistant, Department of Statistics

Compubank, Houston TX — Jan. 2000 – Dec. 2000
SAS programming Consultant

Rice University, Houston TX — Sept. 1999 – Dec. 2002
Graduate Research Assistant, Department of Statistics

RAND, Santa Monica, CA — June 1999 – Aug. 1999
Summer Intern, Statistics Group

Rice University, Houston TX — Sept. 1998 – May 1999
Graduate Research Assistant, Department of Statistics

Rice University, Houston TX — June 1998 – Aug. 1998
Summer Intern, Department of Psychology

Rice University, Houston TX — June 1997 – Aug.1997
Research Intern, Rice Institute of Mathematical Sciences (RIMS)

Memorial Hospital Southwest, Houston TX — June 1997 – Aug.1997
Summer Intern, Psychiatric Wing

TEACHING EXPERIENCE

Rice University, Houston, TX — Sept. 2001 – Dec. 2001
Co-Instructor, Department of Statistics
- STAT 490/590: Fundamentals of SAS Programming.

Rice University, Houston, TX — Sept. 1997 – May 1998
Lab Assistant/Grader, Department of Statistics

Students Advised/Mentored

Co-Mentor, R25 Cancer Prevention Postdoctoral Fellowship Katherine R. Sterba, PhD, MPH. graduated 2008.

HONORS AND AWARDS

Jones Graduate School of Business Impact Award — 2015
Awarded for outstanding service to Stakeholders

Jones Graduate School of Business Gibbs Shield — 2014
Awarded for outstanding service to faculty and staff

American Statistical Association Chapter Service Award — 2008
Awarded for outstanding service to the chapter.

IMS-ISBA joint meeting Travel Award — 2003
Awarded for outstanding research abstract

Chairman Award to Graduate Students for Service to Department of Statistics — 2003

Awarded for outstanding service to department of Statistics at Rice University

Phi Beta Kappa 1997
Honor Fraternity, membership based on outstanding scholarship and required nomination by faculty member

Psi Chi 1995
Psychology Honor Fraternity, based on outstanding scholarship and required nomination by faculty member

Alpha Lambda Delta 1993
Honor Fraternity, based on outstanding scholarship during first year of college.

Bayesian Methods for a Longitudinal CAT 6/1/2005−5/31/2010
Grant number 5 K07 CA113641 05, awarded by NIH/NCI, $612,808 ($126,000/year). Principal Investigator. Developed novel computerized adaptive testing algorithm based on Bayesian Decision Theory. Learned simulation skills and programming packages specific to psychometrics and fitting Item Response Theory models.

NCI funded R25T Postdoctoral Training Fellowship 1/1/2003−5/31/2005
Competitive award. Project title: **Developing a Computerized Adaptive Test to Screen for Depression**, funded by 5 R25 CA057730 13, NIH/NCI, PI - Robert Chamberlain, Learned Item Response Theory modeling techniques, Differential Item Functioning techniques, general psychometrics and simulation techniques

PROFESSIONAL TRAINING/CERTIFICATIONS

Growth Modeling with Latent Variables Using Mplus: Introductory and Intermediate Growth Models
Johns Hopkins Bloomberg School of Public Health, Baltimore MD, Aug. 21-22 2008
Description: Covered basics of latent variable analysis for longitudinal modeling, as well as programming syntax for the MPLUS program
Description: Include a brief description, if necessary.

Mixed Models Analysis Workshop
The University of Texas M.D. Anderson Cancer Center, Houston, TX, Nov. 2-5, 2005
Description: covered theory of Mixed Models Analysis for longitudinal and repeated data. Programming syntax examples in SAS.

Licensed Facilitator - License, More to Life Foundation, 2000
Licensed to teach courses in self-esteem enhancement (Power of Self-Esteem) and personal effectiveness (People on Purpose).

Generalized Linear and Nonlinear Models for Clustered data and Repeated Measurements
Joint Statistical Meetings, San Francisco, CA, Aug. 8, 2003
Description: covered theory of Mixed Models and Nonlinear Mixed Models Analysis for longitudinal and repeated data.

PROFESSIONAL SERVICE

Symposium Co-Organizer

1. Psychometric Society, 73rd Annual International Meeting of the Psychometric Society, Durham, NH, Session Chair, 6/2008

2. Psychometric Society, 16th Annual Meeting of the Psychometric Society, Cambridge, United Kingdom, Session Chair, 7/2009

3. Statistics and Applied Mathematical Sciences Institute Summer Program in Psychometrics, Research Triangle Park, NC, Organizing Committee Member and Working Group Chair, 7/2009

Peer-Reviewed Articles for:

1. Quality of Life Research
2. Psychiatry Research

PROFESSIONAL AFFILIATIONS/ SERVICE

National and International

American Statistical Association
Member, 2003−present

The Psychometrics Society
Member, 2003−present

American Psychological Association
Member, 2003−2010

Institute of Mathematical Statistics
Member, 2003−2010

International Society of Bayesian Analysis
Member, 2003−2010

National Council on Measurement in Education
Member, 2003−2010

Local/State

Houston Area Chapter of the American Statistical Association
Member, 2000−present
Secretary, 2004−2007

Institutional

The University of Texas M. D. Anderson Cancer Center

Postdoctoral Association, Chair and Chair of Executive Steering Committee	2003 – 2005
Postdoctoral Advisory Committee, member	2000 − 2008

COMMUNITY SERVICE

Volunteer for The More to Life Foundation

a. Regularly volunteer for management roles to support weekend trainings in Houston TX. Since 1989.

b. More To Life Houston Area Coordinator for Mastery Classes and Enrichment Groups, October 2011 – August 2022: Coordinate Enrichment Courses and Mastery Classes in the greater Houston Area.

c. **Enrichment Group Facilitator, October 2011 - Present.** Facilitate and lead a 6 week course called Facilitated Enrichment Groups for More To Life Foundation.
d. **Mastery Facilitator, November 2013 - Present.** Facilitate and Lead Mastery Classes, a second 6 week course, for More To Life Foundation.
e. **More To Life Houston Executive Committee,**
f. **Secretary and member International Council of Stewards**

LANGUAGES

English: Native Language

COMPUTER SKILLS

Programming: R, SAS, S-plus, Matlab Mplus, Stata,
Applications: Excel, Word, PowerPoint
Platforms: Windows 7, MAC, UNIX

OTHER

U.S. Citizen