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VITA

Lawrence D. Brown Date of Birth: 12/16/40

Education

B.S.	1961	California Institute of Technology
Ph.D.	1964	Cornell University

Positions

Miers Busch Professor, Department of Statistics, The Wharton School, University of Pennsylvania, 1994-present
Professor, Department of Mathematics, Cornell University, 1978-94
Professor, Department of Mathematics, Rutgers University, 1972-78
Associate Professor, Department of Mathematics, Cornell University, 1966-72
Assistant Professor, Department of Statistics, University of California at Berkeley, 1965-66

Honors, Fellowships, and Grants
NSF Graduate Fellowship (1961-64)
NAS-NRC, AFOSR Postdoctoral Fellow (1964-65)
NSF Summer research support (1965-)
Sloane Foundation Postdoctoral Fellow (1969-71)
Fellow of the Institute of Mathematical Statistics (I.M.S.)
and the American Statistical Association (A.S.A)
Wald Lecturer, Institute of Mathematical Statistics, August 1985
Lady Davis Professorship (Hebrew Univ., Jerusalem, 1988)
Member, National Academy of Sciences
Doctor of Science (Honorary), Purdue University, 1993
Recipient, Wilks Award of the American Statistical Association, 2002
C.R. and B. Rao Prize, 2007
The Provost's Award for Distinguished Ph.D. Teaching and Mentoring, Univ. of Pennsylvania, 2011
Member, American Academy of Arts and Sciences

Professional Activities

Member Institute of Mathematical Statistics, American Statistical Association and International Statistical Institute
Associate Editor, Annals of Statistics (1970-80, 1983-94, 1999-2003)
Associate Editor, Annals of Probability (1985-88)
I.M.S. Committees: Publications (1975-78), Special Invited Papers (1989-1991), Selection of editors

(1990-91, 2000-2001), Representative to Conference Board on Mathematical Sciences (2012-13)
Member I.M.S. Council (1979-82)
Director, Cornell Statistics Center (1982-83, 1986-88, 1989-1993)
Member, Board on Mathematical Sciences of the National Research Council (=NRC) (1989-94)
President, I.M.S. (1992-93)
Member, Committee on Applied and Theoretical Statistics of the NRC (1994-1997)
Co-Editor, Annals of Statistics (1995-1998)
Member, NRC Commission on Physical Sciences, Mathematics, and Applications (1996-1999)
Member, Advisory Committee for the Hong Kong Institute of Mathematical Sciences (1996-1997)
Member, NSA Research Grant Review Panel (1997- 2001)
Testimony to U.S. Senate Governmental Affairs Committee concerning year 2000 U.S. Census (1997), and to U.S. House of Representatives Committee (1998)
Member, NSF Research Grant Pre-review Panel (1998, 2000, 2003)
Member, NRC Select Panel to Oversee the 2000 Census (1998-2004)
Member, NRC Committee on National Statistics (1999-2005)
Section Head, NAS, Section 32 (Applied Mathematics, Probability and Statistics) (1999-2003)
Chairman, NRC Panel to Evaluate National Statistics on Research and Development (2003-2005)
Member, US National Committee on Mathematics (2004-2007)
Member, NRC Panel on Coverage Evaluation and Correlation Bias in the 2010 Census (2004-2008)
Member, Committee for the Division of Behavioral and Social Sciences and Education, NRC (2007-2010)
Chairman, NRC Panel to Evaluate Census Bureau Research Program ("CPEX") for 2010 Census (2007- 2010)
Member, NRC Report Review Committee (2009-2015)
Chair, NRC Committee on National Statistics (2010-
Associate Editor, Annual Review of Statistics (2012-

Ph.D. Thesis students (1970 - present):

F. Hsuan, J. O. Berger, T. Meyer, S. Groshen, H. Proskin, C. Gatsonis, I. M. Johnstone, A. Mandelbaum, M-S Chow, E. Greenshtein, M. G. Low, K. He, Y-L Tseng, T. Cai, Y. Lin, Y. Wang, S. Li, W. Mao, R. Zhang, Z. Zhao, H. Shen, M. Levins, X. Li, J. Weinberg, J. Xu, C. Nagaraja, X. Fu, X. Han, H. Nie, S. Aldor-Noiman, K. Zhang, J. Rodu, P. Ernst, E. Pitkin, A. Weinstein [Current PhD Students = D. McCarthy]

Visiting Positions:

Birkbeck College (London University) (1964-65), Technion (Haifa, Israel) (1981-82), Hebrew University (Jerusalem, Israel) (1983-85 and 1988-89), UCLA (1993-94), Peking University (2005-06), Chinese Academy of Sciences (Beijing) (2006).

Publications - Lawrence D. Brown

Books

(1985) Brown, L.D., Olkin, I., Sacks, J., and Wynn, H.P.. Jack Carl Kiefer Collected Papers, 3 vols., Springer-Verlag, New York.

(1986) Brown, L.D., Olkin, I., Sacks, J., and Wynn, H.P.. Jack Carl Kiefer Collected Papers Supplementary Volume, Springer-Verlag, New York.

(1986) Brown, L.D.. Fundamentals of Statistical Exponential Families with Applications in Statistical Decision Theory, Inst. of Math. Statist., Hayward, California.

(2005) Brown, L.D., Plewes, T.J., and Gerstein, M.A.. Measuring Research and Development in the United States Economy, National Academies Press (paperback, 194 pages)

(2010) National Research Council. Envisioning the 2020 Census. Panel on the Design of the 2020 Census Program of Evaluations and Experiments. Lawrence D. Brown, Michael L. Cohen, Daniel L. Cork, and Constance F. Citro, eds. Committee on National Statistics, Division of Behavioral and Social Sciences and Education. Washington, DC: National Academies Press

Research Articles

(1964) Brown, L.D. (1964). Sufficient statistics in the case of independent random variables, *Ann. Math. Statist.*, 35, 1456-1475.

(1965) Brown, L.D. (1965). Optimal policies for a sequential decision process, *J. Soc. Indust. Appl. Math.*, 13, 37-46.

(1966) Brown, L.D. (1966). On the admissibility of invariant estimators of one or more location parameters, *Ann. Math. Statist.*, 37, 1087-1136.

(1967) Brown, L.D. (1967). The conditional level of Student's t test, *Ann. Math. Statist.*, 38, 1068-1071.

(1968) Brown, L.D. (1968). Inadmissibility of the usual estimators of scale parameters in problems with unknown location and scale parameters, *Ann. Math. Statist.*, 39, 29-48.

(1971a) Brown, L.D. (1971). Non-local asymptotic optimality of appropriate likelihood ratio

tests, *Ann. Math. Statist.*, 42, 1206-1241.

(1971b) Brown, L.D. (1971). Admissible estimators, recurrent diffusions, and insoluble boundary value problems, *Ann. Math. Statist.*, 42, 855-904. See also correction in *Ann. Statist.*, 1, (1973) 594-596.

(1973) Brown, L.D. & Purves, R. (1973). Measurable selections of extrema, *Ann. Statist.*, 1, 902-912.

(1974a) Brown, L.D. & Fox, M. (1974). Admissibility in Statistical Problems Involving a Location or Scale Parameter, *Ann. Statist.*, 2, 807-814.

(1974b) Brown, L.D. & Fox, M. (1974). Admissibility of procedures in two dimensional location parameter problems, *Ann. Statist.*, 2, 248-266.

(1974c) Brown, L.D. & Cohen, A. (1974). Point and confidence estimation of a common mean and recovery of interblock information, *Ann. Statist.*, 2, 963-976.

(1975a) Brown, L.D. (1975). On a theorem of Morimoto concerning sufficiency for discrete distributions. *Ann. Statist.*, 3, 1180-1182.

(1975b) Brown, L.D. (1975). Estimation with incompletely specified loss functions (the case of several location parameters), *Jour. of Amer. Statist. Assoc.*, 70, 417-427.

(1976) Brown, L.D., Cohen, A. & Strawderman, W.E. (1976). A complete class theorem for strict monotone likelihood ratio with applications, *Ann. Statist.*, 4, 712-722.

(1977a) Brown, L.D. (1977). Closure theorems for sequential-design processes, *Statistical Decision Theory and Related Topics II*, Academic Press, Inc., 57-91.

(1977b) Berger, J., Bock, M.E., Brown, L.D., Casella, G. & Gleser, L. (1977). Minimax estimation of a normal mean vector for arbitrary quadratic loss and unknown covariance matrix, *Ann. Statist.*, 5, 763-771.

(1977c) Brown, L.D. (1977). "Comment" on Conditional confidence statements and confidence estimators, *Jour. Amer. Statist. Assoc.*, 72, 810-813.

(1978a) Brown, L.D. (1978). A contribution to Kiefer's theory of conditional confidence procedures, *Ann. Statist.*, 6, 59-71.

(1978b) Berk, R.H. & Brown, L.D. (1978). Sequential Bahadur Efficiency, *Ann. Statist.*, 6, 567-581.

(1979a) Brown, L.D. (1979). Counterexample -- an inadmissible estimator which is generalized Bayes for a prior with light tails, *Jour. Multiv. Anal.*, 9, 332-336.

(1979b) Brown, L.D. (1979). A heuristic method for determining admissibility of estimators -

- with application, *Ann. Statist.*, 7, 960-994.

(1979c) Brown, L.D., Cohen, A. & Strawderman, W.E. (1979). On the admissibility or inadmissibility of fixed sample size tests in a sequential setting, *Ann. Statist.*, 7, 569-579.

(1979d) Brown, L.D., Cohen, A. & Strawderman, W.E. (1979). Monotonicity of Bayes sequential tests, *Ann Statist.*, 7, 1222-1230.

(1979e) Brown, L.D. (1979). A proof that Kramer's multiple comparison procedure for differences between treatment means is level -α for 3, 4, or 5 treatments, Technical report, Statistics Center, Cornell University.

(1980a) Brown, L.D. (1980). A necessary condition for admissibility, *Ann. Statist.*, 8, 540-545.

(1980b) Brown, L.D. (1980). Examples of Berger's phenomenon in the estimation of independent normal means, *Ann. Statist.*, 8, 572-586.

(1980c) Brown, L.D., Cohen, A. & Strawderman, W.E. (1980). Complete classes for sequential tests of hypotheses, *Ann. Statist.*, 8, 377-398.

(1980d) Brown, L.D. & Doshi, B.T. (1980). Existence of optimal policies in stochastic dynamic programming, *Prob. and Math. Statist. (Poland)*, 1, 171-184.

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(1990c) Brown, L.D. (1990). An ancillarity paradox which appears in multiple linear regression (with discussion), *Ann. Statist.*, 18, 471-538.

(1990d) Brown, L.D. & Gajek, L. (1990). Information inequalities for the Bayes, *Ann. Statist.*, 18, 1578-1594.

(1990e) Brown, L.D. & Farrell, R.H. (1990). A lower bound for the risk in estimating the value of a probability density, *Jour. Amer. Statist. Assoc.*, 85, 1147-1154.

(1990f) Brown, L.D. & Hwang, J.T.G. (1990). Admissibility of confidence estimators, Tech. Report Cornell Statistics Center

(1990g) Alder, R.J., Brown, L.D. & Lu, K-L (1990). Tables for tests and confidence bands for bivariate cumulative distribution functions, Tech. Report Cornell Statistics Center.

(1990h) Brown, L.D. (1990). Comment on "Developments in decision theoretic variance estimation", *Statist. Sci.*, 5, 103-106.

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(1993b) Brown, L.D. & Liu, R.C. (1993). The asymptotic risk in a signal parameter estimation problem, *IEEE Trans. on Inf. Thry.*, 39, 254-257.

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(1996b) Brown, L.D. & Low, M.G. (1996). A constrained risk inequality with applications to nonparametric function estimation, *Ann. Statist*,. 24, 2524-2535.

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(1998a) Brown, L.D. (1998). Minimax Theory, entry in *Encyclopedia of Biostatistics*, eds. P. Armitage and T. Colton.

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