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CURRICULUM VITAE
THOMAS A. LOUIS, PhD

ADDRESS

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EDUCATION

1966 BA Dartmouth College, with honors in Mathematics
1972 PhD Columbia University, Mathematical Statistics

PROFESSIONAL EXPERIENCE

2002– Professor of Biostatistics, Johns Hopkins Bloomberg School of Public Health
2000–2002 Senior Statistical Scientist, The RAND Corporation
1987–2000 Professor of Biostatistics, U of Minnesota School of Public Health
1987–1999 Head of Biostatistics, U of Minnesota School of Public Health
1987–2000 Professor, U of Minnesota School of Statistics
1979–1987 Associate Professor of Biostatistics, Harvard School of Public Health
1973–1979 Assistant Professor of Mathematics, Boston University
1972–1973 NIH Postdoctoral Fellow, Mathematics, Imperial College, London
1971–1972 Lecturer, Department of Mathematical Statistics, Columbia U
1970–1971 Consultant, IBM Thomas J. Watson Research Lab., Yorktown Heights, NY
1966–1967 Actuarial Trainee, Chubb and Son, New York

OTHER POSITIONS

2001–2003 Adjunct Professor, Epidemiology & Biostatistics, George Washington U
2000–2002 Adjunct Professor, Biostatistics, Johns Hopkins Bloomberg SPH
1999 Visiting Scholar, Committee on National Statistics National Academy of Sciences
1995–1996 Visiting Professor, Afdeling Medische Statistiek, U of Leiden, NL
1994–2000 Member, U of Minnesota Cancer Center
1991–1998 Adjunct Associate, Hubert H. Humphrey Inst. of Public Affairs, U of Minnesota
1991–1996 Adjunct Professor, Biostatistics, Emory University School of Public Health
1988 Visiting Professor, Tongji Medical U, Wuhan Peoples Republic of China
1986 Visiting Scientist, Center for Mathematics and Computer Science, Amsterdam NL
1984 Visiting Professor, Biostatistics, U of North Carolina, Summer Term
1979–1981 Director, Biostatistics Consulting Laboratory, Harvard School of Public Health
1974–1979 Consultant, Boston University Medical School
1974–1979 Member of the Boston University Cancer Center
1969–1970 Summer Employee, IBM T. J. Watson Research Lab., Yorktown Heights, NY

HONORS AND AWARDS

- 1967–1971 Fellow of the Faculty, Columbia University
- 1985 International Statistical Institute
- 1988 Fellow of the American Statistical Association (ASA)
- 1988 Delta Omega Honorary Public Health Society
- 1992 President, International Biometric Society, Eastern North American Region (ENAR)
- 1996 Fellow of the American Association for the Advancement of Science (AAAS)
- 2003 ENAR President's Invited Address, "Aids to Statistical Navigation"
- 2005-2008 Vice President, President, Past President: International Biometric Society

PROFESSIONAL ACTIVITIES**Memberships**

- American Association for the Advancement of Science
- American Statistical Association
- Institute of Mathematical Statistics
- International Biometric Society
- International Environmetrics Society
- International Society for Bayesian Analysis
- International Statistical Institute
- Royal Statistical Society

Editorial

- 2009-2011 Co-editor, Biometrics
- 1997– Editorial Board, Chapman & Hall Series on Statistics and Applied Probability
- 1972– Refereeing for statistical, biomedical, epidemiologic and environmental journals
- 2006–2008 Coordinator, IBS Prose Editing Project
- 2004–2008 Editorial Board, Biostatistics
- 2003–2008 Editorial Board, Clinical Trials
- 2002 Co-editor, Formula Funds Allocation special issue, Journal of Official Statistics
- 2001–2003 Editor, J. Am. Statist. Assoc. (JASA), Applications and Case Studies & Coordinating Editor
- 1999–2002 Editorial Board, Applied Stochastic Models in Business and Industry
- 1999–2000 Associate Editor, Controlled Clinical Trials
- 1998–2000 Editor, Statistical Science
- 1996–1999 Associate Editor statistica neerlandica
- 1992–1998 Co-Editor, CHANCE
- 1993–1995 Editorial Board, ASA-SIAM Series on Statistics and Applied Probability
- 1989–1994 Editorial Board, Statistics in Medicine
- 1988–1991 Associate Editor, JASA Theory and Methods

Professional Organization Administration

- 2009-2010 Chair, International Biometric Society, Council of Presidents
- 2009-2010 IBS/ENAR Nominations Committee
- 2008 Outgoing vice-President, International Biometric Society
- 2007 Organizing & Scientific Programme Comm., East Asia Regional Biometric Conference, Tokyo
- 2006-2007 President, International Biometric Society
- 2005-2006 IBS/ENAR Nominations Committee
- 2005 Incoming vice-President, International Biometric Society
- 2004 Executive Committee, ASA Section on Bayesian Statistical Science
- 2002–2003 Chair-elect/chair, ASA Section on Bayesian Statistical Science
- 2002 Member, ENAR Educational Advisory Committee
- 2002 Associate Director, Search Committee, National Institute of Statistical Sciences
- 2002 Chair, Nomination Committee, National Institute of Statistical Sciences

Professional Organization Administration (continued)

- 2000–2001 Program Committee, Year 2001 International Statistical Institute Conference
- 2001–2002 Program Committee, Year 2002 Intl. Epidemiologic Association Conference
- 2001 ASA-IMS Task Force to select statistical reviewers for Science
- 2001 ENAR management review
- 2000 ENAR Nominating Committee
- 2000–2005 Member, ASA Scientific and Public Affairs Advisory Committee
- 2000–2002 Executive Committee, National Institute of Statistical Sciences
- 1999–2000 Program Committee, Year 2000 International Biometric Conference
- 1998–2000 ENAR Liaison to the ASA
- 1998 ENAR management review
- 1997–2002 Trustee, National Institute of Statistical Sciences (NISS)
- 1997–1989 Chair, Fellow Selection Committee, International Biometric Society
- 1988 Regional Committee, Biometric Society ENAR
- 1992 President, Biometric Society, ENAR
- 1991–1993 Executive Committee, Biometric Society ENAR
- 1993–1996 IMS, Committee on Scientific Policy
- 1993–1996 AAAS Electorate Nominating Committee
- 1991–1992 Committee of Presidents of Statistical Societies
- 1991 Advisory Board, NISS
- 1997 ASA search committee for new CHANCE editor
- 1994–1997 Council, International Biometric Society
- 1993 Chair, ASA Editor search committee, JASA Applications and Case Studies
- 1993 Chair, ASA Sub-committee to Evaluate Health Science Journal Options
- 1992 Nominating Committee, JASA book review editor
- 1993 Steering Comm., Research Synthesis: Social Science Informing Public Policy
- 1988 Program Chair, Intl. Biometrics Society-ENAR Spring Meeting, Boston MA
- 1978 Co-program chair, Intl. Biometrics Society-ENAR Spring Meeting, Chapel Hill, NC
- 1976 Local arrangements Comm. 9th Intl. Biometric Conference, Boston, MA
- 1976–1986 Program committee, Boston Chapter, ASA

Advisory

- 2009– Working Group on the role of the NIH Biostatistical Methods and Research Design study section
- 2009– External Advisory Committee, AV Fistula Maturation Cohort Study
- 2007– Board of Scientific Counselors, NIH-National Institute of Environmental Health Sciences
- 2007–2009 DSMB, VA Trial of Long-Acting Injectable Risperidone in the Treatment of Schizophrenia
- 2006– Scientific Advisory Committee, EPA/Harvard Center on Ambient Particle Health Effects
- 2006– DSMB, MK-0518 HIV Integrase Phase III Program (Merck)
- 2004– DSMB, Right Ventricular Pacing Study (Medtronic)
- 2006–2009 NAS Standing Committee on Risk Analysis Issues and Reviews
- 1985– Report Review, National Academy of Sciences
- 1975– Proposal review, NSF, NIH and other funding agencies
- 2009 Proposal review, International Science and Technology Center in the Ukraine
- 2008 NAS Review Coordinator, “Phthalates and Cumulative Risk Assessment: The Tasks Ahead”
- 2008 Consultant, U of Wisconsin chair search, Dept. of Biostatistics and Medical Informatics
- 2006–2008 DSMB, Preventing Pregnancy Malaria: Mother Infant outcomes study (NIH-NIAID)
- 2005–2008 NAS Committee on Applied and Theoretical Statistics
- 2007 Review Panel, Ixabepilone for treatment of metastatic breast cancer (Bristol, Myers, Squibb)
- 2005 Selection Committee, JASA Applications and Coordinating Editor for 2007-9
- 2004–2006 NAS Committee to Review the Effects of Changes in EPA’s New Source Review Programs for Stationary Sources of Air Pollutants

Advisory (continued)

- 2004 *Ad hoc* consultant, Board of Scientific Councilors review of the NIEHS Biostatistics Branch
- 2004 NIH Clinical Infectious Diseases and Microbiology, Research & Field Studies Special Study Section
- 2003–2004 Advisor, masters program in Biometrics, UMDNJ
- 2003–2004 Drinking Water Committee, EPA Science Advisory Board
- 2003 Input to IOM report, “Measuring What Matters: Allocation, Planning, and Quality Assessment for the Ryan White CARE Act”
- 2003 Review of the MS in Biostatistics, U of Medicine & Dentistry of NJ, SPH
- 2003 Committee to review Biostatistics at the U of Washington
- 2002–2004 NAS, Committee on use of third party toxicity research with human participants
- 2002–2003 Panel to review guidelines for thrombolysis treatment of acute ischemic stroke
- 2002 Chair, Committee to review Biostatistics at Emory U
- 2001–2008 DSMB, Dialysis Access Consortium (NIH-NIDDK)
- 2001–2002 NIH ad hoc group to promote increased funding for training in Biostatistics
- 2001 Committee to propose a statistics editor for Science magazine
- 2001 Advisory committee, Program in Environmental Statistics, Biostatistics, Harvard SPH
- 2001 Proposal reviewer, VA studies on Persian Gulf Illness
- 2000–2005 Health Review Committee, Health Effects Institute
- 2000–2004 Advisory Committee, Harvard Cardiac Vulnerability Related to Particulate Matter Project
- 2000–2004 Scientific Advisory Committee, EPA/Harvard Center on Ambient Particle Health Effects
- 2000–2003 Advisory Board, Center for Innovation in Clinical Research, M.D. Anderson CC
- 2000–2003 Steering Committee, United States Renal Data System
- 2000–2003 Diesel Emissions Project Committee, Health Effects Institute
- 2000–2002 Chair, NAS panel on Formula Allocation of Federal and State Program Funds
- 2000 Panelist, NIH Consensus Conference on Adjuvant Therapy for Breast Cancer
- 1999 Chair, Review Comm., Dept. of Social and Preventive Medicine, SUNY Buffalo
- 1998–2004 Chair, DSMB, Chemoprevention of Skin Cancers with DFMO Clinical Trial
- 1998 NIH Special Emphasis Panel Proposal Review
- 1997–1999 Oversight comm., HEI, National Morbidity and Mortality Air Pollution Study
- 1997 Chair, NIAID proposal review panel, Statistical Center for the Womens Interagency Health Study
- 1997 Advisory panel, U Chicago Dept. OB/GYN, issues in stopping a clinical trial
- 1997–2003 NAS, Committee on National Statistics
- 1996–2003 Advisory Board, Institute of Medicine (IOM), Medical Follow-up Agency
- 1996–1999 NAS, Panel on Estimates of Poverty for Small Geographic Areas
- 1996 Organizational Review, U of Chicago, Department of Health Studies
- 1995 NCI site visit, Fred Hutchinson Cancer Research Center, Seattle Washington
- 1995 UCLA Visiting Committee on reorganizing statistics
- 1995 Visiting Committee, Cleveland Clinic Dept. of Epidemiology and Biostatistics
- 1994–1996 IOM/MFUA Comm. to Review the Health Consequences of Service during the Persian Gulf War
- 1994–1995 Reviewer, EPA Particulate Matter and Mortality Criterion Document
- 1993–1997 DSMB, Long-term outcome of Obesity Treatment in Minority Women Study
- 1991 Reviewer, NIAID/DAIDS, ACTG re-competition
- 1988–1990 AHCPH Health Care Technology Study Section
- 1987–1993 Advisory Committee for Research Synthesis, The Russell Sage Foundation
- 1984–1988 EPA Health Effects Scientific Review Panel
- 1981–1983 Advisory Committee, Kidney Transplant and Histocompatibility Study
- 1975–1983 Site visitor, National Cancer Institute

UNIVERSITY SERVICE*Johns Hopkins University* (Bloomberg School of Public Health unless otherwise indicated)

- 2009–2010 Committee to review the Department of Environmental Health Sciences
- 2008– SPH Committee on Academic Standards
- 2008– HopkinsOne, University-wide, Faculty Advisory Committee
- 2006– Performance Review Committee, Environmental Health Sciences, NIEHS Training Program
- 2002– Steering Committee, Malaria Research Institute
- 2008–2009 Medical School Investigative Committee
- 2008–2009 Chair, Biostatistics Faculty Search Committee
- 2007–2008 Strategic Planning Steering Committee
- 2005–2008 SPH Advisory Board
- 2005–2008 Faculty Senate: President-elect, President, past President
- 2004–2006 Sommer Scholar selection committee
- 2004–2005 Chair, Faculty Grievance Committee
- 2003–2008 Committee on Appointments and Promotions
- 2003–2005 Faculty Senator
- 2003–2004 Planning committee, FDA/Johns Hopkins workshop, “Can Bayesian approaches to studying new treatments improve regulatory decision-making?”
- 2002–2004 FDA/Hopkins Liaison Development
- 2002–2004 Biostatistics Faculty Search Screening Committee
- 2002–2003 Co-chair, Biostatistics seminar committee

University of Minnesota School of Public Health

- 2000 Dean Search Committee, School of Public Health (SPH)
- 1999–2000 Ethics Advisory Committee
- 1998–1999 Presidents Distinguished Faculty Mentors Program
- 1997–1998 Academic Health Center faculty research development grants review committee
- 1996–1997 Search Committee, Health Sciences Chief Information Officer
- 1994–1998 SPH Diversity Committee
- 1994–1995 SPH Diversity Committee, Co-chair
- 1994–1995 Chair, MPH Major in Biostatistics
- 1994 Search Committee, Director, Cancer Center Registry
- 1994 Ad Hoc committee to investigate misconduct
- 1993–1996 Faculty Advisor, Sailing Club
- 1992–1994 Chair, Search Committee, Head, Center for Environmental Health Policy, SPH
- 1992 Chair, Biostatistician Search Committee, General Clinical Research Center
- 1991 Search Committee, Population Sciences faculty, Humphrey Institute
- 1990–1999 SPH Space Committee
- 1990 Search committee, SPH Dean
- 1989–1990 Chair, Search Committee, Head of Epidemiology, SPH
- 1988–1993 Academic Advisory Committee, Center for Biomedical Ethics
- 1988–1990 Chair, Center for Biomedical Ethics
- 1987–2000 Advisory Committee, General Clinical Research Center
- 1987–1999 SPH Policy Council

Harvard School of Public Health

- 1980–1984 Qualifying examination committee
- 1980–1981 Institutional Review Board

COMMUNITY SERVICE

- 1999–2000 Treasurer, L Harriet Yacht Club
 1995 Faculty Member, National Breast Cancer Coalition, Project LEAD
 1992–1995 Institutional Review Board, Allina Health System, Minneapolis, MN
 1984 Co-chair, School Enrollment Projection & Reorganization Comm., Lexington MA
 1975–1978 Faculty, Norfolk Prison Education Program, Norfolk MA

EDUCATIONAL ACTIVITIES

Courses: Probability theory, statistical theory, general statistical methods including Bayes, sequential analysis, analysis of longitudinal data, hierarchical models, multivariate analysis, analysis of discrete data, robust methods, screening and bioassay, exploratory data analysis, introductory and intermediate level statistics

Research Advising: Principal or co-advisor for 65 doctoral students and more than 40 masters students. Member of many doctoral and masters committees in Statistics, Biostatistics, Epidemiology, Environmental Health and Health Services.

INVITED PRESENTATIONS: More than 450.

PUBLICATIONS

(Journal Articles & Books, Journal Discussions, Monographs, Book Chapters, Proceedings, Book Reviews, Letters & Columns)

Journal Articles & Books

1. Flehinger BJ, Louis TA (1971). Sequential treatment allocation in clinical trials. *Biometrika*, 58: 419–426.
2. Flehinger BJ, Louis TA (1972). Sequential medical trials with data-dependent treatment allocation. *Proc. Sixth Berkeley Symposium*, 4: 43–52.
3. Flehinger BJ, Louis TA, Robbins H, Singer B (1972). Reducing the number of inferior treatments in clinical trials. *Proc. Nat. Acad. of Sci. US*, 69: 2993–94.
4. Hsi BP, Louis TA (1975). A modified play-the-winner rule for sequential trials. *J. Am. Statist. Assoc.*, 70: 644–647.
5. Louis TA (1975). Optimal allocation in sequential tests comparing the means of two Gaussian populations. *Biometrika*, 62: 359–369.
6. Louis TA (1977). Sequential allocation in clinical trials comparing two exponential survival curves. *Biometrics*, 33: 627–634.
7. Albert A, Gertman P, Louis TA (1978). Screening for the early detection of cancer I: The temporal natural history of a progressive disease state. *Mathematical Biosciences*, 40: 1–59.
8. Albert A, German P, Louis TA, Liu S (1978). Screening for the early detection of cancer II: The impact of screening on the natural history of disease. *Mathematical Biosciences*, 40: 61–109.
9. Louis TA, Albert A, Heghinian S (1978). Screening for the early detection of cancer III: Estimation of disease natural history. *Mathematical Biosciences*, 40: 111–144.
10. Louis TA (1981). Confidence intervals for a binomial parameter after observing no successes. *The American Statistician*, 35: 154.
11. Louis TA (1981). Nonparametric analysis of an accelerated failure time model. *Biometrika*, 68: 381–390.
12. Russell R et al. (1981). Unstable angina pectoris national cooperative study group to compare medical and surgical therapy IV: Results in patients with left anterior descending disease. *Am. J. Cardiology*, 48: 517–524.
13. Laird NM, Louis TA (1982). Approximate posterior distributions for incomplete data problems. *J. Roy. Statist. Soc. Ser. B*, 44: 190–200.

14. Louis TA (1982). Finding the observed information using the EM algorithm. *J. Roy. Statist. Soc. Ser. B*, 44: 226–233.
15. Louis TA, Mosteller FM, McPeck B (1982). Timely topics in statistical methods for clinical trials. *Ann. Rev. Biophys. & Bioeng.*, 11: 81–104.
16. Shapiro SH and Louis TA, eds. (1983). *Clinical Trials: Issues and Approaches*. Marcel Dekker, New York.
17. Louis TA, Shapiro SH (1983). Critical issues in the conduct and interpretation of clinical trials. *Ann. Rev. Public Health*, 4: 25–46.
18. Eisen EA, Wegman DE, Louis TA (1983). Effects of selection in a prospective study of forced expiratory volume in Vermont granite workers. *Am. Rev. Respir. Disease*, 128: 587–591.
19. Lavori P, Louis TA, Bailar JC, Polansky M (1983). Designs for clinical experiments: Parallel comparisons of treatment. *N. Engl. J. Med.*, 309: 1291–1298.
20. Louis TA (1983). Statistics in laboratory studies. *Lab Animal*, 12: 17–25.
21. Ware JH, Louis TA (1983). Statistical problems in environmental research. *Can. J. Statist.*, 11: 51–70.
22. Bailar JC, Louis TA, Lavori P, Polansky M (1984). Designs for clinical experiments: Studies without internal controls. *N. Engl. J. Med.*, 311: 156–162.
23. Eisen EA, Smith TA, Wegman DE, Louis TA, Froines J (1984). Estimation of long-term dust exposures in the Vermont granite sheds. *J. Am. Indust. Hygiene Assoc.*, 45: 89–94.
24. Louis TA (1984). Estimating a population of parameter values using Bayes and empirical Bayes methods. *J. Am. Statist. Assoc.*, 78: 393–398.
25. Louis TA, Lavori P, Bailar JC, Polansky M (1984). Crossover and self-controlled designs in clinical research. *N. Engl. J. Med.*, 310: 24–31.
26. Moses L, Louis TA (1984). Statistical consulting in clinical research: The two-way street. *Statist. in Med.*, 3: 1–5.
27. Bailar JC, Louis TA, Lavori P, Polansky M (1984). A classification for biomedical research reports. *N. Engl. J. Med.*, 311: 1482–1487.
28. Louis TA, Fineberg HV, Mosteller F (1985). Findings for public health from meta-analyses. *Ann. Rev. Pub. Health*, 6: 1–20.
29. Palmer RJ, Louis TA, Hsu LN, Peterson HF, Rothrock JK, Strain R, Thompson M, Wright EA (1985). A randomized controlled trial of quality assurance in sixteen ambulatory care practices. *Medical Care*, 23: 751–770.
30. Louis TA, Bouffieux C, Tazaki H, Acosta-Otero A, Khoury S, Kopp J, Mazeman E, Obata K, Tagnon H, Wittes RE (1986). Policy on monitoring and reporting results. *Prog Clin Biol Res.*, 221: 33–48.
31. Louis TA, Robins J, Dockery DW, Spiro R, Ware JH (1986). Explaining discrepancies between longitudinal and cross-sectional models. *J. Chron. Diseases*, 39: 831–839.
32. Laird NM, Louis TA (1987). Empirical Bayes confidence intervals based on bootstrap samples (with discussion). *J. Am. Statist. Assoc.*, 82: 739–757.
33. Louis TA (1988). General methods for analyzing repeated measures. *Statistics in Medicine*, 7: 29–45.
34. DeGruttola V, Ware JH, Louis TA (1987). Influence analysis on generalized least squares estimators. *J. Am. Statist. Assoc.*, 82: 911–917.
35. Knuiman MW, Laird NM, Louis TA (1987). Inter-laboratory variability in Ames assay results. *Mutation Research*, 180: 171–182.
36. Dockery DW, Speizer FF, Ferris BG Jr., Ware JH, Louis TA, Spiro A III (1988). Cumulative and reversible effects of lifetime smoking on simple tests of lung function in adults. *Am. Rev. Respir. Disease*, 137: 286–292.

37. Lagakos SW, Louis TA (1988). Use of tumor lethality to interpret carcinogenicity experiments lacking information on cause of death. *J. Roy. Statist. Soc. C*, 37: 169–179.
38. Manu P, Louis TA, Lane TJ, Gottlieb L, Engel P, Rippey RM (1988). Unfavorable outcomes of drug therapy: Subjective probability versus confidence intervals. *J. Clin. Pharm. and Therapeutics*, 13: 213–217.
39. Louis TA (1989). Analysis of a random sample of two-year carcinogen bioassays from the NCI data-base. *Fund. and Appl. Toxicology*, 12: 222–231.
40. Laird NM, Louis TA (1989). Bayes and empirical Bayes ranking methods. *J. Educational Statistics*, 14: 29–46.
41. Laird NM, Louis TA (1989). Empirical Bayes confidence intervals for a series of related experiments. *Biometrics*, 45: 481–495.
42. Berlin JA, Begg CB, Louis TA (1989). An assessment of publication bias using a sample of published clinical trials. *J. Am. Statist. Assoc.*, 84: 381–392.
43. Louis TA, Bailey JK (1990). Controlling error rates using prior information and marginal totals to select tumor sites. *J. Statistical Planning and Inference*, 24: 297–316.
44. Stryker WS, Stampfer MJ, Stein EA, Kaplan L, Louis TA, Sober A, Willett WC (1990). Diet, plasma levels of beta carotene and alpha tocopherol and risk of malignant melanoma. *Am. J. Epidemiology*, 131: 597–611.
45. Hall JA, Palmer RH, Orav EJ, Hargraves JL, Wright EA, Louis TA (1990). Performance quality, gender, and professional role: A study of physicians and non-physicians in 16 ambulatory care practices. *Medical Care*, 28: 489–501.
46. Ware JH, Dockery DW, Louis TA, Xu X, Ferris BG, Speizer FE (1990). Longitudinal and cross-sectional estimates of pulmonary function decline in never-smoking adults. *Am. J. Epidemiology*, 132: 685–700.
47. Laird NM, Louis TA (1991). Smoothing the non-parametric estimate of a prior distribution by roughening: An empirical study. *Comput. Statist. and Data Analysis*, 12: 27–38.
48. Louis TA (1991). Using empirical Bayes methods in Biopharmaceutical Research (with discussion). *Statistics in Medicine*, 10: 811–829.
49. Louis TA (1991). Assessing, accommodating, and interpreting the influences of heterogeneity. *Environmental Health Perspectives*, 90: 215–222.
50. Orav EJ, Louis TA, Palmer RH (1991). Variance components and their implications for statistical information in medical data. *Statistics in Medicine*, 10: 599–616.
51. Boulton C, Kane RL, Louis TA, Ibrahim JG (1991). Forecasting the number of future disabled elderly using Markovian and mathematical models. *J. Clinical Epi.*, 44: 973–98.
52. Anderson JE, Louis TA, Holm NV (1992). Time dependent association measures for bivariate survival distributions. *J. Am. Statist. Assoc.*, 87: 641–650.
53. Butler SM, Louis TA (1992). Random effects models with non-parametric priors. *Statistics in Medicine*, 11: 1981–2000.
54. Mangione TW, Fowler FJ Jr., Louis TA (1992). Question characteristics and interviewer effects. *J. Official Statistics*, 8: 293–307.
55. Bostick RM, Potter JD, Fosdick L, Lampe J, Wood JR, Ganz MD, Louis TA, Grambsch P, Grandits G (1993). Calcium and colorectal epithelial cell proliferation: Results of a randomized double-blind placebo controlled clinical trial. *J. Natl. Cancer Inst.*, 85: 132-141.
56. Chaloner K, Church T, Louis TA, Matts JP (1993). Graphical elicitation of a prior distribution for a clinical trial. *The Statistician*, 42: 341-353.
57. Carlin BP, Chaloner K, Church T, Louis TA, Matts JP (1993). Bayesian approaches for monitoring clinical trials, with an application to toxoplasmic encephalitis prophylaxis. *The Statistician*, 42: 355-367.

58. Louis TA (1993). Meta-analysis of Clinical Studies: The whole is greater than the sum of its parts. *Transfusion*, 33: 698-700.
59. Boulton C, Kane RL, Louis TA, Boulton L, McCarey D (1994). Chronic conditions that lead to functional limitation in the elderly. *J. of Gerontology: Medical Sciences*, 49: M28-M36.
60. Le C, Grambsch PM, Louis TA (1994). Association between survival time and ordinal covariates. *Biometrics*, 50: 213-219.
61. Devine OJ, Louis TA (1994). A constrained empirical Bayes estimator for incidence rates in areas with small populations. *Statistics in Medicine*, 13: 1119-1133.
62. Grambsch P., Louis TA, Bostick R, Grandits G, Fosdick L, Darif M, Potter J (1994). Statistical Analysis of Proliferative Index Data in Clinical Trials. *Statistics in Medicine*, 13:1619-1634.
63. Devine OJ, Halloran ME, Louis TA (1994). Empirical Bayes Methods for stabilizing incidence rates prior to mapping. *Epidemiology*, 5: 622-630.
64. DeMets DL, Anbar D, Fairweather W, Louis TA, O'Neill RT (1994). Training the next generation of Biostatisticians. *The American Statistician*, 48: 280-284.
65. Melnick S, Sherer R, Louis TA, Hillman D, Rodrigues E, Lackman C, Capps L, Brown L, Carlyn M, Vermund S, Korvick J, Deyton B (1994). Survival and disease progression according to gender of patients with HIV infection: The Terry Bein Community Programs for Clinical Research on AIDS. *J. Am. Medical Assoc.*, 272: 1915-1921.
66. Devine OJ, Louis TA, Halloran ME (1994). Empirical Bayes estimators for spatially correlated incidence rates. *Environmetrics*, 5: 381-398.
67. Kasiske BL, Ma JZ, Kalil RSN, Louis TA (1995). Effects of anti-hypertensive therapy on serum lipids: a meta-analysis. *Ann. Int. Med.*, 122: 133-141.
68. Shih JH, Louis TA (1995). Assessing gamma frailty models for clustered failure time data. *Lifetime Data Analysis*, 1: 205-220.
69. Maki DD, Ma JZ, Louis TA, Kasiske BL (1995). Long-term effects of Antihypertensive Agents on Proteinuria and Renal Function. *Archives of Int. Med.*, 155: 1073-1080.
70. Grambsch P, Randall BL, Bostick RM, Potter JD, Louis TA (1995). Modeling the Labeling Index Distribution: An Application of Functional Data Analysis. *J. Am. Statist. Assoc.*, 90: 813-822.
71. Shih J, Louis TA (1995). Inference on the association parameter in copula models for bivariate survival data. *Biometrics*, 51: 1384-1399.
72. Massy ZA, Ma JZ, Louis TA, Kasiske BL (1995). Lipid-lowering therapy in patients with renal disease. *Kidney International*, 48: 188-198.
73. Bostick RM, Fosdick L, Wood JR, Grambsch P, Grandits GA, Lillemoe TJ, Louis TA, Potter JD. (1995). Calcium and Colorectal Epithelial Cell Proliferation in Sporadic Adenoma Patients: a Randomized, Placebo-Controlled Clinical Trial. *J. Natl. Cancer Inst.*, 87: 1307- 1315.
74. Anderson JE, Louis TA (1995). Survival analysis using a scale change random effects model. *J. Am. Statist. Assoc.*, 90: 669-679.
75. Eisen EA, Wegman DH, Louis TA, Smith TJ, Peters JM (1995). Healthy Worker Effect in a Longitudinal Study of One-Second Forced Expiratory Volume (FEV1) and Chronic Exposure to Granite Dust. *Int. J. Epid.*, 24: 1154-1162.
76. Kasiske BL, Ma, JZ, Roberto SN, Kalil MD, Louis TA (1995). Effects of Antihypertensive Therapy on Serum Lipids. *Ann. Intern. Med.*, 122: 133-141.
77. Kasiske BL, Ma JZ, Louis TA, Swan SS (1995). Long-term effects of reduced renal mass in humans. *Kidney Intl.*, 48: 814-819.
78. Carlin BP, Louis TA (1996). Bayes and empirical Bayes Methods for Data Analysis. Chapman & Hall/CRC, Boca Raton, FL.
79. Devine OJ, Louis TA, Halloran ME (1996). Identifying areas with elevated incidence rates using empirical Bayes estimators. *Geographical Analysis*, 28: 187-199.

80. Potter JD, Bostick RM, Grandits GA, Fosdick L, Elmer P, Wood J, Grambsch P, Louis TA (1996). Hormone replacement therapy is associated with lower risk of adenomatous polyps of the large bowel: the Minnesota CPRU Case-control Study. *Cancer Epidemiology, Biomarkers & Prevention*, 5: 779-784.
81. Palmer RH, Louis TA, Peterson HF, Rothrock JK, Strain R, Wright EA (1996). What Makes Quality Assurance Effective? Results from a randomized controlled trial in 16 ambulatory care group practices. *Medical Care*, 34, #9: SS29-SS39.
82. Palmer RH, Hargraves JL, Orav EJ, Wright EA, Louis TA (1996). Leadership for Quality improvement in group practices. *Medical Care*, 34, #9: SS40-SS51.
83. Palmer RH, Wright EA, Orav EJ, Hargraves JL, Louis TA (1996). Consistency in performance among primary care practitioners. *Medical Care*, 34, #9: SS52-SS66.
84. Louis TA (1996). Research Synthesis: Applications to drug regulatory policy and health care policy. *Clinical Research and Regulatory Affairs*, 13: 5-11.
85. Shih J, Louis TA (1996). Tests of independence for Bivariate Survival Data. *Biometrics*, 52: 1440-1449.
86. Zelterman D, Le CT, Louis TA (1996). Bootstrap techniques for proportional hazards models with censored observations. *Statistics and Computing*, 6: 191-199.
87. Anderson JE, Louis TA (1996). Generating Pseudo-random variables from mixture models by exemplary sampling. *J. Statistical Computation and Simulation*, 54: 45-53.
88. Butler SM, Louis TA (1997). Consistency of maximum likelihood estimators in random effects models for longitudinal binary measures with non-parametric priors. *Annals of Statistics*, 25: 351-377.
89. Waller LA, Louis TA, Carlin BP (1997). Bayes methods for combining disease and exposure data in assessing environmental justice. *Environmental and Ecological Statistics*, 4: 267-281.
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RESEARCH GRANT & CONTRACT PARTICIPATION

Active Projects

- Pre-doctoral Training in Environmental Biostatistics. NIH-NIEHS, T32 ES012871 07/2004-06/2010. PI.
- Health and School Performance Among Youth Ages 9-13. NIH-NICHD 1 R01 HD048850, 03/2005-02/2010, Co-investigator.
- Multi-Center Uveitis Steroid Treatment (MUST) Trial. NIH-EY014660, 08/2004-04/2012, Co-investigator.
- Practice-based Opportunity for Promotion of Weight Reduction. NIH-NHLBI, Grant U01 HL087085, 09/25/2006-06/30/2011, Co-investigator.
- Hierarchical models for health services research, NIH-NIDDK Grant 1R01DK/HL61662, 10/2002-09/2005; and 2R01DK061662, 08/2007-07/2010, PI.
- Novel Statistical Methods for Gene-Environment Interactions in Complex Diseases, NIH-NHLBI, Grant 1R01HL090577-01, 09/2007-07/2010, Co-investigator.

Completed Projects

- NIH Postdoctoral Fellow (Grant) No.: 1-F02-GM53205-01, at Imperial College, London, England in the Mathematics Department with D.R. Cox, 1972/3.
- The Determination of Optimal Screening Frequency for the Early Detection of Cancer. NCI #38 215-4531-5, 06/75 – 09/77, Co-PI.
- Screening in Cervical Cancer: A Mathematical Model. NCI #38-215-4524-5, 06/75-05/76, Co-PI.
- Data Coordinating Center for the National Cooperative Unstable Angina Pectoris Study. NIH: N01 HV53027, 1980-1982, Co-PI.
- Alternative Designs of Standard Cancer Bioassay NIH-NIEHS-ES02709-81-1, 07/81-08/87, PI.
- The Effect of Selection Bias on the Analysis and Interpretation of Longitudinal Studies, Mellon Foundation Faculty Development Grant, 07/82-12/83, PI.
- Effects of SO₂ and Respirable Particulates on Health. NIEHS ES01180, 08/83-07/88, Co-PI.
- Cooperative agreement with the Society for Industrial and Applied Mathematics and the Environmental Protection Agency: Statistical Methods in Toxicology. 01/84-12/87, Co-PI.
- Ambulatory Care Demonstration Project. NCHSR HS03087, 06/82-01/84, Co-PI.
- Empirical Bayes Approaches to Multi-parameter Estimation Problems: NSF Grant * DMS-8702402, 07/84-07/90, Joint PI.
- Long-term visit to the Netherlands: NSF INT 8512148, 01/86-06/86, PI.
- Quality Differences Among Primary Care Practitioners. NCHSR HS05609. 01/87-09/88, Co-PI.
- Meta-modeling of Trends in Aging: Sloan Foundation 88-6-12, 1988, Co-PI.
- Oldest Old Mortality: Demographic Models. NIA PO1AG08761, 02/90-12/90, Co-PI.
- Cancer Prevention Research Unit, NIH/NCI: RO1-CA51932, 05/90-04/95, Co-PI.
- Statistical and Data Management Center, Community Programs for Clinical Research on AIDS. NIH/NIAID: NO1-AI-05073, 04/90-04/99, 3 U01 AI42170-07S1 5/99-12/99, Co-director.
- Graduate Training in Biostatistics. NIH/NIAID: 5-T32-A107432, 06/94-07/00, PI. * Statistical Methods to assess Environmental Justice. NIH/NIEHS: 1R01-ES-07750, 08/96-07/00, Co-PI.
- Statistical Methods for Environmental Social Science. EPA/NSF Partnership for Environmental Research Grant: SBR-9978238 , 08/99-07/00, Co-PI.

- Statistical methodology for evaluating environmental justice via longitudinal modeling, NSF SBR-9816560, 09/00-09/01, Co-PI.
- Retrospective Cohort Study of the Risk of Cardiovascular and Cerebrovascular Events in HIV Patients on HAART using the United States VA, HIV Database, The Veterans Medical Research Foundation, San Diego, CA, 09/00-09/02, PI of subcontract.
- Evaluating the Practice and Potential of Value-Added Modeling of Educational, Carnegie Corporation, Grant B7230, 04/01-06/02. CoPI.
- Improving Chronic Illness Care Evaluation, Group Health Cooperative of Puget Sound 02/01–10/03. PI of subcontract. Intervention study to evaluate the success of a quality intervention; determining the ultimate effects on costs, processes, and outcomes of care for patients.
- Reaching the uninsured through the individual market for health insurance. California HealthCare Foundation. 11/2001–06/2003. PI of subcontract. T
- Clinical Coordinating Center for Feasibility Studies on Retinoid Treatment in Emphysema. NHLBI N01-HR-96140, 09/99–12/04, (CO-PI, U of MN 09/99–07/00; PI RAND subcontract, 08/00–08/02; PI of Hopkins subcontract 09/02–12/04).
- Retrospective Cohort Study of the Risk of Cardiovascular and Cerebrovascular Events in HIV Patients on HAART using the United States VA, HIV Database, The Veterans Medical Research Foundation, San Diego, CA, 07/03-09/05. PI of subcontract.
- Chronic and acute exposure to ambient fine particles. EPA RD83054801. 02/03-01/06. co-investigator.
- Air Pollution and Health, A combined European and North American Assessment. Health Effects Institute H010788, 01/03-???. co-investigator.
- Hierarchical models for health services research, NIH-NIDDK Supplemental Grant, 3 R01 DK061662-03S1, 05/2006-08/2006, PI.
- United States Renal Data System. NIH-NIDDK N01-DK-92343, 11/1999 – 08/2004, PI (U of Minnesota subcontract 11/1999-07/2000;PI of RAND subcontract, 08/2000-07/2002; PI of Hopkins subcontract 09/02-10/06).
- Pandemic Influenza and the US Blood Supply - A Risk Assessment Modeling Study. American Red Cross, 06/2006-11/2007, PI.
- SCCOR: Molecular Determinants of Pulmonary Arterial Hypertension. NIH-NHLBI, Grant 1P50HL084946-01, 01/12/2007-02/29/2008, Co-investigator, PI and Director of the Statistics and Data Management Core.
- Models of Infectious Disease Agent Study (MIDAS), U01 GM070708-01, 04/2004-03/2009. Co-investigator.