

# WILLARD G. MANNING, JR.

## CURRICULUM VITAE

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### EDUCATION

Stanford University	Ph.D., Economics	1973
Stanford University	M.A., Economics	1971
California Institute of Technology	B.S., Economics	1968

### PROFESSIONAL EXPERIENCE

1997 - present Professor, The Irving B. Harris Graduate School of Public Policy Studies, and Department of Health Studies, Biological Science Division/Medical School, The University of Chicago, 1997 - present. Teaching Areas: econometrics, cost-benefit and cost-effectiveness analysis, and health economics.  
Chairman of the PhD program in public policy, 2001 - 2007.

1993 - 1997 Director of Graduate Studies, Doctoral Program in Health Services Research, Policy, and Administration at the University of Minnesota.

1991 - 1997 Professor, Institute for Health Services Research, School of Public Health, University of Minnesota. Teaching Areas: microeconomics, applied econometrics, and health economics for public health students.

1988 - 1991 Professor, Department of Health Services Management and Policy, School of Public Health, and Department of Economics, University of Michigan. Teaching Areas: microeconomics, applied econometrics, and health economics for public health students.

1982 - 1988 Visiting Professor, Department of Economics, UCLA. Teaching Areas: industrial organization, econometrics, and microeconomics.

1975 - 1988 Senior Economist, Economics Department, The RAND Corporation, Santa Monica.

1973 - 1975 Assistant Professor, joint appointment in the School of Public Health and the John F. Kennedy School of Government, Harvard University. Teaching Areas: Microeconomics for public policy and public health students.

## RESEARCH AREAS

Dr. Manning's primary area of interest has been the effect of insurance on health care cost, utilization, and health status. Starting with the Health Insurance Experiment (HIE), a large scale randomized study of the effect of alternative health insurance arrangements on health status and health care cost, his insurance work has included studies of the demand for various health services under both fee-for-service cost-sharing and prepaid insurance, as well as the impact on the appropriateness of care and health status. In these studies, he has examined statistical, measurement, and economic issues in modeling determinants of expenditures on and use of health services. The statistical modeling work has included split sample comparisons of alternative statistical estimation techniques, as well as Monte Carlo methods for outcomes with a large number of observations with zero values and skewed positive outcomes. He is currently examining the behavior of survival and generalized linear models as alternative estimators for situations involving death and otherwise censored costs.

His insurance work has included studies of the demand for various health services under both fee-for-service cost-sharing and prepaid (staff-model HMO) insurance: dental care, emergency room services, determinants of inappropriate admissions, outpatient and inpatient medical services, mental health care services, pediatric and preventive care. Recent work examined the effect of a prepaid mental health carve-out on the utilization of mental health services and mental health status enrolled in the Medicaid program, and the health impact of the uninsured becoming eligible for Medicare at age 65. Other work in the health insurance area includes an empirical determination of optimal health insurance coverage by considering the tradeoff between the costs from moral hazard and the gains from risk pooling in health insurance, as well as a theoretical examination of the second best optimal insurance for preventive care. He is currently examining second best optimal insurance for health care dealing with both multiple health care services and with multiple time periods.

His research interests also include economic evaluation of health treatment and cost-effectiveness analysis (CEA) and the economics of poor health habits. He has written on statistical and cost issues in CEA, and analyzed the cost-effectiveness of screening and treatment of depression in primary care settings, as well as issues of the theoretical appropriateness of measures of "indirect costs" for economic evaluations in health. Dr. Manning has a continuing research interest in the economics of poor health habits. Past studies have included analyses of whether smokers and heavy drinkers pay the full costs of their habits, price and other determinants of cigarette and alcohol demand, and differences in the response of alcohol demand to alcohol prices. He has a recent paper on the effects of alcohol prices on alcohol dependence and abuse. He is currently examining the impact of alcohol prices on patterns of alcohol consumption to better understand why the demand becomes price inelastic at high levels of consumption.

Dr. Manning has received the award for best article of the year from the Association for Health Services Research in 1990 for his article on the external costs of smoking and drinking (Manning, et al., JAMA 1989) and in 1993 for two articles from the Medical Outcome Study on

differences in costs across medical specialties (Greenfield et al, JAMA 1992; and Kravitz et al, JAMA 1992). In January 2003, he received the Kenneth Arrow Prize for best health economics article for 2001 for his paper on alternative estimators for health care costs (Manning and Mullahy, Journal of Health Economics, 2001). In June 2009, he received the Distinguished Investigator Award at the annual meeting of Academy Health, the professional society for health services research in the United States.

Dr. Manning is a member of the Institute of Medicine, and recently a member of its committee on the Consequences of Uninsurance, and the committee on valuing health for regulatory cost-effectiveness analysis.

### **PROFESSIONAL ORGANIZATIONS**

American Economics Association  
American Society for Health Economics  
American Statistical Association  
Institute of Medicine

### **EDITORIAL BOARDS**

Health Services Research  
Journal of Health Economics  
Journal of Mental Health  
Policy and Economics

### **JOURNAL REVIEWING**

American Economic Review  
Economic Inquiry  
Health Care Financing Review  
Health Services Research  
Inquiry  
Health Economics  
Journal of the American Medical Association  
Journal of the American Statistical Association  
Journal of Business and Economic Statistics  
Journal of Health Economics  
Journal of Human Resources  
Journal of the Royal Statistical Society  
Medical Care  
Quarterly Journal of Economics

## OTHER PROFESSIONAL

- 1989 - + Associate Editor of Journal of Health Economics
- 1990 - + Member, Editorial Board of Health Services Research
- 1994 - 1996 Member, Panel on Cost Effectiveness in Health and Medicine
- 1989 - 1993 Member, Health Services Research Study Section, AHCPR
- 1995 - + Member, Institute of Medicine
- 1996 - 1999 Member, Health Services Study Section, NIMH
- 2002 - 2006 Member, Health Services Study Section, AHRQ
- 2004- 2009 Board member, American Society of Health Economists
- 2009 - + Co-editor, Journal of Mental Health Policy and Economics

## PUBLICATIONS

1. Basu, Anirban, W.G. Manning, "Issues for the Next Generation of Health Care Cost Analyses," Medical Care, 44(3), 47(7\_Supplement\_1), S1009-S114, 2009.
2. Polsky, D., J.A. Doshi, J. Escarce, W. Manning, S.M. Paddock, L. Cen, and J. Rogowski, "The Health Effects of Medicare for the Near-Elderly Uninsured," Health Services Research, 44(3), 926-945, 2009.
3. Gilmer TP, Manning WG, Ettner SL, "A cost analysis of San Diego County's REACH program for homeless persons," Psychiatric Services. 60(4):445-50, 2009.
4. Newhouse J.P., R.H. Brook, N. Duan, E.B. Keeler, A. Leibowitz, W.G. Manning, M.S. Marquis, C.N. Morris, C.E. Phelps, and J.E. Rolph, "Attrition in the RAND Health Insurance Experiment: a response to Nyman," Journal of Health Politics, Policy, and Law, 33(2): 309-317, 2008.
5. Ellis, R.P., and W.G. Manning. "Optimal Health Insurance for Prevention and Treatment," Journal of Health Economics, 26(6), 1128-1150, 2007.
6. Gavin, N.I., E.K. Adams, W.G. Manning, C. Raskind-Hood, and M. Urato "The Impact of Welfare Reform on Insurance Coverage before Pregnancy and the Timing of Prenatal Care Initiation," Health Services Research, 42(4): 1564-1588, 2007.
7. Huang, E.S., A. Basu., J. Frytak, and W. Manning. "The complexity of medication regimens and test ordering for patients with diabetes from 1995 to 2003," Current Medical Research, 23(6):1423-30, 2007.
8. Simon GE, WJ Katon, EH Lin, C Rutter, WG Manning, M Von Korff P Ciechanowski, EJ Ludman, BA Young. "Cost-effectiveness of Systematic Depression Treatment among People with Diabetes Mellitus," Archives of General Psychiatry 64(1): 65-72, 2007
9. Basu, A., W.G. Manning, "A Test for Proportional Hazards Assumption within the Class of Exponential Conditional Mean Models," Health Services Outcomes Research Methodology 6(3), 81-100, 2006.
10. Fleishman, J.A., J.W. Cohen, W.G. Manning, M. Kosinski, "Using the SF-12 Health Status Measure to Predict Medical Expenditures," Medical Care, 44(5) (suppl):I-54-I-63, 2006.
11. DeLeire, T. and W. Manning. "Labor Market Consequences of Health Impairments." In R. Kessler and P Stang (eds.), Health and Work Productivity: Emerging Issues in Research and Policy. Chicago: University of Chicago Press, 2006.
12. Manning, W.G., "Dealing with Skewed Data on Costs and Expenditures," in A. Jones, Ed., The Elgar Companion to Health Economics, 2006.
13. Adams, EK, NI Gavin, WG Manning, A Handler. "Welfare Reform, Insurance Coverage Pre-

- Pregnancy, and Timely Enrollment: An Eight-State Study," Inquiry 42(2): 129-144, 2005
14. Manning, WG, "The Price of Smoking," Addiction 100(9): 1383-1384, 2005. A review.
  15. Daviglius, M.L., K. Liu, A. Pirzada, L.L. Yan, D.B. Garside, P. Greenland, L.M. Manheim, A.R. Dyer, R. Wang, J. Lubitz, W.G. Manning J.F. Fries, J. Stamler, "Cardiovascular risk profile earlier in life and Medicare costs in the last year of life," Archives of Internal Medicine, 165(9):1028-1034, 2005.
  16. Liu K, A.R. Dyer, T.H. Vu, A. Pirzada, L.M. Manheim, W.G. Manning, M.S. Ashraf, D.B. Garside, M.L. Daviglius, "One-hour postload plasma glucose in middle age and medicare expenditures in older age among nondiabetic men and women: the Chicago Heart Association Detection Project in Industry." Diabetes Care, 28(5):1057-1062, 2005.
  17. Manning W.G., A. Basu, J. Mullahy, "Generalized modeling approaches to risk adjustment of skewed outcomes data," Journal of Health Economics, 24(3): 465-488, 2005.
  18. Daviglius M.L., K. Liu., L.L. Yan, A. Pirzada, L. Manheim, W. Manning, D.B. Garside, R. Wang, A.R. Dyer, P.J. Greenland., J. Stamler. "Relation of body mass index in young adulthood and middle age to Medicare expenditures in older age." Journal of the American Medical Association. 292(22): 2743-2749, 2004.
  19. Miller W., E.R. Vigdor, and W.G. Manning, "Covering the uninsured: what is it worth?" Health Affairs (Millwood). Jan-Jun;Supplement:W4-157-67, 2004
  20. Basu, A., W.G. Manning, and J. Mullahy, "Comparing Alternative Models: Log vs. Cox Proportional Hazard?" Health Economics, 13(8): 749-765, 2004 .
  21. DeLeire, T., and W.G. Manning, "Labor Market Costs of Injury and Illness: Prevalence Matters," Health Economics, 13(3): 239-260, 2004.
  22. Adams E.K., N.I. Gavin, A. Handler, W. Manning, and C. Raskind-Hood , "Transitions in insurance coverage from before pregnancy through delivery in nine states, 1996-1999," Health Affairs (Millwood). 22(1): 219-229, 2003.
  23. Harman J.S., W.G. Manning, N. Lurie, and J.B. Christianson , "Association between interruptions in Medicaid coverage and use of inpatient psychiatric services," Psychiatric Services, 54(7): 999-1005, 2003.
  24. Veazie P.J., W.G. Manning, and R.L. Kane, "Improving risk adjustment for Medicare capitated reimbursement using nonlinear models," Medical Care., 41(6): 741-752, 2003.
  25. Farrell, S., W. G. Manning, and M.D. Finch, "Alcohol Dependence and the Price of Alcoholic Beverages," Journal of Health Economics, 22: 117-147, 2003.
  26. Meltzer, D.M., W.G. Manning, J. Morrison, M.N. Shah, L. Jin, T. Guth, and W. Levinson "Effects of Physician Experience on Costs and Outcomes on an Academic General Medicine Service: Results of a Trial of Hospitalists," Annals of Internal Medicine, 137(11): 866-874, 2002.
  27. Harman JS, W.G. Manning, N. Lurie, and C.F. Liu, "Interpreting results in mental health research," Mental Health Services Research. 3(2):91-97, 2001.
  28. Keeler, T.E., T. W. Hu, and W.G. Manning, "State Tobacco Taxation, Education and Smoking: The Effects of Omitted Variables," National Tax Journal, 54(1): 83-102, 2001.
  29. Manning, W.G., and M.S. Marquis, "Health Insurance: Tradeoffs Revisited," Journal of Health Economics, 20(4): 289-293, 2001.
  30. Manning, W.G., and J. Mullahy, "Estimating Log Models: To Transform Or Not To Transform?," Journal of Health Economics, 20(4): 461-494, 2001. Also, National Bureau of Economic Research, Technical Working Papers 246, 1999.
  31. Simon, G.E., W.G. Manning, D.J. Katzelnick, S. Pearson, H.J. Henk, and C.P. Helstad, "Cost-Effectiveness of Systematic Depression Treatment Among 'High Utilizers' of General Medical Care," Archives of General Psychiatry, 58: 181-187, 2001

32. Collins, A.J., S.Li, J. Ebben, J.Z. Ma, and W. Manning, "Hematocrit Levels and Associated Medicare Expenditures," American Journal of Kidney Disease 36(2): 282-293, 2000.
33. Katzelnick, D.J., G.E. Simon, S.D. Pearson, W.G. Manning, C.P. Helstad, H.J. Henk, S.M. Cole, E.H.B. Lin, L.H. Taylor, and K.A. Kobak, "Randomized Trial of a Depression Management Program in High Utilizers of Medical Care," Archives of Family Medicine, 9: 345-351, 2000
34. LaFond, Colette, T.L. Toomey, C. Rothstein, W.G. Manning, and A.C. Waenaar, "Policy Evaluation Research: Measuring the Independent Variables," Evaluation Review 24(1): 92-101, 2000.
35. Suh, D.C., W.G. Manning, Jr., S. Schondelmeyer, and R. S. Hadsall, "Effect of Multiple-Source Entry on Price Competition After Patent Expiration in the Pharmaceutical Industry" Health Services Research 35(2): 529-547, 2000.
36. Zweifel, P.J., and W.G. Manning, "Handbook of Health Economics: Consumer Incentives in Health Care," in Newhouse, J.P., and A.J. Culyer, eds., Handbook of Health Economics, 2000.
37. Chan, B., R. Feldman, and W.G. Manning, "The Effects of Group Size and Group Economic Factors on Collaboration: A Study of the Financial Performance of Rural Hospitals in Consortia," Health Services Research, 34(1): 9-32, 1999.
38. Hofer, T.P., R.A. Hayward, E. Wagner, S. Greenfield, W.G. Manning, "Provider Variation and the Reliability of Provider Report Cards: Evidence from Diabetes Care across Three Practice Settings," Journal of the American Medical Association, 281(22): 2097-2105, 1999.
39. Kenkel, D.S., and W.G. Manning, "The Economics of Diet-Related Health," Food Policy, 24: 145-162, 1999.
40. Liu, Chuan-Fen, W.G. Manning, et al., "Patterns of Outpatient Use of Mental Health Services for Medicaid Beneficiaries under a Prepaid Mental Health Carve-out," Administration and Policy in Mental Health, 26(6): 401-415, 1999.
41. Manning, W.G., C-F. Liu, T.J. Stoner, D.Z. Gray, N. Lurie, M. Popkin, J.B. Christianson, "Outcomes for Medicaid Beneficiaries With Schizophrenia Under a Prepaid Mental Health Carve-out", Journal of Behavioral Health Services & Research, 26(4):442-450, 1999.
42. Marquis, M.S., and W.G. Manning, "Lifetime Costs and Compensation for Injuries," Inquiry, 36(3): 244-254, 1999.
43. Pearson, S.D., D.J. Katzelnick, G.E. Simon, W.G. Manning, C.P. Helstad, and H.J. Henk, "Depression among High Utilizers of Medical Care", Journal of General Internal Medicine, 14(8): 461-468, 1999.
44. Lurie N, J.B. Christianson, D.Z. Gray, W.G. Manning, and M.K. Popkin, "The Effect of the Utah Prepaid Mental Health Plan on Structure, Process, and Outcomes of Care." New Directory of Mental Health Services. (78): 99-106, 1998.
45. Manning, W.G., "The Logged Dependent Variable, Heteroscedasticity, and the Retransformation Problem," Journal of Health Economics, 17(3): 283-295, 1998.
46. McMahon, L.F., R. Wolfe, S. Huang, P. Tedeschi, W. Manning and M. Edlund, "Hospitalization for Gastrointestinal and Liver Diseases: the Effect of Socioeconomic and Medical Supply Factors," Journal of Clinical Gastroenterology, 26(2): 101-105, 1998.
47. Nyman, J.A., W.G. Manning, S. Samuels, and B.F. Morrey, "Can Specialists Reduce Costs? The Case of Referrals to Orthopedic Surgeons," Clinical Orthopedics, 350: 257-267, 1998.
48. Feldman, R. and W.G. Manning, "Une Formule Simple du Taux Optimale pour Une Police D-Assurance Maladie," in S. Jacobzone (ed.) Economie de la Sante: Trajectoires du Futur, Insee Methodes, number 64-65, pp.133-144, French National Ministry of Health, 1997 (English Translation: "A Simple Formula for the Optimal Coinsurance Rate in a Health Insurance Policy").
49. Gilmer, T.P., P.J. O'Connor, W.G. Manning, and W.A. Rush, "The Cost to Health Plans of Poor

- Glycemic Control," Diabetes Care, 20(12):1847-1853, 1997.
50. Hayward, R.A., W.G. Manning, S.H. Kaplan, E.H. Wagner, and S. Greenfield, "Starting Insulin Therapy in Patients with Type 2 Diabetes: Effectiveness, Complications, and Resource Utilization," Journal of the American Medical Association, 278(20): 1663-1669, 1997.
  51. Manning, W.G., "Alternative Econometric Models of Alcohol Demand," Chapter 4. In: The Science of Prevention, Bryant, K.J., Windle, M., West, S.G., Eds., American Psychological Association, 101-122, 1997.
  52. Nelson, E.C., C.A. McHorney, W.G. Manning, et al., "A Longitudinal Study of the Impact of Prepaid Health Care on Hospitalization Rates for Patients with Serious Chronic Disease: Results from the Medical Outcomes Study", Health Services Research, 16(1): 121-128, 1997.
  53. Popkin, M., A. Callies, N. Lurie, J. Harman, T. Stoner, and W. G. Manning, "An Instrument to Evaluate the Process of Psychiatric Care in Ambulatory Settings," Psychiatric Services, 48(4): 524-527, 1997.
  54. Stoner, T., W. Manning, J. Christiansen, D. Gray, and S. Marriott, "Expenditures for Mental Health Services in the Utah Prepaid Mental Health Plan," Health Care Financing Review 18(3): 73-94, 1997.
  55. Weinstein, M., and W.G. Manning, "Theoretical Issues in Cost-Effectiveness Analysis," Journal of Health Economics, 16(1): 121-128, 1997.
  56. Weinstein, M.C., J.E. Siegel, A.M. Garber, J. Lipscomb, B.R. Luce, W.G. Manning, and G.W. Torrance, "Productivity Costs, Time Costs and Health-Related Quality of Life: a Response to the Erasmus Group," Health Economics, 6(5): 505-510, 1997.
  57. Katz, S.J., L.F. McMahon, and W.G. Manning, "Comparing the Use of Diagnostic Tests in Canadian and U.S. Hospitals," Medical Care, 34(2): 117-125, 1996.
  58. Katz, S.J., T.P. Hofer, and W.G. Manning, "Hospital Utilization in Canada and the United States: The Impact of Socioeconomic Status and Health Status," Canadian Journal of Public Health, 87(4): 253-256, 1996.
  59. Katz, S.J., T.P. Hofer, and W.G. Manning, "Physician Utilization in Ontario and the United States: The Impact of Socioeconomic Status and Health Status", American Journal of Public Health, 86(4): 520-524, 1996.
  60. Keeler, T., T. Hu, P. Barnett, W.G. Manning, and H. Sung, "Do Cigarette Producers Price-Discriminate by State? An Empirical Analysis of Local Cigarette Pricing and Taxation," Journal of Health Economics, 15(4): 499-512, 1996.
  61. Kenkel, D. and W. G. Manning, "Putting Alcohol Taxation Into Perspective," Alcohol Health and Research World, 20(4):230-238, 1996.
  62. Luce, B.R., W.G. Manning, J. Siegel, and J. Lipscomb, "Estimating Costs in Cost-Effectiveness Analysis," in M. Gold et al. (eds.) Cost-Effectiveness in Health and Medicine, New York: Oxford University Press, 176-213, 1996.
  63. Manning, W.G., D.G. Fryback and M.S. Weinstein, "Reflecting Uncertainty in Cost-Effective Analysis," in M. Gold et al. (eds.) Cost-Effectiveness in Health and Medicine, New York: Oxford University Press, 247- 275, 1996.
  64. Manning, W.G., and M.S. Marquis, "Health Insurance: The Trade-off Between Risk Pooling and Moral Hazard," Journal of Health Economics, 15(5):609-639, 1996.
  65. Manning, W.G. and J.F. Sindelar, "Cost-benefit and Cost-effectiveness Analysis: Issues in the Evaluation of the Treatment of Illicit Drug Abuse," Chapter 7. In: Treating Drug Abusers Effectively, Egertson, J.A., Fox, D.M., Leshner, A.I., Eds., Blackwell, 187-122, 1996.
  66. Warner, K.E., F. Chaloupka, P.J. Cook, W.G. Manning, J. Newhouse, T. Novotny, T. Schelling and J. Townsend, "Criteria for Determining an Optimal Cigarette Tax: The Economist's Perspective," Tobacco Control, 4: 380-386, 1996.

67. Christianson, J.B., W.G. Manning, N. Lurie, et al., "Utah's Prepaid Mental Health Plan: The First Year," Health Affairs, 14(3): 160-172, 1995.
68. Jackson, C.A., W.G. Manning, and K.B. Wells, "Impact of Prior and Current Alcohol Use on Use of Services by Patients with Depression and Chronic Medical Illnesses," Health Services Research, 30(5): 687-705, 1995.
69. Manning, W.G., L. Blumberg, and L. Moulton, "The Demand for Alcohol: The Differential Response to Price", Journal of Health Economics, 14: 123-148, 1995
70. Moscovice, I., J.B. Christianson, J. Johnson, J.E. Kralewski, and W.G. Manning. Building Rural Hospital Networks. Ann Arbor: Health Administration Press, 244 pp., 1995.
71. Moscovice, I., J.B. Christianson, J. Johnson, J.E. Kralewski, and W.G. Manning, "Rural Hospital Networks: Implications for Rural Health Reform," Health Care Financing Review, 17(1): 53-67, 1995.
72. Mullahy, J., and W.G. Manning, "Statistical Issues in Cost-Effectiveness Analyses" in F. Sloan (ed.) Valuing Health Care: Costs, Benefits and Effectiveness of Pharmaceuticals and Other Medical Technologies, Cambridge University Press, pages149 -184, 1995.
73. Sturm, R., C. Jackson, L.A. Meredith, W. Yip, W.G. Manning, W.H. Rogers, and K.B. Wells, "Mental Health Care Utilization in Prepaid and Fee-for-Service Plans among Depressed Patients in the Medical Outcome Study," Health Services Research, 30(2): 319-340, 1995.
74. Hayward, R.A., W.G. Manning, L.F. McMahon, and A.M. Bernard, "Do Attending or Resident Physician Practice Styles Account For Variations in Hospital Resource Use?" Medical Care, 32(8): 788-794, 1994.
75. Sturm, R., E.A. McGlynn, L.S. Meredith, K.B. Wells, W.G. Manning and W.H. Rogers, "Switches Between Prepaid and Fee-For-Service Health Systems Among Depressed Outpatients: Results from the Medical Outcomes Study," Medical Care, 32(9): 917-929, 1994.
76. Keeler, T.E., T.W. Hu, et al., "Taxation, Regulation, Addiction: A Demand Function for Cigarettes Based on Time Series Evidence," Journal of Health Economics, 12(1): 1-18, 1993.
77. Newhouse, J.P., E.M. Sloss, W.G. Manning, and E.B. Keeler, "Risk Adjustment for a Children's Capitation Rate," Health Care Financing Review, 15(1): 39-54, 1993.
78. Greenfield, S., E.C. Nelson, et al., "Variations in Resource Utilization Among Medical Specialties and Systems of Care: Results from the Medical Outcomes Study," Journal of the American Medical Association, 267(12): 1624-1630, 1992.
79. Khandker, R., and W.G. Manning, "Impact of Utilization Review on Costs and Utilization", in H.E. Frech and P. Zweifel (eds.), Health Economics Worldwide, pp. 47-62, Kluwer, 1992.
80. Khandker, R.K., W.G. Manning, and T. Ahmed, "Utilization Review Savings at the Micro Level," Medical Care, 30(11): 1043-1052, 1992.
81. Kravitz, R.L., S. Greenfield, et al., "Differences in the Mix of Patients Among Medical Specialties and Systems of Care: Results from the Medical Outcomes Study," Journal of the American Medical Association, 267(12): 1617-1623, 1992.
82. Manning, W.G. and R. Frank, "Econometric Issues in the Demand for Mental Health Care Under Insurance," in R. Frank and W.G. Manning (eds.) Economics of Mental Health, Johns Hopkins University Press, 1992.
83. Manning, W.G., and K.B. Wells, "The Effect of Psychological Distress and Psychological Well-Being on the Use of Medical Services," Medical Care, 30(6): 541-553, 1992.
84. Wasserman, J., W.G. Manning, et al., "The Effects of Excise Taxes and Regulations on Adult and Teenage Cigarette Smoking," Journal of Health Economics, 10(1): 43-64, 1991.
85. Siu, A.L., W.G. Manning, and B. Benjamin, "Patient, Provider, and Hospital Characteristics Associated with Inappropriate Hospitalizations," American Journal of Public Health, 1990.

86. Wells, K.B., E. Keeler, and W.G. Manning, "Patterns of Outpatient Mental Health Care Over Time: Some Implications for Estimates of Demand and for Benefit Design," Health Services Research, 24(6): 773-790, 1990.
87. Wells, K.B., W.G. Manning, and R.G. Valdez, "The Effects of a Prepaid Group Practice on Mental Health Outcomes of a General Population," Health Services Research, 25(4): 615-625, 1990.
88. Keeler, E.G., W.G. Manning, et al., "The External Cost of a Sedentary Life Style," American Journal of Public Health, 79(8): 975-981, 1989.
89. Manning, W.G., E.B. Keeler, et al., "The Taxes of Sin: Do Smokers and Drinkers Pay Their Way?," Journal of the American Medical Association, 261(11): 1604-1609, 17, 1989.
90. Newhouse, J.P., W.G. Manning, E.G. Keeler, et al., "Objective Measures of Health and Prior Utilization as Adjusters for Capitation Rates," Health Care Financing Review, 10(3): 41-54, 1989.
91. Valdez, R.P., J.E. Ware, W.G. Manning, et al., "The Effect of a Prepaid Group Practice on the Utilization of Medical Services and Health Outcomes for Children: Results from a Controlled Study," Pediatrics, 83(2): 168-180, 1989.
92. Wells, K.B., W.G. Manning, and B.R. Valdez, "The Effects of a Prepaid Group Practice on the Psychological Distress and Psychological Well-Being of a General Population," Archives of General Psychiatry, 46(4): 315-32, 1989.
93. Bailit, H.L. and W.G. Manning, "The Need and Demand for Periodontal Services: Implications for Dental Practice and Education," Journal of Dental Education, 52(8): 458-462, 1988.
94. Keeler, E.B., W.G. Manning, and K.B. Wells, "The Demand for Episodes and Mental Health Services," Journal of Health Economics, 7: 369-382, 1988. Also, the RAND Corporation, R-3432-HIS/NIMH, 1986.
95. Keeler, E.B., K.B. Wells, and W.G. Manning, "Markov and Other Models of Episodes of Mental Health Treatment," in Advances in Health Economics and Health Services, 1988, Vol. 8, JAI Press, Inc.
96. Lurie, N., W.G. Manning, C. Peterson, et al., "Preventive Care: Do We Practice What We Preach?," American Journal of Public Health, 77(7): 801-804, 1987.
97. Manning, W.G., N. Duan, and W.G. Rogers, "Monte Carlo Evidence on the Choice Between Sample Selection and Two-Part Models," Journal of Econometrics, 35(1): 59-82, 1987.
98. Manning, W.G., J.P. Newhouse, N. Duan, et al., "Health Insurance and the Demand for Medical Care: Evidence from a Randomized Experiment," American Economic Review, 77(3): 251-277, 1987.
99. Manning, W.G., K.B. Wells, and B. Benjamin, "Use of Outpatient Mental Health Services Over Time in a Health Maintenance Organization and Fee-for-Service Plans," American Journal of Psychiatry, 144(3): 283-287, 1987.
100. Newhouse, J.P., W.G. Manning, N. Duan, et al., "The Findings of the RAND Health Insurance Experiment - A Response to Welch, et al.," Medical Care, 25: 157-179, 1987.
101. Wells, K.B., W.G. Manning, N. Duan, et al., "Cost Sharing and Use of General Medical Providers for Outpatient Mental Health Care," Health Services Research, 22(1): 1-18, 1987.
102. Wells, K.B., W.G. Manning, and B. Benjamin, "Comparison of Use of Outpatient Mental Health Services in an HMO and Fee-for-service Plans: Sensitivity to Definition of a Visit." Medical Care, 25(9): 894-903, 1987.
103. Manning, W.G. and K.B. Wells, "Preliminary Results of a Controlled Trial of the Effect of a Prepaid Group Practice on the Outpatient Use of Mental Health Services," Journal of Human Resources, 21(3): 392-320, 1986.

104. Manning, W.G., K.B. Wells, N. Duan, et al., "How Cost Sharing Affects the Use of Ambulatory Mental Health Services," Journal of the American Medical Association, 256: 1930-1934, 1986.
105. Siu, A.L., F. Sonnenberg, W.G. Manning, et al., "Inappropriate Use of Hospitals in a Randomized Trial of Health Insurance Plans," New England Journal of Medicine, 315: 1259-1266, 1986.
106. Valdez, R.B., A. Leibowitz, J.E. Ware, et al., "Health Insurance, Medical Care, and Children's Health," Pediatrics, 77(1): 124-128, 1986.
107. Wells, K.B., W.G. Manning, and B. Benjamin, "A Comparison of the Effects of Sociodemographic Factors and Health Status on Use of Outpatient Mental Health Services in HMO and Fee-for-Service Plans," Medical Care, 24(10): 949-960, 1986.
108. Wells, K.B., W.G. Manning, N. Duan, et al., "Sociodemographic Factors and the Use of Outpatient Mental Health Services," Medical Care, 24: 75-85, 1986.
109. Wells, K.B., W.G. Manning, and B. Benjamin, "Use of Mental Health Services in HMO and Fee-for-Service Plans -- Results of a Randomized Controlled Trial," Health Services Research, 21(3): 453-474, 1986.
110. Wells, K.B., W.G. Manning, N. Duan J.P. Newhouse, and J.E. Ware, "Use of Outpatient Mental Health Services by a General Population with Health Insurance Coverage." Hospital and Community Psychiatry, 37(11): 1119-25, 1986.
111. Leibowitz, A., W.G. Manning, E.B. Keeler, et al., "The Effect of Cost Sharing on the Use of Medical Services by Children: Interim Results from a Randomized Controlled Trial," Pediatrics, 75(5): 942-951, 1985.
112. Leibowitz, A., W.G. Manning, and J.P. Newhouse, "The Demand for Prescription Drugs as a Function of Cost Sharing," Social Science and Medicine, 21(10): 1063-1069, 1985.
113. Manning, W.G., H.L. Bailit, B. Benjamin, et al., "The Demand for Dental Care: Evidence from a Randomized Trial in Health Insurance," Journal of the American Dental Association, 110: 895-902, 1985.
114. O'Grady, K., W.G. Manning, J.P. Newhouse, et al., "The Impact of Cost-Sharing on Emergency Department Use," New England Journal of Medicine, 313: 484-490, 1985.
115. Duan, N., W.G. Manning, and C.N. Morris, "Comments on Selectivity Bias," in Advances in Health Economics and Health Services Research, Vol. 6, JAI Press, Inc., 1985.
116. Danzon, P.M., W.G. Manning, and M.S. Marquis, "Factors Affecting Laboratory Test Use and Prices," Health Care Financing Review, 5(4): 23-32, 1984.
117. Duan, N., W.G. Manning, C.N. Morris, et al., "Choosing Between the Sample Selection Model and the Multi-Part Model," Journal of Business and Economic Statistics, 2(3):283-289, 1984.
118. Lillard, L.A., W.G. Manning, and C.E. Phelps, "A Multivariate Model of Medical Visit Counts," Draft, presented to the Econometric Society, 1984.
119. Manning, W.G., A. Leibowitz, G.A. Goldberg, et al., "A Controlled Trial of the Effect of a Prepaid Group Practice on Use of Services," The New England Journal of Medicine, 310: 1505-1510, 1984.
120. Manning, W.G., L.A. Lillard, and C.P. Phelps, "Preventive Medical Care and Its Consequences: The Effect of a Randomly Assigned Physical Examination," edited by W. van Eimeren, R. Engelbrecht, and C. Flagle Proceedings of the Third International Conference on Systems Science in Health Care, Springer Verlag, 1984.
121. Manning, W.G., K.B. Wells, N. Duan, et al., "A Response to Drs. Ellis and McGuire," American Psychologist, 39(10): 1197-1199, 1984.
122. Manning, W.G., K.B. Wells, N. Duan, et al., "Cost Sharing and the Use of Ambulatory Mental Health Services," American Psychologist, 39(10): 1077-1089, 1984.

123. Ware, J.E., W.G. Manning, N. Duan, et al., "Health Status and the Use of Ambulatory Mental Health Services," American Psychologist, 39(10): 1090-1100, 1984.
124. Wells, K.B., W.G. Manning, N. Duan, et al., "The Sensitivity of Mental Health Care Use and Cost Estimates to Methods Effects," Medical Care, 22: 783-788, 1984.
125. Duan, N., W.G. Manning, C.N. Morris, et al., "A Comparison of Alternative Models for the Demand for Medical Care," Journal of Business and Economics Statistics, 1(2): 115-126, 1983.
126. Manning, W.G., J.P. Newhouse, and J.E. Ware, "The Status of Health in Demand Estimation: or, Beyond Excellent, Good, Fair, and Poor," in Victor Fuchs (ed.), Economic Aspects of Health, National Bureau of Economic Research, University of Chicago Press, Chicago, 1982.
127. Manning, W.G., C.M. Morris, J.P. Newhouse, et al., "A Two-Part Model of the Demand for Medical Care: Preliminary Results from the Health Insurance Study," in J. van der Gaag and M. Perlman (eds.), Health, Economics, and Health Economics, North Holland, Amsterdam, 1981.
128. Newhouse, J.P., W.G. Manning, C.N. Morris, et al., "Some Interim Results from a Controlled Trial in Health Insurance," The New England Journal of Medicine, 305: 1501-1507, 1981.
129. Acton, J.P., B.M. Mitchell, and W.G. Manning, "Peak-Load Pricing of Electricity," Journal of Business Administration, 10(1&2), Fall 1978/Spring 1979. Also in Peter N. Nimitz (ed.) Energy Policy -- The Global Challenge, Institute for Public Policy Research, Montreal, 1979.
130. Manning, W.G. and C.E. Phelps, "Demand for Dental Care," Bell Journal of Economics, 10(2): 503-525, 1979.
131. Manning, W.G., B.M. Mitchell, and J.P. Acton, "Design of the Los Angeles Peak-Load Pricing Experiment for Electricity," in D. Aigner (ed.) Experimental Design in Econometrics, Vol. II of Annals of Applied Econometrics, North Holland, New York, 1979.
132. Acton, J.P., B.M. Mitchell, and W.G. Manning, "Foreign Experience with Peak-Load Pricing of Electricity," in Impact of the National Energy Act on Utilities and Industries Due to the Conversion to Coal, Conference Proceedings, Houston, Texas, 1978.
133. Besen, S.M., W.G. Manning, and B.M. Mitchell, "Copyright Liability for Cable Television: Compulsory Licensing and the Case Theorem," Journal of Law and Economics, 21(1): 67-95, 1978.
134. Mitchell, B.M., W.G. Manning, and J.P. Acton, "Tariffe elettriche industriali e modulazione dei carichi," Economia della Fonte di Energia, 1978.
135. Acton, J.P., W.G. Manning, and B.M. Mitchell, "Lessons from the L.A. Rate Experiment in Electricity," in J.L. O'Donnel (ed.) Adapting Regulation to Shortages, Curtailment, and Inflation, Michigan State University, 1977.
136. Manning, W.G. and B.M. Owen, "Television Rivalry and Network Power," Public Policy, 24(1), 1976.
137. Williams, A.P., G.M. Carter, A.J. Harman, et al., "Policy Analysis for Federal Biomedical Research," in S. Nagel (ed.) Policy Studies Review Annual, Vol. 1, 1977.

## BOOKS

1. Newhouse, J.P., Archibald, R.W., et al., Free-For-All: Health Insurance, Medical Costs, and Health Outcomes: The Results of the Health Insurance Experiment, Cambridge: Harvard University Press, 1993.
2. Manning, W.G., E.B. Keeler, et al., The Costs of Poor Health Habits, Harvard University Press, 1991.
3. Frank, R. and W.G. Manning (eds.), Economics of Mental Health, Johns Hopkins University Press, 1992.

4. Mitchell, B.M., W.G. Manning, and J.P. Acton, Peak-Load Pricing: European Lessons for U.S. Energy Policy, Ballinger, Cambridge, MA, 1978.
5. Owen, B.M., J.H. Beebe, and W.G. Manning, Television Economics, D.C. Heath, Lexington, MA, 1974

## RESEARCH MONOGRAPHS AND TECHNICAL REPORTS

1. Basu, A., D. Polsky, W. G. Manning, "Use of Propensity Scores in Non-Linear Response Models: The Case for Health Care Expenditures," NBER Working Paper No. 14086, June 2008.
2. Polsky, D., J.A. Doshi, J. Escarce, W. Manning, S.M. Paddock, L. Cen, and J. Rogowski, "The Health Effects of Medicare for the Near-Elderly Uninsured," NBER Working Paper No. 12511, September 2006.
3. Manning, W.G., A. Basu, and J. Mullahy, "Generalized Modeling Approaches to Risk Adjustment of Skewed Outcomes Data," NBER Technical Working Paper No. 293, October 2003.
4. Manning, W.G., and J. Mullahy, "Estimating Log Models: To Transform or Not to Transform?" NBER Technical Working Paper No. T246, November 1999.
5. Hensler, D., S. Marquis, et al., "Accidents and Injuries in the U.S.: Costs, Compensation, and Claiming Behavior," RAND Report, R-3999-HHS/IC-I, 1991.
6. Manning, W.G., K.B. Wells, J.L. Buchanan, et al., "Effects of Mental Health Insurance: Evidence from the Health Insurance Experiment," RAND Report, R-3815-NIMH/HCFA, 1989
7. Davies, A.R., H.M. Allen, W.G. Manning, et al., "Explaining Dental Utilization" The RAND Corporation, R-3528-NCHSR, 1987.
8. Manning, W.G., K.B. Wells, and B. Benjamin, Use of Outpatient Mental Health Care: Trial of a Prepaid Group Practice versus Fee-for-Service, The RAND Corporation, R-3277-NIMH, 1985.
9. Manning, W.G., The Use of Pathology Services: A Comparison of Fee-for-Service and a Prepaid Group Practice, The RAND Corporation, R-2919-HCFA, 1982.
10. Wells, K.B., W.G. Manning, N. Duan, et al., Cost Sharing and the Demand for Ambulatory Mental Health Services, The RAND Corporation, R-2960-HHS, 1982.
11. Manning, W.G. and J.P. Acton, Residential Electricity Demand Under Time-of-Day Pricing: Exploratory Analysis from the Los Angeles Rate Study, The RAND Corporation, R-2426-DWP/HF, 1980.
12. Acton, J.P., B.M. Mitchell, and W.G. Manning, European Industrial Response to Peak-Load Pricing of Electricity, with Implications for U.S. Energy Policy, The RAND Corporation, P-5929, 1978.
13. Acton, J.P., B.M. Mitchell, and W.G. Manning, Projected Nationwide Energy and Capacity Savings from Peak-Load Pricing of Electricity in the Industrial Sector, The RAND Corporation, R-2179-DOE, 1978.
14. Mitchell, B.M., W.G. Manning, and J.P. Acton, Electricity Pricing and Load Management: Foreign Experience and California Opportunities, The RAND Corporation, R-2106-CERCDC, 1977.