



ROBERT BARTELS

EXPERTISE: Econometrics and Statistics

PHONE: +61 425 338 456

EMAIL: robert.bartels@sydney.edu.au

EDUCATION

1969 - 1972	PhD (Syd) in Economic Statistics (Thesis Topic: Stable Distributions in Economics)
1965 - 1968	BA (Hons 1) (Syd). University Medal in Mathematical Statistics. Majors in Mathematical Statistics and Pure Mathematics

CAREER

2006 - present	Emeritus Professor in Business Analytics, University of Sydney
2006	Head, School of Economics and Political Science, University of Sydney
2000 - 2002	Head, School of Business, University of Sydney
1987 - 1988	Head, Department of Econometrics, University of Sydney
1975 - 2006	Various positions, from Lecturer to Professor, in Econometrics and Business Statistics, University of Sydney
1972 - 1974	Lecturer in Statistics, Macquarie University

OTHER PROFESSIONAL ACTIVITIES

Editorial boards

1999 - 2006	Associate Editor, <i>Energy Economics</i>
1992 - 2014	Editorial Board, <i>Utilities Policy</i>
1986 - 2006	Editorial Advisor, <i>Statistical Papers</i>

Refereeing

American Economic Review, Review of Economics and Statistics, Journal of Econometrics, Journal of Applied Econometrics, American Statistician, Energy Economics, The Energy Journal, Energy Policy, Empirical Economics, Economic Record, Journal of Productivity Analysis, Linear Algebra and its Applications, Australian Journal of Agricultural Economics, Journal of Official Statistics, Communications in Statistics, Quality Control, Applied Statistics, Statistical Papers, Psychological Bulletin, Australian Research Council, Netherlands Organisation for Scientific Research.

PUBLICATIONS

Refereed articles

1. Bartels, R., Fiebig, D.G. and van Soest, A. (2006), "Consumers and experts: An econometric analysis of the demand for water heaters", *Empirical Economics*, 31(2), 369-391.

2. Bartels, R., Fiebig, D.G. and McCabe, A. (2004), "The value of using stated preference methods: a case study in modelling water heater choices", *Mathematics and Computers in Simulation*, 64 (3&4), 487-495.
3. Bartels, R. and Islam, T. (2002), "Supply restricted telecommunications markets: The effect of technical efficiency on waiting times", *Journal of Productivity Analysis*, 18(2), 161-169.
4. Bartels, R. and Fiebig, D.G. (2000), "Residential end-use electricity demand: results from a designed experiment", *The Energy Journal*, 21(2), 51-81.
5. Zhang, Y. and Bartels, R. (1998), "The effect of sample size on the mean efficiency in DEA with an application to electricity distribution in Australia, Sweden and New Zealand", *Journal of Productivity Analysis*, 9, 187-204.
6. Sharma, D. and Bartels, R. (1997), "Distributed electricity generation in competitive energy markets: A case study in Australia", *The Energy Journal*, (Special Issue), Distributed Resources: Toward a New Paradigm of the Electricity Business, 17-40.
7. Bartels, R., Fiebig, D.G., and Plumb, M. (1996), "Gas or electricity, which is cheaper?: An econometric approach with application to Australian expenditure data", *The Energy Journal*, 17(4), 33-58.
8. Bartels, R., Fiebig, D.G., and Nahm, D. (1996), "Regional end-use gas demand in Australia", *Economic Record*, 72, 319-331.
9. Bartels, R. and Fiebig, D.G. (1996), "Metering and modelling residential end-use electricity load curves", *Journal of Forecasting*, 15, 415-426.
10. Fiebig, D.G., Bartels, R. and Krämer, W. (1996), "The Frisch-Waugh theorem and generalised least squares", *Econometric Reviews*, 15, 431-443.
11. Krämer, W., Bartels, R. and Fiebig, D.G. (1996), "Another twist on the equality of OLS and GLS", *Statistical Papers*, 37, 277-281.
12. Bartels, R. and Fiebig, D.G., (1995), "Optimal design in end-use metering experiments", *Mathematics and Computers in Simulation*, 39, 305-309.
13. Fiebig, D.G., McAleer, M. and Bartels, R. (1992), "Properties of OLS estimators in regression models with non-spherical disturbances", *Journal of Econometrics*, 54, 321-334.
14. Bartels, R., Fiebig, D.G., Garben, M. and Lumsdaine, R. (1992), "DELMOD: An end-use simulation model", *Utilities Policy*, 2(1), 71-82.
15. Bartels, R. (1992), "On the power function of the Durbin-Watson test", *Journal of Econometrics*, 51, 101-112.
16. Bartels, R. and Fiebig, D.G. (1991), "A simple characterization of seemingly unrelated regressions models in which OLS is BLUE", *American Statistician*, 45, 137-140.
17. Fiebig, D.G., Bartels, R. and Aigner, D.J. (1991), "A random coefficient approach to the estimation of residential end-use load profiles", *Journal of Econometrics*, 50, 297-328.
18. Bartels, R. Cohen, R. and Hoehn, T. (1991), "Das neue Elektrizitätssystem in Grossbritannien: Erste Erfahrungen und Perspektiven", *Zeitschrift für Energiewirtschaft*, 1/91, 27-36.
19. Bartels, R. and Fiebig, D.G. (1990), "Integrating direct metering and conditional demand analysis for estimating end-use loads", *The Energy Journal*, 11(4), 79-97.
20. Bartels, R., Murray, J., and Weiss, A.A. (1988), "The role of consumer and business sentiment in forecasting telecommunications traffic", *Journal of Economic Psychology*, 9, 215-232.
21. Andrews G., Hall W., Goldstein G., Lapsley H., Bartels R., and Silove D. (1985), "The economic costs of schizophrenia: Implications for public policy", *Archives of General Psychiatry*, 42, 537-543.

22. Hall W., Goldstein G., Andrews G., Lapsley H., Bartels R. and Silove D. (1985), "Estimating the economic costs of schizophrenia", *Schizophrenia Bulletin*, 11, 598-611.
23. Bartels, R. (1985), "Identification in econometrics", *American Statistician*, 39, 102-104.
24. Bartels, R. (1984), "The rank von Neumann test as a test for autocorrelation in regression models", *Communications in Statistics*, A13(20), 2495-2502.
25. Bartels, R. (1984), "Estimation in a bidirectional mixture of von Mises distributions", *Biometrics*, 40, 777-784.
26. Bartels, R., Bornholt, G. and Hanslow, K. (1982), "The polynomial trend model with auto-correlated residuals", *Communications in Statistics*, A11(12), 1393-1402.
27. Bartels, R. (1982), "The rank version of von Neumann's ratio test for randomness", *Journal of the American Statistical Association*, 77, 40-46.
28. Bartels, R. (1981), "Truncation bounds for infinite expansions for the stable distributions", *Journal of Statistical Computation and Simulation*, 12, 293-302.
29. Bartels, R. and Goodhew, J. (1981), "The robustness of the Durbin-Watson test", *The Review of Economics and Statistics*, 63, 136-139.
30. Bartels, R. (1979), "Fractiles for the non-symmetric stable distributions", *Journal of Statistical Computation and Simulation*, 9, 127-132.
31. Bartels, R. (1978), "Generating non-normal stable variables using limit theorem properties", *Journal of Statistical Computation and Simulation*, 9, 199-212.
32. Bartels, R. (1977), "Estimation in a first order autoregressive scheme with non-normal stable disturbances", *Journal of Statistical Computation and Simulation*, 6, 35-48.
33. Bartels, R. (1977), "On the use of limit theorem arguments in economic statistics", *American Statistician*, 31, 85-87.

Contributions to refereed books

34. Bartels, R. (2002), "Seemingly unrelated regressions", in A. El-Shaarawi and W. Piegorsch (eds), *Encyclopedia of Environmetrics*, 1959-1961.
35. Bartels, R. Cohen, R. and Hoehn, T. (1992), "Markets for Electricity: The British system", in E. Hope and S. Strom (eds), *Energy Markets and Environmental Issues*, Scandanavian University Press, 87-114.
36. Bartels, R. and Fiebig, D.G. (1992), "Efficiency of alternative estimators in generalized seemingly unrelated regression models", in R. Bewley and T.V. Hoa (eds), *Contributions to Consumer Demand and Econometrics: Essays in Honour of Henri Theil*, Macmillan, 125-139.

Monographs

37. Bartels, R. (1988), *Household Energy Consumption: Analysis of the 1984 Energy Survey*, Department of Energy of NSW and the Electricity Commission of NSW, DOE88/102.
38. Bartels, R., D. Fiebig, D. Aigner and T. leRoux (1988), *Domestic End-Use Study*, Electricity Commission of New South Wales, PD 88/5.
39. Bartels, R. (1986), *Energy Modelling in Australia: A Constructive Analysis*, Department of Resources and Energy, WS86/021.
40. Bartels, R., P. Lopert and S. Williamson (1986), *The Residential Demand for Electricity*, Energy Authority of New South Wales, EA85/9.
41. Bartels, R. (1985), *Appliance Penetration and Household Energy Consumption*, Energy Authority of New South Wales, EA85/50.

42. Bartels, R., G. Goldstein, R. Resnick and H. Lapsley (1984), *The Cost of Acute Myocardial Infarction in New South Wales: An Incidence Based Study*, Report to Department of Health, Australian Government Printing Service.

Published conference proceedings

43. Bartels, R., D.G. Fiebig, and A. McCabe (2001), "The Value of Using Stated Preference Methods: A Case Study in Modelling Water Heater Choices," in F. Ghassemi, M. McAleer, L.Oxley and M. Scoccimarro, MODSIM 2001: Modelling and Simulation Society of Australia and New Zealand, ANU, Canberra, 1421-1426.
44. Bartels, R. and D.G. Fiebig (1999), "Evidence of joint decision making", Proceedings: International Congress on Modelling and Simulation, Hamilton, NZ, 1999, 325-330.
45. Bartels, R. (1999), "International benchmarking of the economic performance of electricity utilities", The Third International Symposium on Multinational Business Management, Nanjing, China.
46. Bartels, R. (1999), "The contribution of electricity demand to the CO2 emissions by Australian industry", 22nd International Association of Energy Economists Annual International Conference, Rome, 318-326.
47. Bartels, R., M. Smith and J. Louviere (1996),"The ordered beta model: Specification and estimation", Econometric Society Australasian Meeting, Vol 2, 663-676.
48. Bartels, R. and Y. Zhang (1996),"Are Australian electricity distributors more efficient?", Econometric Society Australasian Meeting, Vol 4,149-186.
49. Bartels, R., D.G. Fiebig, and M. Plumb (1996),"Gas or electricity, which is cheaper?: An analysis of household energy expenditures", Econometric Society Australasian Meeting, Vol 4,1996, 187-212.
50. Bartels, R. (1993),"The economic efficiency of electricity distribution in Australia", Proceedings, DISTRIBUTION 2000, 2nd International Electricity Distribution Conference, 7 pages.
51. Bartels, R., N. Crabb, P. Tang, G. Gangopadhyay, and D. Fiebig (1993), "Residential end-use study in NSW", 1993 ESAA Forecasting Forum, 18 pages.
52. Bartels, R (1992),"The effect of a carbon tax on Australian industry", Coping with the Energy Future: Markets and Regulations (Proceedings, 15th Annual Conference, International Association for Energy Economics), 11-16.

Book reviews

53. Bartels, R (1999), Review of: Pesaran, M.H. and Schmidt, P., Handbook of Applied Econometrics. Volume II: Microeconomics, 1997, Blackwell, in *Statistical Papers*, 40, 239.
54. Bartels, R (1998), Review of: Lütkepohl, H., Handbook of Matrices, 1996, Wiley, in *The Statistician*, 47(1), 225.
55. Bartels, R (1998), Review of: Davidson, F., Principles of Statistical Data Handling, 1996, Sage, in *The Statistician*, 47(1), 220-221.
56. Bartels, R (1996), Review of: Pollitt, M.G., Ownership and Performance in Electric Utilities, 1995, Oxford UP, in *The Energy Journal*, 17, 105-107.
57. Bartels, R (1996), Review of: Härdle, W. et al, XploRe: An Interactive Statistical Computing Environment, 1995, Springer-Verlag. in *The Statistician*, 45, 388-389.
58. Bartels, R (1978), Review of: Mumford, E. and Sackman, H., Human Choice and Computers, in *Australian Journal of Public Administration*, 37, 1978, 88-89.
59. Bartels, R (1977), Review of: Shubik, M., The Uses and Methods of Gaming, 1975, Elsevier, and Shubik, M., Games for Society, Business and War: Towards a Theory of Gaming, 1975, Elsevier, in *Australian Journal of Public Administration*, 36, 1977, 96-97.

Other articles and book contributions

60. Bartels, R (2015), "Reinterpreting R-squared, regression through the origin and weighed least squares", [https://www.researchgate.net/publication/283333191 Re-interpreting R-squared regression through the origin and weighted least squares](https://www.researchgate.net/publication/283333191_Re-interpreting_R-squared_regression_through_the_origin_and_weighted_least_squares)
61. Harrington, L. & R. Bartels (2004), "Statistical Basis for the Determination of Checktesting Validity Criteria, prepared for the National Appliance and Equipment Energy Efficiency Committee, <http://www.energyrating.gov.au/pubs/validity-statistics.pdf>", 1-27.
62. Bartels, R (1994), "Electric motors and industry energy efficiency", Electricity Supply Magazine, No17, Dec 1994, 4-5.
63. Bartels, R (1988), "Residential end-use electricity forecasting" in Electricity Generation Planning in an Uncertain Environment, G. McColl (ed.), Centre for Applied Economic Research, University of NSW, 1988, 113-122.
64. Bartels, R (1985), "Comments on two energy models" in Energy Modelling in Australia, Centre for Applied Economic Research, University of NSW, 1985, 128-132.
65. Bartels, R (1984), "The Donovan study of atomic test personnel: a critique", Sana Update, 19, 1984, p.16.

Unpublished conference papers

66. "Consumers and experts: An econometric analysis of the demand for water heaters", 2001 Econometric Society: Australasian Meetings, Auckland NZ, 2001. (with D. Fiebig and A. van Soest).
67. "The residential demand for electricity in New South Wales", Annual Conference of the Electricity Supply Engineers' Association of NSW, Sydney, 1985. (with P. Lopert and S. Williamson).
68. "Interest rates, the money supply and inflation", Third Conference of Economists, Adelaide, 1973. (with D.J. Jüttner).

Discussion papers (not published elsewhere)

69. "Constrained estimation of the Hildreth-Houck random coefficient model", University of Sydney, Department of Econometrics, Discussion Paper 90-02, January 1990 (with D. Fiebig).
70. "More on the grouped heteroskedasticity model", Tilburg University, The Netherlands, CentER Discussion Paper 9058, October 1990 (with D. Fiebig).
71. "Interest rates and price expectations", Macquarie University, School of Economic and Financial Studies, Research Paper No. 30, May 1973 (with D.J. Jüttner).
72. "Interest rates and the money supply", Macquarie University, School of Economic and Financial Studies, Research Paper No. 26, April 1973 (with D.J. Jüttner).