# Antony Fielding B. Sc. (Econ.), M. Sc., FSS, C.Stat. FHEA

# CURRICULUM VITAE July 2011

Date of Birth: 12.5.44 Married with three daughters Next of Kin: Alison Ann Fielding.

# **Education, Qualifications and Recognitions:**

GCE "O" Level (1959) 9 subjects.

GCE "A" Level (1961) History (with distinction),

Economics, Pure Mathematics.

GCE "A" Level (1992) Pure Mathematics (with distinction),

History (with distinction), Economics. GCE "S" Level (1962) History, Pure Mathematics.

1962 Awarded State Scholarship.

1962-1966 London School of Economics (University of London):

B.Sc. (Econ.), Specialism: Statistics.

M.Sc., Statistics and Operational Research.

1966 Elected FSS, Fellow of the Royal Statistical Society. 1993 Awarded Professional Status of C.Stat. (Chartered

Statistician).

2002 Member of the Institute of Learning and

Teaching, now Higher Education Academy.

#### **Career Posts to Date:**

2006- 2008 retired Professor of Social and Educational Statistics, University of

Birmingham

2003- 2006 Reader in Social and Educational Statistics, University of

Birmingham.

1976 - 2003 Lecturer then Senior Lecturer in Social Statistics,

University of Birmingham.

1972 - 1976 Lecturer in Statistics, London School of Economics,

University of London.

1966 - 1972 Assistant Lecturer and then Lecturer,

Department of Statistics, University of Edinburgh.

1965 -1966 Research Assistant, Unit for Economic and Statistical

Studies in Higher Education, London School of

Economics.

# Other Relevant Honours and Official Positions: 2010-2011 Member of Home Official

2010-2011	Member of Home Office Science Advisory Committee
2010-2011	Chair, Statistics sub-committee of Home Office Science Advisory Committee
2009-	Invited Chair of Data Monitoring and Ethics Committee , Systematic Therapy for at Risk Teens Project, University College London.
2008-	Visiting Professor, Centre for Multilevel Modelling, Graduate School of Education, University of Bristol
2008-	Research Collaborator, Behavioural Sciences Group, University of Cambridge
2009-	Elected Member of Council of the Royal Statistical Society
2006 -2008	Honorary Visiting Fellow Graduate School of Education, University of Bristol.
2006	Accredited as Fellow of the Higher Education Academy
2005	Appointed by Royal Statistical Society as Editor of its Journal (Journal of the Royal Statistical Society, Series A, Statistics in Society).
2005	Birmingham LEA: Governors Recognition Certificate for Services to Birmingham's Children.
2004	Prize Awarded for a Best Paper in Invited Presentations to 2 <sup>nd</sup> Workshop on Correlated Data Modelling, Scientific Meeting in Honour of Diego de Castro: Common Ideas in Biometrics and Econometrics, University of Turin (with Spencer, N.).
2003	Elected Member of the International Statistical Institute.
2003- 2007	Elected Chair of Social Statistics Section of the Royal Statistical Society
2002	International Association of Dental Research (IADR), San Diego, Educational Research Group Faculty Award for best paper (With Bullock A. D., Firmstone, V. R., Frame, J. W.).
2002	Accredited as a member of the Institute of Learning and Teaching
1999- 2005	Visiting Fellow, Centre for Multilevel Modelling (Institute of Education, University of London

1999	Awarded Visiting Research Fellowship, Economic and Social Research Council, Analysis of Large and Complex Datasets Programme.
1979-1982	Elected Councillor: Birmingham City Council
1980-1982	Member of Birmingham Local Education Authority and of its Finance and General Purposes Committee.
1966	Awarded Department of Scientific and Industrial Research Postgraduate Studentship

#### **Current and Projected Research Projects and Activities**

Evaluation of the Targeted Mental Health in Schools Programme (Co Applicant and Team member) 2008 -2012, *Department for Children Schools and Families (DCFS)*. (£1.5million)

As Visiting Professor on the ESRC National Centre for Research Methods, Learning Environment for Multilevel Methodology and Applications Node, I participate in an ongoing programme of on line training provision. This also involves training workshops the most recent of which was at Queens University Belfast

# **Recent Funded Research Projects**

Degree attainment, ethnicity and gender; analysis of quantitative evidence (Director), *Higher Education Academy*, 2008.

Testing the Trans-Theoretical Model in Adolescent Smoking Acquisition Cessation, Joint Director with P. Aveyard (Public Health, University of Birmingham) and S. Sutton (University of Cambridge), 2005-2007, Cancer Research UK. (£84,000).

The National Evaluation of the Children's Fund, Member of Tendering Team and Member of Research Team, 2002-2006, *Children and Young Persons Unit, Department for Education and Skills.* (£6 million).

Using Cross Classified Models to Improve Estimates of the Determination of Pupil Attainment. Phase 1: Literature Review and Scoping Analysis Investigation, Joint Director with H. Thomas (School of Education, University of Birmingham), 2005-6, *Value for Money Unit, Department for Education and Skills*. (£19,700).

# **Publications and Other Printed Work:**

#### Journal Articles

Guo, B, Fielding, A., Sutton, S.& Aveyard (2011), Psychometric properties of the processes of change scale for smoking cessation in UK adolescents. *International Journal of Behavioral Medicine*, 18(1):71-78

- Chevalier, A. & Fielding A. (2011) An introduction to anchoring vignettes, *Journal of the Royal Statistical Society, Series A (Statistics in Society)*, 174, 1, 569-574
- Aveyard, P., Guo, B, Fielding, A. & Sutton, S. (2011), What causes backward stage movement? Path analysis applied to a cohort of adolescent smokers. *Preventive Medicine* (forthcoming)
- Guo, B, Aveyard, P., Fielding, A. & Sutton, S. (2009), Do the Transtheoretical Model processes of change, decisional balance and temptation predict stage movement? Evidence from smoking cessation in adolescents. *Addiction*, 104(5), 828-38.
- Guo, B, Aveyard, P., Fielding, A. & Sutton, S. (2009), Using Latent Class and Latent TransitionAnalysis to Examine the Transtheoretical Model Staging Algorithm and Sequential Stage Transition in Adolescent Smoking. *Substance Use and Misuse*, 44, 2028-2042
- Guo, B, Aveyard, P., Fielding, A. & Sutton, S. (2009), The Factor Structure and Factorial Invariance for the Decisional Balance Scale for Adolescent Smoking. *International Journal of Behavioral Medicine*, 16, 158-163
- Guo, B, Aveyard, P., Fielding, A. & Sutton, S. (2008). Testing the convergent and discriminant validity of the Decisional Balance Scale of the Transtheoretical Model using the Multi-Trait Multi-Method approach. *Psychology of Addictive Behaviors*, 22(2), 288-294
- Fielding, A., Charlton, C. Leckie, G., Kounali, D. (2008) Degree attainment, ethnicity and gender:Interactions and the modification of effects (150pps) *Equality Challenge Unit, Higher Education Academy*.

  (http://www.heacademy.ac.uk/resources/detail/ourwork/research)
- Gunter, H., Rayner, S., Butt, G., Fielding, A., Lance, A., Thomas, H. (2007). Transforming the School Workforce: Perspectives on School Reform in England. *Journal of Educational Change*, 8, 25-39
- Spencer, N.H. & Fielding, A. (2007). Estimation and Comparison of Endogenous Ordered Category Multilevel Models. In D. Gregori, G. MacKenzie, H. Friedl, R. Corradetti (Eds.), *Correlated Data Modeling*, 303-320, Franco Angeli: Italy
- Fielding, A. and Yang, M. (2005). Generalised Linear Mixed Models for Ordered Responses in Complex Multilevel Structures: Effects Beneath the School or College in Education. *Journal of the Royal Statistical Society, Series A (Statistics in Society), 168, 1,* 159-183.
- Gunter, H., Rayner, S., Thomas, H., Fielding, A., Butt, G., Lance, A. (2005). Teachers, Time and Work: Findings from the Evaluation of the Transforming the School Workforce Pathfinder Project. *School Leadership and Management*, *5*, 441-454.
- Beauchamp, M., Bray, S., Fielding, A., Eys, A. (2005). A Multilevel Investigation of t Relationship between Role Ambiguity and Role Efficacy in Sport. *Psychology of Sport and Exercise*, *6*, 289-302.
- Butt, G., Lance, A., Fielding, A., Gunter, H., Rayner, S., Thomas, H. (2005). Teacher Job Satisfaction: Lessons from the TSW Pathfinder Project. *School Leadership and Management*, 25, 5, 455-471.
- Fielding, A. (2004). Invited Expert Comment on Papers by Draper & Gittoes and Bratti et al.: Special issue on Performance Monitoring. *Journal of the Royal Statistical Society*, *Series A (Statistics in Society)*, 167, 3, 497-498.
- Fielding, A. (2004). Scaling for Residual Variance Components of Ordered Category Responses in Generalised Linear Mixed Multilevel Models. *Quality and Quantity, The European Journal of Methodology, 38, 4,* 425-433.
- Fielding, A. (2004). The Role of the Hausman Test and Whether Higher Level Effects Should be Treated as Random or Fixed. *Multilevel Modelling Newsletter*, 16, 2, 3-9.
- Fielding, A. (2004). The Hausman Test of Random Effects Specifications (Abstract). In C. van Dinkum, J. Blasius, H. Kleijer and B. van Hilten (Eds.), *Proceedings of the* 6<sup>th</sup>

- *International Conference on Logic and Methodology, CD Rom ISBN 0-9067606-176X.* Amsterdam, The Netherlands Institute for the Social Sciences.
- Fielding, A. and Hughes, N. (2004). Indicator Data and Targeting Groups and Units in Implementing Preventative Measures. *National Evaluation of the Children's Fund, Online Conference on Understanding Prevention: Children, Families and Social Inclusion*, Published on the Web: http://www.ne-cf.org/conferences/.
- Fielding, A. and Spencer, N. (2004). Model Building and Interpretation of Ordinal Multilevel Random Effects Models with Exogeneity and Endogeneity. In A. Biggieri, E. Dreassi, Lagazio and M. Marchi (Eds.), *Proceedings of the 19<sup>th</sup> International Workshop on Statistical Modelling*. Firenze, Firenze University Press.
- Firmstone, V. R., Bullock, A.D., Fielding, A, Frame, J. W., Gibson, C. and Hall, J. (2004). The Impact of Course Attendance on the Practice of Dentists. *British Dental Journal*, 196, 2, 773-777.
- Corcoran, C., Douglas, G., Pavey, S., Fielding, A., McLinden, M., McCall, S. (2004). Network 1000: The Changing Needs and Circumstances of Visually-Impaired People, Project Overview. *British Journal of Visual Impairment*, 22, 93-100.
- Bullock, A. D., Firmstone, V.R., Fielding, A., Frame, J.W., Thomas, H. and Belfield, C.R. (2003). Participation of UK Dentists in Continuing Professional Development. *British Dental Journal*, 194, 1, 47-51.
- Fielding, A., Yang, M. and Goldstein, H. (2003). Multilevel Ordinal Models for Examination Grades. *Statistical Modelling*, *3*, 127-153.
- Fielding, A. (2003). Ordered Category Responses and Random Effects in Multilevel and Other Complex Structure. In N. Duane and S. Reise (Eds.), *Multilevel Modelling:*Methodological advances, issues and applications, Chapter 9, 181-208. Mahwah NJ, Erlbaum.
- Plewis, I. and Fielding, A. (2003). What is Multilevel Modelling for? A Critical Response to Gorard. *British Journal of Educational Studies*, *51*, *4*, 408-418.
- Bullock, AD, Firmstone, V.R., Fielding, A, Frame J.W. and Thomas, H. (2003). What Influence Do Dentists have on Patients' Views of Continuing Professional Development? A UK Study. *Journal of Dental Research*, 82, *Special*. American Association for Dental Research Abstract 1005.
- Bullock, AD, Firmstone, V.R., Fielding, A. and Frame J.W. (2002). The Impact of Course Attendance on the Practice of Dentists. *Journal of Dental Research*, 81, *Special*. International Association for Dental Research, Abstract 2463.
- Spencer, N and Fielding, A. (2002) A Comparison of Modelling Strategies for Value Added Analyses of Educational Data. *Computational Statistics*, 17, 1, 103-116.
- Fielding, A. (2002). Teaching Groups as Foci for Evaluating Performance in Cost-Effectiveness of GCE Advanced Level Provision: Some Practical Methodological Innovations. *School Effectiveness and School Improvement*, 13, 2, 225-246.
- Belfield, C. R. and Fielding, A. (2001). Measuring the Relationship Between Resources and Outcomes in Higher Education in the UK. *Economics of Education Review*, 20, 6, 589-602.
- Fielding, A. (2001). Scaling Variance Components for Ordinal Multilevel Models. In B. Klein and L. Korsholm, (Eds.) *New Trends in Statistical Modelling, Proceedings of the 16<sup>th</sup> International Workshop on Statistical Modelling.* Odense, University of Southern Denmark.
- Fielding, A. and Spencer, N. (2000). An Instrumental Variable Consistent Estimation Procedure to Overcome the Problem of Endogenous Variables in Multilevel Models. *Multilevel Modelling Newsletter*, 12, 1, 4-7.

- Fielding, A. (2000). Explanatory Modelling of Complex Social Structures with Case Studies in Educational Research. Expert presentation *to ESRC/BERA Advanced Training Workshop*, School of Education, The University of Birmingham.
- Fielding, A. and Yang, M, (2000). Generalised Linear Mixed Models for Ordered Responses in Multilevel and Other Complex Data Structures in the Social Sciences. In J. Blasius, J. Hox, E. de Leeuw, and P. Schmidt (Eds.), *Proceedings of the 5<sup>th</sup> International Conference on Logic and Methodology, CD Rom ISBN 0-90801073-8-7*. Cologne, TT-Publikaties.
- Fielding, A. (2000). Why Use Arbitrary Points Scores? Ordered Categories in Models of Educational Progress. *Journal of the Royal Statistical Society, Series A (Statistics in Society)*, 162, 3, 303-328.
- Belfield, C.R., Bullock, A.D. and Fielding, A. (1999). How Graduates Think Higher Education Contributes to Their Personal Development: A Retrospective Evaluation. *Research in Higher Education, Journal of the Association for Institutional Research*, 40, 4, 409-438.
- Fielding, A. (1999). Hierarchical Random Effects Models for Ordered Category Responses. In H. Friedl, A. Berghold, G. Kauerman (eds.), *Statistical Modelling: Proceedings of the* 14<sup>th</sup> International Workshop, 508-512. Graz, Technical University Graz.
- Fielding, A. (1999). Hierarchical Models for Ordered Responses: Contrasts with Scoring Grades in Educational Progress. *Bulletin of the International Statistical Institute*, 52<sup>nd</sup> Session, Lviii, CPB 3,339-340.
- Binner, J. M., Fielding, A. and Mullineux, A. W. (1999). Divisia Money as a Leading Indicator of Inflation. *Applied Economics*, *33*, 120-132.
- Spencer, N. and Fielding, A. (1998). A Comparison of Modelling Strategies for Value Added Analyses of Educational Data. In B. Marx & H. Friedl (Eds.), *Statistical Modelling: Proceeding of the 13<sup>th</sup> International Workshop on Statistical Modelling*. Baton Rouge, Louisiana State University.
- Fielding, A., Belfield, C. R. and Thomas, H. (1998). The Consequences of Drop-Outs on the Cost-Effectiveness of Colleges. *Oxford Review of Education*, *24*, *4*, 487-511.
- Fielding, A. (1998) Methodological Innovations in the Use of Teaching Groups for Evaluating Cost- Effectiveness. *International Congress on School Effectiveness and Improvement 1998 Proceedings, CD Rom ISBN 0-902252-62-3*, School of Education, University of Manchester.
- Fielding, A. (1997). Perspectives on Performance Indicators: GCE Advanced Level and Differences between Institution Types in Cost Effectiveness. *School Effectiveness and School Improvement*, *9*, *2*, 218-231.
- Fielding, A. (1997). On Scoring Ordered Classifications. *British Journal of Mathematical and Statistical Psychology*, 50, 1-23.
- Fielding, A., Spencer, N., Belfield, C. R. and Thomas, H. (1997). Modelling Cost-Effectiveness of A Level: Some Methodology), *Applied Econometrics Association Proceedings*.
- Fielding, A. and Spencer, N. Modelling Cost-effectiveness in General Certificate of Education: Some Practical Methodological Innovations. In C. E. Minder and H. Friedl (Eds.), Good Statistical Practice., Proceedings of the 12th International Workshop on Statistical Modelling, Schriftenreihe der Osterreichischen Statistischen Gesellschaft, (Austrian Statistical Society), Band 5, 155-159.
- Belfield, C.R., Bullock, A. D., Chevalier, A., Fielding, A., Siebert, W.S. and Thomas, H. (1997). *Mapping the Careers of Highly Qualified Workers*, HEFCE Research Series 1. Bristol, Higher Education Funding Council for England.
- Fielding, A. (1996). Determining Adequate Sample Size: A Statistical Consultant's Advice in a Legal Brief. *Teaching Statistics*, 18, 1, 6-9.
- Fielding, A. (1994). Institutional Disparities in the Cost Effectiveness of GCE 'A' Level Provision: A Multilevel Approach. *Education Economics*, *3*, 2, 159-172.

- Fielding, A. (1994). More on Education League Tables, How Differentially Effective are Different Types of 'A' Level Provision. *Radical Statistics Newsletter*, 57, 21 29.
- Fielding, A. (1993). Multilevel Modelling of the Cost- Effectiveness of Different Forms of Provision for the General Certificate of Education at 'A' level in England and Wales. *Bulletin of the International Statistical Institute, CP, Book 1,* 445-446.
- Fielding, A. (1993). Scoring Ordered Classifications in Statistical Analysis. *Quality and Quantity, the European Journal of Methodology*, 27, 1-17.
- Fielding, A. (1981) Official Statistics of Education in the UK: A Description of Sources and an Appraisal. *Review of Public Data Use*, *6*, 23-30.
- Fielding, A., O'Muircheartaigh, C. A. and Ecob, J. R. (1980) Further Results on an Empirical Investigation of AID With and Without Modified Criterion. In M. Barritt and D. Wishart (Eds.), *COMPSTAT 1980, Proceedings in Computational Statistics*. London, Physica Verlag.
- Fielding, A. (1978). Statistics of Education. *Quantitative Sociology Newsletter*, 20, 1-24.
- Fielding, A. and Shepherd, J. W. (1976). An Application of AID in Research on Educational Deprivation. *Quantitative Sociology Newsletter*, 17, 1-19.
- Fielding, A., and O'Muircheartaigh C. A. (1977). Binary Segmentation in Survey Analysis with Particular Reference to AID. *The Statistician*, *26*, 17-28.
- Fielding, A. (1976). Latent Structure Models. In C. A. O'Muircheartaigh and C. D. Payne (Eds.), *The Analysis of Survey Data*, 221-257. London, Wiley.
- Fielding, A. (1976). Binary Segmentation: The Automatic Interaction Detector and Related Techniques for Exploring Data Structure. In C. A. O'Muircheartaigh and C. D. Payne (Eds.), *The Analysis of Survey Data*, 221-257. London, Wiley.
- Fielding, A. (1972). Contribution to the Curriculum for a General Course, SSRC Seminar on Teaching of Teaching of Statistics in the Social Sciences Report. *International Journal of Mathematical Education in Science and Technology*.
- Fielding, A. (1969). Statistics, Volume II. Cambridge, National Extension College.
- Fielding, A. (1969). Scientific Education and the Use of Manpower. *New Edinburgh Review*, University of Edinburgh.
- Fielding, A. (1969). Dr Pedley's Comprehensive University. In C. Lindsay, D. Gowan, R. Cuddihy (Eds.), *The Red Paper in Education*. Edinburgh, Islander Publications.

# Official and other Research Reports

- National Evaluation of Targeted Mental Health in Schools Team (2010) *Me and My School: Preliminary Findings of TaHMS* (2008-2009) . Department for Children, Schools and Families
- Cohen, G., Fielding, A., Waterton, J. (2010) Measurement of Participation in Scottish Higher Education. *Scottish Government Social Research*
- Fielding, A., Charlton, C. Leckie, G., Kounali, D. (2008) Degree attainment, ethnicity and gender:Interactions and the modification of effects. *Equality Challenge Unit, Higher Education Academy*.
- National Evaluation of the Children's Fund Team.(2006) *Final Report of the NECF. Research Report RR734*, London Department for Education and Skills IBSN 1 84478 716 8
- Hughes, A and Fielding, A. (2006) Targeting Preventative Services for Children:

  Experiences from the Children's Fund Research Report RR777, London Department Education and Skills, IBSN 1 84478 70 2
- Fielding, A. and Goldstein H (2006) Cross-Classified and Multiple Membership Structures in Multilevel Models: An Introduction and Review. Research Report RR791, London. Department for Education and Skills IBSN 1 84478 797 2
- Fielding, A. (with assistance from H.Thomas, I. Davison, F. Steele, A. Leyland, W. Browne,

- N. Spencer). (2006). Using Cross-Classified Multilevel Models to Improve Estimates of the Determination of Pupil Attainment: A Scoping Study, Research Report for Department for Education and Skills, School of Education, University of Birmingham, IBSN: 9780704426016 (International) 0704426013 (UK).
- National Evaluation of the Children's Fund Team (cited joint author). (2005). Children, Young People, Parents and Carers' Participation in Children's Fund Case Study Partnerships. Department for Education and Skills, Research Report 602.

  National Evaluation of the Children's Fund Team (cited joint author). (2005). Prevention and Early Intervention in the Social Inclusion of Children and Young People.

  Department for Education and Skills, Research Report 603.
- National Evaluation of the Children's Fund Team (cited joint author). (2004). Collaborating for the Social Inclusion of Children and Young People: Emerging Lessons from the First Round of Case Studies. *Department for Education and Skills, Research Report* 596.
- National Evaluation of the Children's Fund (cited joint author). (2004). Assessing the Impact of the Children's Fund: The Role of Indicators. NECF, University of Birmingham.
- National Evaluation of the Children's Fund Team (cited joint author). (2004). Developing Collaboration in Preventative Services for Children and Young People: The National Evaluation of the Children's Fund's First Annual Report. *Department forEducation and Skills, Research Report 528*.
- Thomas, H., Butt, G., Fielding, A., Foster, J., Gunter, H., Lance, A., Pilkington, R., Potts, E., Powers, S., Rayner, S, Rutherford, D., Selwood, I., Szwed, C. (2004). The Evaluation of Transforming the School Workforce Pathfinder Project. *Research Report 541*, *Department for Education and Skills*.
- Thomas, H., Butt, G., Fielding, A., Foster, J., Gunter, H., Lance, A., Rayner, S., Rutherford, D., Potts, E., Powers, S., Selwood, I., Szwed, C. (2004). Transforming the School Workforce Pathfinder Evaluation Project. *Research Brief RBX 03-04*, *Department for Education and Skills*.
- Children and Young Person's Research Group, University of Birmingham (cited joint author) (2002). Feasibility Study of the National Evaluation of the Children's Fund. *Research Report for Children and Young Persons Unit, Department of Education and Skills.*
- Fielding, A. (2002) Contributing Consultant to Official Report on Retention and Achievement in Higher Education, National *Audit Office*.
- Firmstone, V. R. Bullock A.D., Frame J.W., Fielding, A., Gibson, C. J. Hall, J. Thomas, D. and Belfield. C.R. (2002) The Type, Volume and Impact of Continuing Professional Development for General Dental Practitioners, *Final Report, project RDO/90/48 for NHS Executive*, School of Education, University of Birmingham, 99 pages. ISBN: 070442388X.
- Firmstone, V. R. Bullock A.D., Frame J.W., Fielding, A., Gibson, C. J. Hall, J. Thomas, D. and Belfield. C.R. (2002). The Type, Volume and Impact of Continuing Professional Development for General Dental Practitioners *Source Book, Department of Health, RDO/90/48*, The University of Birmingham, School of Education, 155pp pages.
- Fielding, A. (2001) Contributing Consultant to Official Report on Retention and Achievement in Further Education. *National Audit Office*.
- Fielding, A. (1999). Multilevel Modelling of Graded Categorisations with Mixed Hierarchies and Non-Standard Assumptions. *Report on Award HS1944500497, Economic and Social Research Council.*
- Belfield, C.R., Bullock, A. D., Chevalier, A., Fielding, A., Siebert, W.S. and Thomas, H. (1997). Mapping the Careers of Highly Qualified Workers. *Research Report to Higher Education Funding Council for England*.

- Belfield C.R., Thomas, H. and Fielding, A. (1995) Costs and Performance of A Level Provision in the Further Education Sector. *Research Report to Association of Principals in Sixth Form Colleges*.
- Belfield C.R., Fielding, A., and Thomas, H. (1995). Costs and Performance of A Level Provision in Schools. *Research Report to the Department for Education and Employment*.
- Fielding, A., O'Muircheartaigh, C. A. and Ecob, J. R. (1978). An Investigation of the Sampling Properties of the Automatic Interaction Detector. *Report on Grant HR 2647 Social Science Research Council*, *1-221*.
- Fielding, A. (1970). Course Length, Dropout and Progress in British Universities. *Research Report to the University Grants Committee*.
- <u>On line training material</u>: Fielding, A (2011) Module 8, Multilevel Modelling in Practice: Research
  - Questions, Data Preparation and Analysis. ESRC National Centre for Research Methods, Learning Environment for Multilevel Methodology and Applications: (http://www.cmm.bris.ac.uk/lemma/)
- Fielding, A. and Pillinger R. (2008): Module 1, Using Quantitative Data in Research: Concepts and Definitions, ESRC National Centre for Research Methods, Learning Environment for Multilevel Methodology and Applications: (http://www.cmm.bris.ac.uk/lemma/)
- Fielding, A. and Pillinger R. (2008): Module 2, Introduction to Quantitative Data Analysis ESRC National Centre for Research Methods, Learning Environment for Multilevel Methodology and Applications: (http://www.cmm.bris.ac.uk/lemma/)

#### *Software*

Fielding, A. (1999). ORDCATY: An MLwiN Macro for Ordered Category Responses and Cross-Classified Random Effects Structures. MLwiN Multilevel Models Project, Institute of Education, University of London.

#### Discussion Papers

- Spencer, N.H. & Fielding, A. (2004). Estimation and Comparison of Endogenous Ordered Category Multilevel Models. *University of Hertfordshire Business School Working Paper*, *UHBS* 2004:4.
- Fielding, A. (2000). Scores and Categories for Ordinal Responses in Multilevel and Weighted Random Effects Models. *University of Birmingham Department of Economics*, *Discussion Paper Series*, 00-02.
- Abdullah, S., Fielding, A., Mullineuex, A. W. Spanjers, W.S. (2000). Intra-Household Resource Allocation and Bargaining Power of the Women using Micro-Credit in Bangladesh . *University of Birmingham Department of Economics, Discussion Paper Series*, 04-01.
- Spencer, N.H. & Fielding, A. (2000). A Comparison of Modelling Strategies for Value-Added Analyses of Educational Data. *University of Hertfordshire Business School, Statistics Technical Report 2, UHBS* 2000:7.
- Fielding, A. (1999). Random Effects Models for Ordered Category Responses. *University of Birmingham Department of Economics, Discussion Paper Series* 99-20.
- Fielding, A. (1998). Value Added Analysis for Cross-Classified Multilevel Data. *University of Birmingham Department of Economics, Discussion Paper Series* 98-15.
- Fielding, A. (1998). *Teaching Groups as Foci for Evaluating GCE Advanced Level Cost-Effectiveness*. University of Birmingham Department of Economics Discussion Paper Series, 98-18.

- Fielding, A., Belfield, C. R. and Thomas, H. (1997). The Consequences of Drop-Outs on the Cost-Effectiveness of Colleges. *University of Birmingham Department of Economics, Discussion Paper Series* 97-17.
- Fielding, A., Belfield, C. R. and Thomas, H. (1997). Performance and Cost-effectiveness in GCE Advanced Level in the FEFC Funded Sector. *University of Birmingham Department of Economics, Discussion Paper Series* 97-20.
- Fielding, A. (1996). On Scoring Ordered Classifications. *University of Birmingham, Department of Economics Discussion Paper Series*, 96-10.
- Fielding, A. (1995).Cost Effectiveness in `A' level courses. The Effect of Subject: A Multilevel Approach. *University of Birmingham, Department of Economics Discussion Paper Series*, 95-21.
- Fielding, A. (1994).GCE Advanced Level: Institutional Cost Effectiveness. *University of Birmingham, Department of Economics, Discussion Paper Series*, 94-19.
- Fielding, A. (1993) Institutional Disparities in the Cost Effectiveness of G.C.E. 'A' level Provision: A Multilevel Analysis. *University of Birmingham, Department of Economics, Discussion Paper Series*, 93-10.
- Fielding, A. (1992). An Axiomatic Approach to Scoring Ordered Classifications. *University of Birmingham Department of Economics Discussion Paper Series*, 92-06.
- Fielding, A. (1991). Scoring Ordered Classifications in Statistical Analysis. *University of Birmingham, Department of Economics, Discussion Paper Series*, 91-15.
- Fielding, A. (1987). Determining Adequate Sample Sizes: *University of Birmingham, Faculty of Commerce and Social Sciences Discussion Paper, Series E*, 32.
- Fielding, A. (1978). Official Statistics of Education. *University of Birmingham Faculty of Commerce and Social Sciences, Discussion Paper Series E,* No 32,
- Fielding, A. and O'Muircheartaigh C. A. (1978). An Evaluation of the Automatic Interaction Detector on Real and Simulated Data Sets. *University of Birmingham Faculty of Commerce and Social Sciences, Discussion Paper, Series E*, No. 30.
- Fielding, A. and O'Muircheartaigh C. A. (1977). Critical Values for the Splitting Criterion in the Automatic Interaction Detector (AID) Algorithm. *University of Birmingham Faculty of Commerce and Social Sciences, Discussion Paper Series E*, No. 29.

#### Other miscellaneous written work

- Fielding A. (2003).Research Methods for Education, Module 3 of Research Training, 2003; Quantitative Analysis 1: Describing and Exploring Data; Principles of Sampling, Quantitative Analysis 2: Statistical generalisation, Comparing groups and Evaluating relationships, The General Linear Model Quantitative Analysis 3: Summarising Multivariate Data.

  School of Education, University of Birmingham (Printed course material)
- Fielding A. (1997). Lecture Notes on Introductory Econometrics B. (Unpublished course material).
- Fielding A. (1989), Lectures *on Introductory Applied Statistics: A Course Text* (with assistance of J.Linzell. Unpublished course material).
- Fielding A. (1986). *Introductory Econometrics, Worked Problems and Solutions* (Unpublished course material).
- Fielding A. (1985). An Algorithm for Applying Chi-square Procedures for Compounded Functions of Proportions for Scoring Ordered Classifications (Unpublished mimeo).
- Fielding A. (1984). The Scoring of Ordered Classifications (Unpublished mimeo).
- Fielding A. (1982) Written contributions to *Reading Between the Numbers; A Critical Guide to Educational Research*, Radical Statistics Education Group, British Society for Social Responsibility in Science.

- Fielding A. and Shepherd, J. W. (1973). The Sampling Stability of the Automatic Interaction Detector Technique. *Contributed paper to the 16<sup>th</sup> Session of the International Statistical* (Unpublished mimeo).
- Fielding A. and O'Muircheartaigh C A. (1973). Applications of Binary Segmentation in Survey Analysis. *General Applications Section of the Royal Statistical Society*. (Unpublished mimeo)
- Fielding A. (1972) .Rationality in Post School Education. *Kingston Polytechnic Occasional Papers*.
- Fielding A. (1970). The Impact of the Academy Dominated Framework on Pupil and Student Motivation: An Extension and Reply to A F McPherson; Academy and Economy. *University of Edinburgh Faculty of Social Sciences International Seminars on Scientific Manpower*. (Unpublished mimeo).

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# **Teaching and Examining**

# **Teaching: 2003-2008**

# <u>Undergraduate</u>

Introductory Econometrics (year 2).

Economics of Infrastructure and Public Expenditure (year 2).

Topics in Social Statistics (year 3).

Applied Econometrics (Year 3).

#### **Postgraduate**

Applied Econometrics.

Initial Quantitative Methods for Graduates.

Research Methods Training for Research Students: School of Education.

Tutorial Work, Extended Essay and Masters Dissertation supervision.

Ph.D.supervision and successful thesis completion of students in School of Education, and the Department of Economics .Most recent PhD student working on rate of return to education in China successfully completed 2007

# Other teaching over career at the University of Birmingham:

PG= Postgraduate Teaching

UG=Undergraduate Teaching

Applied Statistics & Model Building (UG).

Decision Theory (UG).

Econometric Theory (UG).

Topics in Social Statistics for Mathematics and Statistics degree (UG).

Economics of Education (UG).

Introduction to Econometrics A.

Statistics I (first course for Social

Science Students) (UG).

Introductory Applied Statistics (UG).

Topics in Econometrics (PG).

Graduate Social Statistics (PG).

Planning of Spreadsheet Based First year course in Applied Economics (1993).

#### London School of Economics

Statistical Methods in Social Research (UG).

Statistical Methods for Psychology (PG).

Elemental Statistical Theory (UG).

Further Statistical Methods (PG -non-specialist).

Distribution Free Statistics (PG).

Selected Topics in Model Building (PG).

Social Applications of Multivariate Data Analysis (PG).

Organisation of Applied Statistics Seminars.

Supervision of 3rd year Statistics Projects.

Supervision of M.Sc. Students Projects.

Research Student Supervision.

#### *University of Edinburgh:*

Methods of Social Research and Analysis (UG).

Elementary Statistical Methods (UG).

Applied Topics in Social Research (PG).

Qualitative Data Analysis (PG).

Distribution Free Methods (PG).

Stochastic Model Building (PG).

#### Other Teaching Experience

Variety of Research Workshops on Multilevel Modelling and use of MLwiN.

Visiting Lecturer, University of Leicester, (Spring 1990).

Visiting Lecturer, University of Bristol (1987).

Visiting Lecturer, University of Aston: M.Sc. in Operational Research and MBA (1979).

University of London, Commerce Degree Bureau, Course Writer and Tutor: External B.Sc. (Econ.) (1976-86).

National Extension College: Correspondence Tutor (1970-1990).

Open University: part-time tutor and summer school tutor for Foundation Course in Mathematics and Second Level Course in Statistics (1971-1977).

Course Supervisor in Statistics for evening course degree students, Goldsmith's College, London. (1972-1974).

Adult Education: Statistics and Quantitative Methods in Management: University of Edinburgh Extramural Department. (1967-1970).

# Examining Experience

ESRC Studentships: Open Competition and panel of reviewers 2006-

Internal for various degree courses and theses in Edinburgh, Birmingham and London.

Visiting: University of London, BSc (Econ) for External Students and Diploma for External Students. (1994 –2000, 2005- 2009).

External: Ph.D., University of London, Institute of Education, (1984, 1992, 2001).

External: M.Phil. in Education, University of Durham (2002).

External: BA Social Sciences, University of Westminster, (1992-5)

External: M.Sc. in Educational Statistics, London, Institute of Education. (1985-1991).

1993, 1996).

External: BA (Hons) in Accounting, City of Birmingham Polytechnic, (1988-1992). Examiner: B.Sc. (Econ) for External Students: University of London, (1973-1980). Moderator and Examiner, Interpretation of Statistics: Civil Service Entrance Examinations (1976-83).

External: M.Phil. in Statistics, London School of Economics, (1981).

# **Management and Administration**

# Administrative duties during career at Birmingham include:

Departmental Senior Tutor and Chair of Undergraduate Staff Student Committee.

Elected Staff Member of Board of School of Social Sciences.

Departmental Library Officer.

Departmental Statistics Officer.

Leader Departmental Econometrics Research Group (2006-2008)

Committee Membership: 1st Year Standing Committee, Undergraduate Admissions

Committee, Examination Rules and Procedures Committee, Faculty Computer Committee, and Various Working Parties (Commerce and Social Sciences Faculty and School of Social Sciences).

Member of Senate Advisory Service Committee and Education Development

Committee, The University of Birmingham. (early 1980s).

Departmental Representative for the E.S.R.C. Survey Archive.

Advisory Service Workshops on Teaching Skills: Co-organiser. (early 1980s).

Department Examinations Officer, The University of Birmingham (1988-1993).

Member of Board of Faculty of Commerce & Social Science, University of Birmingham (to 1998).

Convenor of Elected Staff Representatives, Faculty Board.

Elected member of Senate, University of Birmingham (to 2003).

Admissions Tutor (Economics and Statistics and Mathematical Economics

Programmes), (1982-2001).

Member of the School of Social Sciences WP on Research Methods 2002.

# Selected administration prior to Birmingham

Committee member of University of Edinburgh Association of University Teachers.

University of Edinburgh delegate to the National Council of A.U.T.

Member of LSE Academic Board and Publications, Careers Advisory Service and Undergraduate Studies Committees.

Department Academic Secretary of the LSE Department of Statistics.

# **Consultancy activities**

# Consultancy (over the past seven years)

Northern Ireland Education Dept: Sampling for controlled trials

Birmingham LEA: Projecting Special Educational Needs Pupils

Reading LEA: Value added from baseline to Key Stage 1

Pocklington Trust: Prevalence, causes and impact of sight loss in older people in Britain

Learning and Skills Council. Value added and distance travelled in further education.

Scottish Funding Council: The shape of statistical requirements for the new funding council

Sheffield Local Education Authority. Statistical consultant (2004-2008)

Walsall LEA (2004). Use of deprivation indicators for resource allocation.

The National Foundation for Educational Research (2004). Cost–effectiveness of home support.

Department for Education and Skills. The Atkinson Review (2003) on measurement of central government inputs and outputs in the UK's National Accounts. Invitation to be considered for peer review board.

National Audit Office (2001-3). Retention and progress in higher and further education.

University of London External Degrees Board (2001) Expert consultant on course planning and material

#### Other comments on consultancy

At the London School of Economics I was an appointed consultant to the Higher Education Research Unit. I have engaged over my career in consultancy work in Survey Design and Analysis and Statistical Analysis with many internal researchers and on ad hoc basis external agencies involved in social research and methodology. Inside my own institutions, I have over my career, and particularly in the middle of its range, spent a good deal of my time acting in a general capacity as consultant to various individuals and projects involved in social science and methodological research (Many examples may be provided.) This professional work though highly important as an integral part of my role is often not transparent and cannot be itemised on a formal CV. However, some of this consultancy has been beneficial in occasionally stimulating my methodological research.

Also since my role as a social statistician also involves much involvement with computer applications and associated technology I have over my career often been involved in much active consultancy work sessions in this area . I have familiarity and experience with a wide range of computer software and programming languages such as SPSS, STATA, TSP, MINITAB, MLwiN, TWIN, EXCEL, GAUSS, MATHEMATIKA, DERIVE, LIMDEP, GLIM, MPLUS, HLM, and LATENTGOLD.

#### **Professional Activities and Other Information**

#### Current and past 7 years

Elected member of Council of the Royal Statistical Society Council (2009-current to 20013.

Appointed Editor Journal of the Royal Statistical Society, Series A (2005-June 2011).

Associate Editor, Effective Education (2009-cuurrent)

Associate Editor, Longitudinal and Life Course Studies (2008-current)

Associate Editor, Journal of the Royal Statistical Society, Series A (2002-2005).

Chair, Social Statistics Section, The Royal Statistical Society, (2003—2007).

Secretary, Social Statistics Section, The Royal Statistical Society(2007-current)

Committee member, Birmingham and District Local Group, The Royal Statistical Society, (2002—current).

Member of Committee, General Applications Section (2006-2010)

Member of 2008 Annual Conference Organising Committee (2007-2009)

Member of 2009 Annual Conference Organising Committee (2008-2009)

Member of 175<sup>th</sup> Anniversary Working Group (2008-2009)

Represent the Royal Statistical Society on a Variety of outside bodies including the National Statistics Users Forum.

Royal Statistical Society Organiser for 2005 Conference on Maximising Data Value.

# Selected other activities both past and present

Frequent peer reviewer for articles submitted to journals such as the Journal of Royal Statistical Society, the Economic Journal, Bulletin of Economic Research, Education Review, Biometrics, Journal of Econometrics, Assessment in Education, Teaching Statistics, Journal of Educational and Behavioural Statistics, Statistical Modelling and others (examples may be provided).

Frequent peer reviewer for research grant applications from ESRC and Nuffield Foundation (examples may be provided).

Rapporter for ESRC research grant final reports (examples may be provided).

Frequent book reviewer for Statistical and Methodological Journals (examples may be provided).

Book proposal reviewer for publishers (examples may be provided)

Memberships and Fellowships of professional associations, learned societies and groups. (E.g. Royal Statistical Society, Association for Survey Computing, ESRC Survey Methodology Group, Longitudinal and Multivariate Data Analysis Group, International Association of Survey Statisticians, International Association for Statistical Education, International Congress on School Effectiveness and Improvement, British Educational Research Association).

Organiser, Annual Conference of the Association of Statistics Lecturers in Universities, Birmingham, September (1995).

Organiser, Radical Statistics Conference and AGM, Birmingham (1993 and 1994)

Vice- Chairman and National Committee Member, Association of Statistics Lecturers in Universities (1994 -2001).

Member, Department of Education and Science, Assessment of Performance Unit, Steering Committee on Statistical Test Validity, (1980-82)

Member of Associated Examination Board, Research Advisory Committee. (1986-1991).

Former Statistics Editor of the British Sociological Association Quantitative Sociology Newsletter.

City of Birmingham Councillor and Member of Local Education Authority (1979-82). Former chair of one School Governing Body and currently member of two others (over 25 year's service)

# **Courses and Staff Development since 1993**

Basic and Advanced WordPerfect.

Introduction to BIDS database system.

Introduction to the IBM Server.

Use of Birmingham High Speed Computer Network.

Excel for Windows.

Lecturing to Large Groups.

Lecturing and Discussions with more students: Issues of Quality Assessment.

Time Management.

Using LAN workplace software.

Round the world in 60 minutes: Use of internet and WWW.

WordPerfect for Windows.

Word for Windows.

Regression Graphics (given by D Cook in Birmingham).

Presentations Skills.

Stress in the Workplace, Staff Development Unit.

Use of Internet.

X-Windows for Unix.

Random effects in Generalised Linear Models, University of Lancaster, (ESRC bursary).

Level 3 French, Modern Languages Unit, 1993/94

Level 1 Italian, Modern Languages Unit 1994/95.

Level 2 Italian, Modern Languages Unit, 1995/96.

Level 3 Italian, Modern Languages Unit 1996/7.

Level 4 Italian, Modern Languages Unit 1998/9.

Linear Structural Relations (LISREL), 3 day course by K. Joreskog, LSE, April 1997

Friends of MLwiN pre-launch workshop, Jan 1998, London Institute of Education.

Advanced workshop: Multilevel Models for Education, Feb 1998, London Institute of Education.

Monte- Carlo Markov Chains in Hierarchical Modelling, April 1998, London Institute of Education.

Managing personal Web pages using Front Page, October 1999.

Staff Development reviewers training course, 2000.

Mixed and Random Effects Modelling using SAS, Medical Statistics Research Unit, University of Edinburgh, 2003.

Methods for Causal Analysis and their application within STATA, Royal Statistical Society short course, Manchester 2004.

Advanced Topics in Missing Data, ESRC Research Methods Programme, 2004.

# **Conference and Seminar Paper Presentations:**

- Royal Statistical Society, Edinburgh 2010, (with P.Tymms and J.Little)
- ESRC National Centre for Research Methods, Research Methods Festival, Oxford 2008
- The Sixth Amsterdam Conference on Multilevel Modelling, University of Amsterdam, April 2007 (with Fiona Steele)
- ESRC Research Methods Programme, Research Methods Festival, Oxford 2006
- Social Statistics Section, Royal Statistical Society, June 2006
- British Educational Research Association Annual Conference, University of Manchester, Sept 2004, (presentation by H.Thomas on joint behalf).
- The 19<sup>th</sup> International Workshop on Statistical Modelling, Firenze, Italy, July 2004, (tabled in absentia).
- The 6<sup>th</sup> International Conference on Social Science Methodology, RC33: Logic and Methodology, Amsterdam, Aug 2004.
- 2<sup>nd</sup> International Workshop on Correlated Data Modelling: Common Ideas in Biometrics and Econometrics, Torino, Jan 2004 (with N Spencer, prize award).
- ESRC Research Group Seminars: Microfinance and Rural Poverty Reduction, London, Oct 2003 (presentation by S. Abdullah on joint behalf).
- The Fourth Amsterdam Conference on Multilevel Modelling, University of Amsterdam, April 2003.
- The 16<sup>th</sup> International Workshop on Statistical Modelling, Odense, Denmark, July 2001.
- School of Mathematics and Statistics, University of Birmingham, Research Seminar, Dec, 2001.
- The Third Amsterdam Conference on Multilevel Modelling, University of Amsterdam, April 2001.
- Department of Economics, University of Birmingham, Research Workshop, Feb, 2001.
- The 5<sup>th</sup> International Conference on Logic and Methodology; Social Science Methodology in the New Millennium, Cologne, October 2000.
- 22<sup>nd</sup> Biennial Conference of the Society for Multivariate Analysis in the Behavioural Sciences, London, July 2000.
- University of Hertfordshire Statistics Seminar, March 2000
- Multilevel Models Project, Institute of Education, Fellows Group meeting, November 1999
- Congress of the International Statistical Institute, Helsinki, August 1999.
- The 14<sup>th</sup> International Workshop on Statistical Modelling, Graz, Austria, July 1999.
- Department of Economics, University of Birmingham, Research Workshop, April 1999.
- University of Edinburgh/Napier University Joint Statistics Seminar, April 1999
- The Second Amsterdam Conference on Multilevel Modelling, University of Amsterdam, April 1999
- Royal Statistical Society Conference on Applications of Random Effects Models to Categorical Data in Social and Medical Sciences, read before the Society, October 1998.
- The 15<sup>th</sup> International Workshop on Statistical Modelling, New Orleans, USA, July 1998 (read on our joint behalf by N.Spencer).
- Royal Statistical Society Birmingham Local Group, January 1998.
- The 11<sup>th</sup> International Congress on School Effectiveness and Improvement, University Of Manchester, January 1998.
- The 14<sup>th</sup> International Workshop on Statistical Modelling, Biel/ Bienne, Switzerland, July 1997.
- Society for Research in Higher Education / Higher Education Funding Council,

Workshop on Current Issues in Higher Education Research, London, June 1997.

Applied Econometrics Association, Educational Models, University of Maastricht, May 1997.

Higher Education Funding Council Staff Seminar, Bristol, March 1997.

Economics Department Workshop, University of Birmingham, Feb 1997.

European Society for Research in Education, Seville, Spain, Sept 1996

British Educational Research Association Annual Conference, University of Lancaster, Sept 1966.

Royal Statistical Society International Conference, University of Surrey, July 1996.

ESRC Money Research Group, June 1996.

Economics Department Workshop, University of Birmingham, April 1996.

Royal Statistical Society Conference, RSS 95, University of Wolverhampton, July 1995.

ESRC Study Group on the Economics of Education, Feb, 1995.

Royal Statistical Society International Conference, Newcastle, September 1994

Civil Service College Symposium on New Techniques in Economic Appraisal, July 1994.

University of Birmingham, Economics Department Seminar, March 1994.

International Statistical Institute, 49th Session, Firenze, 1993.

University of Birmingham, Economics Department, Seminar, February 1990.

University of Southampton, Inter-Faculty Statistics Seminar, December 1982.

Royal Statistical Society, Birmingham Local Group, April 1982.

COMPSTAT 1980, 4th Symposium on Computational Statistics, Edinburgh, Aug 1980.

Royal Statistical Society Annual Conference, Oxford, April 1979.

British Sociological Association Quantitative Sociology Group, Annual Conference, Brighton, April 1977.

Royal Statistical Society General Applications Section Conference, Southampton, April 1974.

Study Group on Computers in Survey Analysis (British Computer Society/Market Research Society), May 1973.

British Sociological Association Quantitative Sociology Group, Conference on the Analysis of Survey Data, Southampton, April 1973.

Heriot-Watt University, Department of Statistics Staff Seminar, February 1973.

Social Science Research Council Seminar on Teaching of Statistics in the Social Sciences, University of Sussex., Brighton, Easter 1972.

University of Edinburgh, Faculty of Social Sciences Staff/Student Seminar on Education Policy, March 1970.

University of Edinburgh, Faculty of Social Sciences, International Seminar on Scientific Manpower, May 1970.

39th Session of the International Statistical Institute, Vienna, Aug 1973.

University of Edinburgh, Department of Statistics, Staff Seminar, January 1970.

Royal Statistical Society Research Section Conference, Brighton, September, 1967.