

## **CURRICULUM VITAE**

**Manuel Arellano**

*May 2018*

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Born 19 June 1957 (Elda, Spain)

Married, two children.

### **Education**

Ph.D. in Economics, London School of Economics, 1985.

(Dissertation: "Estimation and Testing of Dynamic Econometric Models from Panel Data".

Supervisor: J. D. Sargan.)

M.Sc. in Econometrics and Mathematical Economics, London School of Economics, 1982.

Licenciado en Ciencias Económicas, Universidad de Barcelona, 1979.

### **Employment**

Professor of Econometrics, CEMFI, Madrid, 1991-.

Lecturer in Economics, London School of Economics, 1989-1992.

Research Lecturer, Institute of Economics and Statistics, University of Oxford, 1985-1989.

Research Fellow, Nuffield College, Oxford, 1986-1989.

Research Assistant for Professor J. D. Sargan, London School of Economics, 1983-1985.

Profesor Ayudante de Econometría, Universidad de Barcelona, 1979-1981.

### **Other Appointments**

International Research Fellow, Institute for Fiscal Studies, London, 1997-.

International Fellow, CEMMAP, 2007.

Research Fellow, Centre for Economic Policy Research (CEPR), 1999-.

Associate Member, Nuffield College, Oxford, 2008-2017.

Research Associate, Centre for Economic Performance, LSE, 1989-1991.

Research Associate, Institute for Fiscal Studies, London, 1987-1991.

### **Visiting Appointments**

Gorman Visiting Professor of Economics, University College London, January-June 2012.

Visiting Professor, Department of Economics, Universidad Carlos III de Madrid, July-December 2012.

Distinguished Visiting Professor of Economics, Brown University, March 2003.

BBV Visiting Professor, Faculty of Economics and Politics, University of Cambridge, Winter 2000.

Visiting Professor, Department of Economics, Universitat Pompeu Fabra, Barcelona, Spring 2000.

Visiting Professor, Nuffield College, Oxford, April-May 1997.

Visiting Research Fellow, CREST, INSEE, Paris, April 1989.

### **Editorial Appointments**

*Journal of Applied Econometrics:*

Co-Editor, 2006-2008.

Editorial Board, 2000-2005.  
*Economic Policy*, Panel Member, 2005-2006.  
Editor, *Advanced Texts in Econometrics*, Oxford University Press, 2003-.  
*Review of Economic Studies*:  
    Managing Editor, 1994-1998.  
    Assistant Editor, 1991-1993.  
    Director, 1998-2003.  
    Editorial Board, 1990-1991 and 1998-2003.  
*Investigaciones Económicas*, Consejo Editorial, 1991-2000.  
*Revista Española de Economía*, Consejo Editorial, 1991-1994.  
*Oxford Bulletin of Economics and Statistics*, Co-Editor, 1988-1989.

## Honours

Member of Academia Europaea, 2016.  
Foreign Honorary Member of the American Academy of Arts and Sciences, 2014.  
President of the Econometric Society, 2014.  
President, European Economic Association, 2013.  
Premio Rey Jaime I de Economía, 2012.  
At-large member of the Executive Committee, Econometric Society, 2011.  
ISI Highly Cited Researcher, since 2010.  
Member of the Council, Econometric Society, 2006, re-elected 2009.  
Executive Committee, European Economic Association, 2005-2008.  
Council, European Economic Association, 2004-2008.  
Fellow of the European Economic Association, since 2004.  
President, Spanish Economic Association, 2003.  
*Journal of Econometrics* Fellow, 2003.  
Kuznets Prize, *Journal of Population Economics*, 2003.  
Fellow of the Econometric Society, elected 2002.  
Council, Spanish Economic Association, 1999-2001.  
Suntory-Toyota Scholarship, awarded by the London School of Economics, 1983-1985.  
Graduate Scholarship, Caixa de Barcelona, 1981-1983; panel: J. Sardà, F. Artal & J. Aubareda.

## Committees and Advisory Boards

Miembro del Comité Científico y Técnico de la Agencia Estatal de Investigación, 2017-.  
Review Panel, Department of Economics, London School of Economics, 2017.  
Advisory Board, UBS International Center of Economics in Society, University of Zurich, 2016-.  
Committee Member, BBVA Foundation Frontiers of Knowledge Award in Economics, 2009-10, 2013-17.  
Committee Member, Yrjö Jahnsson Award, European Economic Association, 2009, 2011.  
Panel Member, International Benchmarking Review of UK Economics, ESRC and RES, 2008.  
Member of the first and third ERC Advanced Grants Peer Review Panels, 2008, 1010.  
Founding Trustee, Barcelona Graduate School of Economics, 2006-.  
Scottish Institute for Research in Economics (SIRE), International Advisory Board, 2006.  
Scientific Committee, Centre for Applied Microeconometrics, Copenhagen, 2001.

## Conference Organisation

Co-Chair, 10th World Congress of the Econometric Society, Shanghai, 2010.  
Program Chairman (Econometrics), European Meeting of the Econometric Society, Lausanne, 2001.  
Program Committee, 9th World Congress of the Econometric Society, London, 2005.  
Program Committee, 8th World Congress of the Econometric Society, Seattle, 2000.  
Program Committee, Econometric Society European Meetings: Brussels 1992; Toulouse 1997;  
    Venice 2002; Stockholm 2003; Madrid 2004; Budapest 2007; Milan 2008; Barcelona 2009; Oslo 2011.

Program Committee, European Economic Association Meetings: Dublin 1992; Venice 2002; Amsterdam 2005.

Program Committee, Econometric Society Latin American Meetings: Bogotá 2007.

Program Committee, LACEA Meetings: Montevideo 2001; Madrid 2002.

Local Arrangements Committee, LACEA, Madrid, 2002.

Organiser, IEF Conference on Microeconomic Models and Fiscal Policy, Segovia, 1991.

Co-organiser, RES/CEMFI Conference on the Evaluation of Training Programs, Madrid, 1993.

Co-organiser, TSER Workshop on R&D Investment and Financial Conditions, Madrid, 1997.

Co-organiser, Conference on the Evaluation of Social Policies, Fundación Ramón Areces, Madrid, 2002.

Organiser, Microeconometrics European Network Conference, Madrid, 2003.

Co-organiser, Conference on Education Quality, Fundación Ramón Areces, Madrid, 2005.

Organiser, Microdata RTN Conference, Madrid, 2006.

Organiser, JAE Conference on Distributional Dynamics, CEMFI, Madrid, 2008.

### **Invited Lectures**

Keynote lecture, 23rd Spring Meeting of Young Economists, Palma de Mallorca, 1 June 2018.

Keynote speaker, 1st Italian Workshop of Econometrics, University of Milan-Bicocca, 25 January 2018.

Keynote speaker, INFER Workshop, UBB FSEGA Economics, Cluj-Napoca, 20 April 2017.

Keynote speaker, 8th French Econometrics Conference, ESSEC, Cergy, 17 November 2016.

Luigi Solari Lecture, Université de Genève, 19 November 2015.

Keynote speaker, Africa Region Training Workshop, Econometric Society, Lusaka, 22 July 2015.

Martha and Jonathan Cohen Distinguished Visitor at PIER, University of Pennsylvania, March 2015.

Presidential Addresses, Econometric Society: Asian Meeting (Taiwan, June 2014), Australasian Meeting (Hobart, July 2014), African Meeting (Addis Ababa, July 2014), European Meeting (Toulouse, August 2014), Latin American Meeting (Sao Paulo, November 2014), North American Winter Meeting (Boston, January 2015).

Keynote lecture, California Econometrics Conference, Stanford University, 26 September 2014.

Presidential Address, Congress of the European Economic Association, Gothenburg, 28 August 2013.

Rolf Mantel Lecture, Reunión Anual de la AAEP, Mar del Plata, Argentina, 17 November 2011.

Walras-Bowley Lecture, North American Summer Meeting of the Econometric Society, St. Louis, 10 June 2011.

Journal of Applied Econometrics Annual Lecture, University of Amsterdam, 3 July 2010.

Keynote lecture, 3rd Meeting of the Portuguese Economic Journal, Funchal, 27 June 2009.

A. W. Phillips Lecture, Australasian Meeting of the Econometric Society, Brisbane, 5 July 2007.

Invited speaker, Econometric Society Latin American Meeting, Mexico City, 3 November 2006.

Invited speaker, Conference of the Turkish Economic Association, Ankara, 12 September 2006.

Invited speaker, Econometric Society World Congress, London, 23 August 2005.

Invited speaker, 12th Conference on Panel Data, Copenhagen, 25 June 2005.

Invited speaker, XII Encuentro de Economía Pública, Palma de Mallorca, 4 February 2005.

Presidential Address, XXVIII Simposio de Análisis Económico, Sevilla, 11 December 2003.

Conferencia inaugural, VI Encuentro de Economía Aplicada, Granada, 5 June 2003.

Invited speaker, European Meeting of the Econometric Society, Venice, 27 August 2002.

Investigaciones Económicas Lecture, XXV Simposio de Análisis Económico, Barcelona, 21 December 2000.

Invited discussant, Econometric Society World Congress, Seattle, 11 August 2000.

Invited speaker, ESRC Econometric Study Group Annual Conference, Bristol, 15-17 July 1999.

Invited discussant, European Meeting of the Econometric Society, Toulouse, 27 August 1997.

Invited speaker, 3º Encontro Galego de Xóvenes Investigadores, Vigo, 9-11 July 1997.

Review of Economic Studies Lecture, Royal Economic Society Annual Conference, University of Kent, 27-30 March 1995.

Invited speaker, ESRC Econometric Study Group Annual Conference, Bristol, 14-16 July 1994.

Invited speaker, CEMAPRE 4th meeting on Applied Mathematics for Economics and Management, Lisbon, 23-25 March 1994.

Invited speaker, Canadian Econometric Study Group 7th Annual Meetings, University of Guelph,

22-23 September 1990.  
Invited speaker, Winter Symposium of Econometric Society, Nadarzyn/N. Warsaw, Poland,  
16-19 January 1990.

### **Invited Lecture Courses**

Masterclass, DIW, Berlin, 9-10 November 2017.  
Gerencia de Investigación Económica, Banco Central de Chile, Santiago, 21-23 October 2015.  
Economic Research Department, Reserve Bank of Australia, Sydney, 25-27 June 2014.  
School of Economics, Renmin University of China, Beijing, 1-5 July 2013.  
Boston University Distinguished Visitor, Department of Economics, September 2012.  
Escuela de Postgrado, Universidad del Pacífico, Lima, 13-15 August 2012.  
Berlin Network of Labour Market Research Lecture Series, Humboldt-Universität zu Berlin, April 2011.  
Department of Econometrics, University of Geneva, 10-14 September 2007.  
NCER, Queensland University of Technology, Brisbane, 9-10 July 2007.  
Masterclass, Cemmap, UCL/IFS, London, 15-16 March 2007.  
Department of Economics, University of Crete, Rethymno, 21-25 August 2006.  
Facultat d'Economia, Universitat de València, 17-21 July 2006.  
RES Easter School in Econometrics, Nuffield College, Oxford, 20-24 March 2006.  
Departamento de Economía, Universidad Carlos III de Madrid, 2-9 June 2005.  
Graduate Institute of International Studies, Geneva, 19-23 April 2004.  
CAM and Institute of Economics, University of Copenhagen, 26-28 January 2004.  
NAKE Workshop, Erasmus University Rotterdam, 10-13 June 2003.  
Department of Economics, Brown University, 10-19 March 2003.  
Department of Economics, Università di Padova, 22-25 May 2000.  
Curso Magistral, Universidad Internacional Menéndez Pelayo, Sevilla, 8-12 November 1999.  
Departament d'Economia, Universitat Pompeu Fabra, 17-21 May 1999.  
ECARE, Université Libre de Bruxelles, 19-21 April 1999.  
Research Department, Bank of Argentina, Buenos Aires, 21 April 1998.  
Departamento de Economía, Universidad de la República, Montevideo, Uruguay, Abril 1998.  
Doctoral Programme, Studienzentrum Gerzensee, Switzerland, August: 1997, 2002, 2006, 2011.  
Research Department, Bank of Italy, 9-11 September 1996.  
CIDE Summer School of Econometrics, Italy, June: Ridracoli, 1991; Bertinoro, 1994.

### **Publications**

#### **1) Books and Edited Volumes**

*Advances in Economics and Econometrics*, Econometric Society Tenth World Congress, Volumes I, II and III (co-edited with D. Acemoglu and E. Dekel), Cambridge University Press, 2013.

*Panel Data Econometrics*, Oxford University Press: Advanced Texts in Econometrics, Oxford, 2003.  
Chinese translation published by Shanghai Finance University Press in 2008.

*Modelos Microeconómicos y Política Fiscal*, Editor, Instituto de Estudios Fiscales, Madrid, 1994.

#### **2) Articles**

“Nonlinear Persistence and Partial Insurance: Income and Consumption Dynamics in the PSID”, *American Economic Review, Papers and Proceedings*, 108, 2018, 281-286 (with R. Blundell and S. Bonhomme).

“Sample Selection in Quantile Regression: A Survey”. In: R. Koenker, V. Chernozhukov, X. He and L. Peng (eds.): *Handbook of Quantile Regression*, Chapman and Hall/CRC, 2017 (with S. Bonhomme).

“Nonlinear Panel Data Methods for Dynamic Heterogeneous Agent Models”, *Annual Review of Economics*, 9, 2017, 471-496 (with S. Bonhomme).

“Earnings and Consumption Dynamics: A Nonlinear Panel Data Framework”, *Econometrica*, 85, 2017, 693-734 (with R. Blundell and S. Bonhomme).

“Quantile Selection Models with an Application to Understanding Changes in Wage Inequality ”, *Econometrica*, 85, 2017, 1-28 (with S. Bonhomme).

“Nonlinear Panel Data Estimation via Quantile Regressions”, *Econometrics Journal*, 19, 2016, C61-C94 (with S. Bonhomme).

“Modelling Optimal Instrumental Variables for Dynamic Panel Data Models”, *Research in Economics*, 70, 2016, 238-261. (Invited Lecture, European Meeting of the Econometric Society, Venice, 2002.)

“A Likelihood-Based Approximate Solution to the Incidental Parameter Problem in Dynamic Nonlinear Models with Multiple Effects,” *Global Economic Review*, 45(3), 2016, 251–274 (with Jinyong Hahn).

"Uncertainty, Persistence, and Heterogeneity: A Panel Data Perspective", *Journal of the European Economic Association*, 12, 2014, 1127-1153.

"Underidentification?", *Journal of Econometrics*, 170, 2012, 256-280 (with L. P. Hansen and E. Sentana).

"Identifying Distributional Characteristics in Random Coefficients Panel Data Models", *Review of Economic Studies*, 79, 2012, 987-1020 (with S. Bonhomme).

"Nonlinear Panel Data Analysis", *Annual Review of Economics*, 3, 2011, 395-424 (with S. Bonhomme).

"Robust Priors in Nonlinear Panel Data Models", *Econometrica*, 77, 2009, 489-536 (with S. Bonhomme).

"Understanding Bias in Nonlinear Panel Models: Some Recent Developments". In: R. Blundell, W. Newey, and T. Persson (eds.): *Advances in Economics and Econometrics, Ninth World Congress*, Volume III, Cambridge University Press, 2007, 381-409 (with J. Hahn).

"Paro y prestaciones: nuevos resultados para España". In: J.Pérez, C.Sebastián, and P.Tedde (eds.): *Políticas, Mercados e Instituciones Económicas*, Estudios en Homenaje a Luis Ángel Rojo, Volume 1, Editorial Complutense, Madrid, 2004 (with S. Bentolila and O. Bover).

"Discrete Choices with Panel Data", *Investigaciones Económicas*, 27, 2003, 423-458. (Investigaciones Económicas Lecture, XXV Simposio de Análisis Económico, Bellaterra, December 2000.)

"The Time Series and Cross-Section Asymptotics of Dynamic Panel Data Estimators", *Econometrica*, 71, 2003, 1121-1159 (with J. Alvarez).

"Binary Panel Data Models with Predetermined Variables", *Journal of Econometrics*, 115, 2003, 125-157 (with R. Carrasco).

"Sargan's Instrumental Variables Estimation and the Generalized Method of Moments", *Journal of Business & Economic Statistics*, 20, 2002, 450-459.

"The Distribution of Earnings in Spain During the 1980s: The Effects of Skill, Unemployment, and Union Power". In D. Cohen, T. Piketty and G. Saint-Paul (eds.): *The Economics of Rising Inequalities*, Chapter 1, Oxford University Press and CEPR, 2002, 3-53 (with O. Bover and S. Bentolila).

"Unemployment Duration, Benefit Duration, and the Business Cycle", *The Economic Journal*, 112, 2002, 223-265 (with O. Bover and S. Bentolila).

"Learning About Migration Decisions From the Migrants", *Journal of Population Economics*, 15, 2002, 357-380 (with O. Bover).

"Panel Data Models: Some Recent Developments". In: J. J. Heckman and E. Leamer (eds.): *Handbook of Econometrics*, Volume 5, Chapter 53, North-Holland, 2001, 3229-3296 (with B. Honoré).

"Symmetrically Normalized Instrumental-Variable Estimation Using Panel Data", *Journal of Business & Economic Statistics*, 17, 1999, 36-49 (with C. Alonso-Borrego).

"Autoregressive Models with Sample Selectivity for Panel Data". In C. Hsiao, K. Lahiri, L-F. Lee, and H. Pesaran (eds.): *Analysis of Panels and Limited Dependent Variable Models*, Chapter 2, Cambridge University Press, 1999, 23-48 (with O. Bover and J.M. Labeaga).

"Estimating Dynamic Limited Dependent Variable Models from Panel Data", *Investigaciones Económicas*, 21, 1997, 141-165 (with O. Bover).

"Another Look at the Instrumental-Variable Estimation of Error-Components Models", *Journal of Econometrics*, 68, 1995, 29-51 (with O. Bover).

"Female Labour Force Participation in the 1980's: The Case of Spain", *Investigaciones Económicas*, 19, 1995, 171-194 (with O. Bover).

"On the Testing of Correlated Effects with Panel Data", *Journal of Econometrics*, 59, 1993, 87- 97.

"Introducción al Análisis Econométrico con Datos de Panel". In J. J. Dolado, C. Martín and L. R. Romero (eds.): *La industria y el comportamiento de las empresas españolas: Ensayos en homenaje a Gonzalo Mato*, Chapter 1, Alianza Editorial, Madrid, 1993, 23-47.

"Female Labour Supply & On-the-Job Search: An Empirical Model Estimated Using Complementary Data Sets", *Review of Economic Studies*, 59, 1992, 537-559 (with C. Meghir).

"On Exogeneity and Identifiability", *Investigaciones Económicas*, 16, 1992, 401-409.

"Some Tests of Specification for Panel Data: Monte Carlo Evidence and an Application to Employment Equations", *Review of Economic Studies*, 58, 1991, 277-297 (with S. Bond).

"Testing for Autocorrelation in Dynamic Random Effects Models", *Review of Economic Studies*, 57, 1990, 127-134.

"Imhof Approximations to Econometric Estimators", *Review of Economic Studies*, 57, 1990, 627- 646 (with J.D. Sargan).

"Labour Supply and Hours Constraints". In J-P. Florens, M. Ivaldi, J-J Laffont, and F. Laisney (eds.): *Microeconometrics: Surveys and Applications*, Chapter 9, Blackwell, Oxford, 1990, 213-230 (with C. Meghir).

"La Econometría de Datos de Panel", *Investigaciones Económicas*, 14, 1990, 3-45 (with O. Bover).

"An Efficient GLS Estimator of Triangular Models with Covariance Restrictions", *Journal of Econometrics*, 42, 1989, 267-273.

"On the Efficient Estimation of Simultaneous Equations with Covariance Restrictions", *Journal of Econometrics*, 42, 1989, 247-265.

"A Note on the Anderson-Hsiao Estimator for Panel Data", *Economics Letters*, 31, 1989, 337-341.

"Computing Robust Standard Errors for Within-Group Estimators", *Oxford Bulletin of Economics and Statistics*, 49, 1987, 431-434.

"Causalidad y Exogeneidad en Econometría", *Cuadernos Económicos de ICE*, 24, 1983, 81-102 (with J. García Villar).

### **3) Comments and Other Publications**

"Econometría de la desigualdad: de la persona promedio a la persona cuantil". In: J. García, J. M. González-Páramo and A. Matas (eds.): *Análisis empíricos sobre la economía española. Ensayos en homenaje a Josep Lluís Raymond Bara*, Funcas, Thomson Reuters Aranzadi, 2017.

"Choosing to be a social scientist in Spain", *COSME Newsletter*, AEE, December 2013.

"La renta de los hogares españoles en el prelude de la crisis". In: M. Lucena and R. Repullo (eds.): *Ensayos sobre Economía y Política Económica: Homenaje a Julio Segura*, Antoni Bosch editor, Barcelona, 2013 (with O. Bover).

Discussion: "Should we have a WTO for international migration?" by Timothy Hatton, *Economic Policy*, 50, 2007, 374-376.

Discussion: "Panel Data Analysis - Advantages and Challenges" by Cheng Hsiao, *Test*, 16, 2007, 23-27.

Discussion: "Foreign Direct Investment and the Dark Side of Decentralization" by S. Kessing, K. Konrad, and C. Kotsogiannis, *Economic Policy*, 49, 2007, 62-64.

Discussion: "Has the Inflation Process Changed?" by Stephen Cecchetti and Guy Debelle, *Economic Policy*, 46, 2006, 341-344.

Discussion: "Evaluation of Currency Regimes: The Unique Role of Sudden Stops" by Assaf Razin and Yona Rubinstein, *Economic Policy*, 45, 2006, 143-146.

"Endogeneity and Instruments in Nonparametric Models". A Discussion in: M. Dewatripont, L. P. Hansen, and S. J. Turnovsky (eds.): *Advances in Economics and Econometrics, Eighth World Congress*, Volume 2, Cambridge University Press, 2003, 358-364.

"Lagrange Multiplier Test". Entry for *An Eponymous Dictionary of Economics*, J. Segura and C. Rodríguez Braun (eds.), Edward Elgar, 2004.

Review of *Analog Estimation Methods in Econometrics* by C. F. Manski, *The Economic Journal*, 99, December 1989, p. 1244.

### **Computer Programs**

"Dynamic Panel Data Estimation Using DPD - A Guide for Users". With S. Bond. Institute for Fiscal Studies Working Paper 88/15, London, 1988.

### **Unpublished Papers**

“Recovering Latent Variables by Matching”, January 2018 (with S. Bonhomme).

“Instrumental Variable Quantile Regressions in Large Panels with Fixed Effects”, June 2015 (with M. Weidner).

“The Choice between Public and Private Schools with or without Subsidies in Spain”, May 2007 (with G. Zamarro).

“Robust Likelihood Estimation of Dynamic Panel Data Models”, CEMFI Working Paper no. 0421, 2004 (with J. Alvarez).

“GMM Estimation from Incomplete and Rotating Panels”, first draft: February 2004, revised: March 2018 (with P. Albarran).

“Panel Data Models with Predetermined Instruments”, Review of Economic Studies Lecture, Royal Economic Society Conference, University of Kent, 1995.

"An Alternative Transformation for Fixed Effects Models with Predetermined Variables", Applied Economics Discussion Paper 57, IES, Oxford, 1988.

"Estimating Contaminated Limited Dependent Variable Models", Applied Economics Discussion Paper 11, IES, Oxford, 1986 (with O. Bover).

"Estimation of Dynamic Random Effects Models with Serially Correlated Time-Varying Errors", Paper presented at the 1983 European Meeting of the Econometric Society, Pisa, Italy, August 29.

#### **Ph.D. Theses Supervised**

M. Dolores Collado, "Dynamic Econometric Models for Cohort and Panel Data: Methods and Applications to Life-Cycle Consumption", London School of Economics, 1994.

César Alonso-Borrego, "Econometric Analysis of Investment and Employment Decisions Using Firm Panel Data", Universidad Complutense de Madrid, 1994.

Victor Aguirregabiria, "Dynamic Models of Price and Inventory Decisions with Fixed Adjustment Costs", Universidad Complutense de Madrid, 1995.

Raquel Carrasco, "Estimating Dynamic Discrete Choice Models from Panel Data with Applications to Labour Force Participation and Employment Decisions", Universidad de Alcalá, 1999.

Javier Alvarez, "Dynamics and Seasonality in Panel Data: Econometric Methods and Analysis of Earnings Mobility", Universidad Complutense de Madrid, 1999.

Cristina Barceló, "Housing Tenure and Labour Mobility in the European Union", Universidad Complutense de Madrid, 2003.

Jesús M. Carro, "Estimation of Dynamic Discrete Choice Models and Applications to Labor Force Participation and Fertility Decisions", Universidad Complutense de Madrid, 2003.

Pedro Albarrán, "Econometric Analysis of Income Dynamics and Rotating Panels, with an Application to Precautionary Saving", Universidad Complutense de Madrid, 2005.



Gema Zamarro, "Heterogeneous Returns to Education, Wages, and Sequential Schooling Decisions", UNED, Madrid, 2006.

Laura Hospido, "Heterogeneity and Dynamics in Individual Wages and Labour Market Histories", Universidade de Santiago de Compostela, 2007.

Graciela Sanroman, "Microeconomic Analysis of Household Portfolios", Universidad Complutense de Madrid, 2008.

Cristian Bartolucci, "Wage Differentials and Wage Rigidity: Micro Evidence from Labor Market Models with Frictions", UIMP/CEMFI, Madrid, 2009.

Enrique Moral-Benito, "Essays on Growth Econometrics", UIMP/CEMFI, Madrid, 2010.

Cristina López-Mayán, "Essays in Applied Microeconometrics: Education Decisions and Demand for Utilities", UIMP/CEMFI, Madrid, 2010 (jointly supervised with Samuel Bentolila).

Joan Llull, "International Migration Flows and Labor Market Outcomes: Micro and Macro Evidence", UIMP/CEMFI, Madrid, 2011.

Lucciano Villacorta, "Unobserved Heterogeneity and Dependence in Aggregate Panel Data Models: Methods and Applications", UIMP/CEMFI, Madrid, 2015 (jointly supervised with Stéphane Bonhomme).

Sandra García Uribe, "Essays on the Economics of the Media: Media Bias, Competition and Tax Anticipations", UIMP/CEMFI, Madrid, 2017.

## **Teaching**

*University of Oxford.* During 1985-89 I gave the following graduate lecture courses:

"Statistical Methods of Econometrics I" (M. Phil. Economics).

"Topics in Econometrics" (M. Phil. Economics).

"Regression Analysis" (M. Phil. Economics).

"Elementary Econometrics" (M. Sc. Development Economics).

*London School of Economics.* During 1989-91 I gave the following lecture courses:

"Quantitative Microeconomics" (M. Sc. Econometrics).

"Advanced Econometric Theory I" (M. Sc. Econometrics).

"Principles of Econometrics" (B. Sc. Economics).

"Econometrics of Panel Data" (M. Phil. / Ph. D. Economics).

*CEMFI, Madrid.* Since 1991-92 I have taught the following graduate lecture courses:

"Statistical Methods of Econometrics" (Master's programme, first year).

"Microeconometrics" (Master's programme, second year).

"Econometrics" (First year graduate course)

"Public Policy Evaluation: Causal Inference" (Second year topics course)

"Microeconometrics" (EEF).

"Econometrics of Panel Data" (EEF).

*University of Cambridge.* In 2000 I taught a lecture course in "Topics in Advanced Econometrics" for the M.Phil. in Economics programme.

*Universitat Pompeu Fabra.* In 2000 I taught a lecture course in "Topics in Microeconometrics" for the GPEM programme.