

## PERSONAL INFORMATION

## Monica Pratesi

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Sex Female | Date of birth 28/10/1962 | Nationality Italian

## POSITIONS

## CURRENT POSITION

Full Professor of Statistics – University of Pisa (2012-today)

## Universities

- Holder of the Jean Monnet Chair “Small Area Methods for Monitoring of Poverty and Living Conditions in EU” (2015-2018)
- Winner of the Jean Monnet Chair “Small Area methods for Multidimensional Poverty and living conditions Indicators in EU/SAMPIEU” (2018-2021)
- Director of the Tuscan Universities Research Centre “Camilo Dagum” on Advanced Statistics for the Equitable and Sustainable Development (2015-today)
- Member of the Teaching Board of the Ph.D. Programme in “Data Science” University of Pisa (2017-today)

## Scientific Societies

- President elected of the Italian Statistical Society (SIS) (2016-2020)

## Italian and European Official Statistics

- Member of the Board of Directors of Istat
- Member of Istat Committee on Big Data
- Member of Istat Commission on Users of the Statistical Information (CUIS) (2015-today)
- Member of the Board of European Master in Official Statistics jointly organized by Eurostat and European Statistical System (2018-2020)
- Member of the Scientific Committee for the organization of NTTS 2019 International Conference, the New Techniques and Technologies for Statistics (NTTS) is a biennial conference organized by Eurostat

## Research projects

- Principal Investigator for the University of Pisa for the project INGRID-2 (Integrating and servicing European expertise on inclusive growth from data to policy) financed under the EU programme H2020 (H2020-INFRAIA-2016-1) (2017- 2021)
- Principal Investigator for the University of Pisa for the project MAKSWELL (MAKING Sustainable development and WELL-being frameworks work for policy) financed under the EU programme H2020 ( H2020-SC6-CO-CREATION-2017) (2017-2020)

## Journals and Editorial Boards

- Director of “Statistica & Società” (2016-2020)
- Co-Editors of the Editorial Board of the Italian Journal of Applied Statistics (2009-today)
- Associate Editor of the Journal of the Indian Society of Agricultural Statistics (2009-today)

## PREVIOUS POSITIONS

## Universities

- Delegate of the Rector for Statistical Laboratory and Job Placement (2015-2018)
- Vice-Director of the Department of Statistics and Mathematics Applied to Economics (2008-2010)
- President of the Master Degree Course in Statistics of Economics and Applied Economics of the University of Pisa (2006-2008)
- Vice-President of the Master Degree Course in Marketing and Market Research of the University of Pisa (2009-2011)
- Member of Teaching Board of the Ph.D. Programme in Applied Statistics of the University of Florence (2002-2013)

## Scientific Societies

- Vice-President elected of the International Association of Survey Statisticians (IASS) (2015-2017) and member of the Board of the IASS (2009-2013)
- Director of the School of the Italian Statistical Society (2012-2016)

## Italian and European Official Statistics

- Founder and Coordinator of the SIS Working Group on Methods for Sample Surveys
- Member of the EMOS Experts Group for the institution of the European Master in Official Statistics (2012-2015)
- Member of the Scientific Committee of the School on Advanced Statistics of Istat (2014-2015)

- Research projects
- Scientific and Administrative Coordinator of project SAMPLE (Small Area Methods for Poverty and Living Condition Estimates) G.A. no. 217565 (SEVENTH FRAMEWORK PROGRAMME - THEME FP7-SSH-2007-1 Socio- economic sciences and the Humanities Part 8) (2008-2011)
  - FAO Consultant for the implementation of the Global Strategy for the improvement of Agricultural statistics: preparation of a technical report on small area estimation methods and participation in several missions in Tanzania for the implementation of the small area estimation

The work experiences, the academic and scientific activities and the activities in the field of official statistics at Italian and European level are summarized in the next sections.

## WORK EXPERIENCE

### 1993 - today

From the beginning my work experiences and my studies were devoted to the statistical methods for official statistics. Since my Ph.D. thesis on Area sampling for business and establishment surveys (Supervisor Prof. Luigi Biggeri) I was attracted by Official Statistics. When I was a Researcher one of the first research interests was the study of the Computer Assisted Telephone Interviews Methods and I spent a period at the Survey Research Center of University of Berkeley (today it is called Institute for the Studies of Societal Issues – UC Berkeley). Thanks to this experience I increase my skills on the modern techniques for surveys, from the electronic data interchange to the web surveys.

Firstly, my research interest was focused on the quality and reliability of the statistical data. Then, given the increasing need of more and more update data, I focused on Small Area Estimation (SAE) methods for evaluating poverty, living conditions and well-being at local level. I published many articles, organized conferences and lead international projects on this topic, contributing to the development of statistical methods used by National Statistical Institutes. More recently, I focused how Big data may be useful for official statistics.

Thanks to my institutional roles inside the Italian and European Statistical System I deepen the techniques for official statistics as well as the European Code of Official Statistics. The collaboration with Eurostat and the participation in European research networks allowed me to compare the functioning of the statistical systems in the European countries. The presidency of Italian Statistics Society allowed me know the needs of the users of statistical data. Furthermore, the Festival of Statistics and Demography, which involves schools, citizens and companies, allowed me to get in touch with local and national policy makers.

### Academics activity

Associate Professor in Statistics – University of Pisa (2002-2012)

Associate Professor in Statistics – University of Bergamo (1998-2002)

Researcher in Statistics – University of Florence (1993-1998)

Statistician-Computer Inspector Tuscany Region – Statistical Service and Data Processing (1992-1993)

I taught subjects in Bachelor's degree courses (more than 200 students), Master's Degree courses and PhD Programmes. I taught both in Italian and in English on these main topics:

- European Statistical Indicators of Poverty and Living Conditions (EMOS and Ph.D. in Data Science of the University of Pisa)
- Small Area Estimation Methods (Jean Monnet Chair and Ph.D. in Data Science of the University of Pisa)
- Survey Sampling (EMOS and Master of Science in Economics of the University of Pisa)
- Inferential Statistics (Several Courses of the University of Pisa)
- Descriptive Statistics (Several Courses of the University of Pisa)

### National and international scientific activity

I published more than 80 scientific articles on statistical method useful for Official Statistics (the list of the publications is shown below). I attended many national and international conferences with invited sessions. I organized Workshops, Conferences and Schools on Survey Methods e Applied Statistics, with particular regard to poverty estimation (the list is shown below). My reputation and the achieved results allowed me to obtain research funding (see the list below). Moreover, the scientific appreciation allowed me to be elected member of the International Statistical Institute (since 2012) President of the Italian Statistics Society and e Vice-President of the International Association of Survey Statisticians.

Activity in Official Statistics and International cooperation

The engagement in Official Statistics starts in 1995 as member of the Studying Group on the Quality of the Data Production Process in current surveys on Businesses and Local Units set up by the Statistical Information Guarantee Commission (Presidency of the Council of Ministers). This experience was repeated in 2002 for the same Commission, as member of the Web Surveys Study Group. My interest in Official Statistics has led me to institutional commitment in the field of national and international statistical systems. Moreover, it has impacted on my research, stimulating the theoretical solution of the problems and the identification of the most appropriate methods for data collection and data analysis. As member of the Board of Directors of Istat I have deepened the activities of the Institute and of Sistan (National Statistical System) as well as the management problems. I am member of the Committee on Big Data, whose use in official statistics has arisen many discussions. The participation in two European networks, EMOS and NTTS, and the meetings of the European statistical system allowed me to know the Eurostat organization and to interact with many of its managers, establishing working relationships and deepening my knowledge of socio-economic statistical surveys in different countries. I actively organized training activities on Official Statistics by means of the Higher School of Statistics of Istat and promoting the activation of the European Master's Network of Official Statistics (EMOS) at the University of Pisa.

The most important activity of statistical consulting was:

- FAO 1995-96: methods for the realization of the first Agriculture Census in China
- National Statistics Institute of Romania (August 2000): survey on Household Income in Romania
- National Statistics Institute of Bosnia-Herzegovina (November 2000): survey on Household Income in Serbia and Bosnia e Herzegovina
- FAO 2017-18: National Statistics Institute of Tanzania: verification of surveys in agriculture and small area estimation

EDUCATION AND TRAINING

- 1990-1993 **Ph.D. in Applied Statistics – University of Florence**  
Ph.D. thesis: Area sampling for business and establishment surveys
- 1981-1988 **Degree in Economics and Business – University of Florence**  
Thesis in Demography on the migration of Italian generations
- 1981-1983 **Diploma in Statistics – University of Florence**  
Thesis on models for bank data forecasts

PERSONAL SKILLS

Mother tongue(s) Italian

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2 - Proficient	C2 - Proficient	C2 - Proficient	C2 - Proficient	C2 - Proficient
Certificate of Proficiency in English CPE					

Communication skills

I have good communication skills gained through my teaching experience and the presentations of my research results at international conference. I improve my scientific dissemination skills during the counseling activities confronting with different audiences. During my studies and my institutional activity I tried to find the best solutions to problems, refining my ability to mediate and resolve any conflicts. Since 1987, I have carried out an intense voluntary activity, in the PAMAT Association "Prevention of Child Abuse, Tuscan Association" getting in touch with different social realities and it has allowed me to refine my interpersonal skills.

## Organisational / managerial skills

I have good leadership and organizational skills thanks to my institutional roles (Rector's Delegate, Directorate of the Dagum Center, Vice-Directorate of the Department of Statistics and Mathematics Applied to Economics, Presidency and Vice President of University Courses) and to coordinating of research projects. The Presidency of the Italian Statistical Society, the Vice President of the IASS and the Presidency of the PAMAT Association have contributed to consolidate these organizational.

## Technical skills

Good technical skills in project management for analysis, design, planning and realization of the objectives of a project, respecting precise constraints (times, costs, resources, goals, quality). Good knowledge of programming languages and statistical software such as SAS and R. Good knowledge of Microsoft Excel, Word for Windows and Mac.

## Publications on Official Statistics

Biggeri L., Giusti C., Lemmi A., Marchetti S., Pratesi M. (2018), "Disuguaglianze territoriali nella distribuzione dei redditi familiari di mercato e disponibili", in: M. Franzini, M. Raitano (eds) Il mercato rende diseguali? La disuguaglianza dei redditi in Italia, il Mulino, Bologna.

Biggeri L., Pratesi M. (2018), "Misure di povertà economica a livello locale e loro aggiustamento per il differente costo della vita", Neodemos, luglio 2018, ISSN 2421-3209 - [www.neodemos.info](http://www.neodemos.info)

Biggeri L., Giusti C., Lemmi A., Marchetti S., Pratesi M. (2018), "Poverty Indicators at Local Level: Definitions, Comparisons in Real Terms and Small Area Estimation Methods", in Statistics and Applications ISSN 2454-7395 (online) 2018, Special Issue on Survey Methodology and Applications (To felicitate Professor J.N.K. Rao on his 80th birthday) Issue 1 (New Series)

Pratesi M. (2017), I Big data: il punto di vista di uno statistico, Menab di Etica ed Economia – [www.eticaeconomia.it](http://www.eticaeconomia.it)

Giusti C., Masserini L., Pratesi M. (2017), "Local Comparisons of Small Area Estimates of Poverty: An Application Within the Tuscany Region in Italy", in Social Indicators Research, 131, issue 1, pp 235-254.

Marchetti, S., Giusti C., Pratesi M. (2016), "The use of Twitter data to improve small area estimates of households' share of food consumption expenditure in Italy", in ASTA Wirtschafts- und Sozialstatistisches Archiv: 57 10 (2-3) 60 61 July 2016.

Pratesi M., (2016) (ed) "Analysis of Poverty Data by Small Area Estimation", New York, Wiley.

Pratesi M. (2015), "Spatial Disaggregation and Small Area Estimation Methods for Agricultural Surveys: Solutions and Perspectives", FAO Technical Report in the Global Strategy Publications.

Pratesi M., Salvati N. (2016), Introduction on measuring poverty at local level using SAE methods, in Pratesi M. (ed) Analysis of Poverty Data by Small Area Estimation, New York, Wiley

Marchetti, S., Giusti, C., Pratesi, M., Salvati, N., Giannotti, F., Pedreschi, D., Rinizivillo, S.,

Pappalardo, L., and Gabrielli, L. (2015), "Small area model-based estimation using big data sources", in Journal of Official Statistics, 31, pp. 263-281.

Pratesi M. (2014) "M-Quantile Small Area Models for Measuring Poverty at a Local Level" in Contributions to Sampling Statistics (Mecatti, Conti, Ranalli eds), Springer-Verlag, Berlin.

Chambers, R.L. and Pratesi M. (2013), "Small Area Methodology in Poverty Mapping: An introductory overview", in: Lemmi A., Betti G. (eds.) Poverty and social exclusion: new methods of analysis. Routledge (2013).

Fabrizi E., Salvati N., Pratesi M. & Tzavidis N. (2014), "Outlier robust model-assisted small area estimation", in Biometrical Journal, 56, 157-175.

Fabrizi E., Salvati N. and Monica Pratesi (2012), "Constrained Small Area Estimators Based on MQuantile Methods", in Journal of Official Statistics, Vol.28, No.1, 2012. pp. 89–106

- Pratesi M., Marchetti S., Giusti C. (2012), "Small Area Estimation of Poverty Indicators", in Survey Data Collection and Integration eds C. Davino and L. Fabbri, Springer, Hardcover, ISBN 978-3-642-21307-6, Due: May 19, 2012.
- Marchetti S, Tzavidis N, Pratesi M (2012), "Non parametric bootstrap mean squared error estimation for M-quantile estimators of small area averages, quantiles and poverty indicators", in Computational Statistics & Data Analysis, ISSN: 0167-9473, doi: 10.1016/j.csda.2012.01.023
- Salvati N., Tzavidis N., Pratesi M., Chambers R. (2012), "Small Area Estimation Via M-quantile Geographically Weighted Regression", in TEST, vol 21 n 1, March 2012
- Salvati N., Ranalli, M.G. and Pratesi M. (2011), "Small area estimation of the mean using nonparametric M-quantile regression: a comparison when a linear mixed model does not hold", in Journal of Statistical Computation & Simulation, 81-8, 945-964, doi:10.1080/0094965090375237.
- Pratesi M., Giusti C., Salvati N. (2009), "Estimation of poverty indicators in Italy: a small area Mquantile based approach", in Rivista italiana di Economia, Demografia e Statistica, Vol. LXIII, n.1- 2, 243-256.
- Salvati N., Pratesi M., Tzavidis N. and Chambers R. (2009), "Spatial M-quantile Models for Small Area Estimation", in Statistics in Transition, Vol. 10, n.2.
- Pratesi M., Salvati N. (2008), "Small Area Estimation: the EBLUP estimator based on spatially correlated random area effects", in Statistical Methods & Applications, vol. 17, 1, 114-131.
- Tzavidis N., Salvati N., Pratesi M., Chambers R. (2008), "M-quantile Models with Application to Poverty Mapping", in Statistical Methods & Applications, vol. 17, 3, 393-411.
- Pratesi M., Rocco E. (2005), "Two-step centre sampling for estimating the size, total and mean of elusive population", in Statistical Methods and Applications, vol.14, n.3, 357-374.
- Grilli L., Pratesi M., (2004), "Weighted estimation in multilevel ordinal models to allow for informativeness of the sampling design", in Survey Methodology, vol.30, n. 1, 93-103.
- Pratesi M., Manfreda K.L., Biffignandi S., Vehovar V. (2004), "List based Web surveys: quality, timeliness and nonresponse in the steps of the participation flow", in Journal of Official Statistics, vol.20, n.3, 451-465.
- Biffignandi S., Pratesi M., (2002), "Internet surveys: the role of time in italian firms response behaviour", Research in Official Statistics, num. 2, vol.5, 19-34.
- Pratesi M. (2000), "Estimation of a population size by capture recapture heterogeneity models: an application to a closed population of firms with two dependent captures", in Statistica Applicata, num. 1, vol. 12, p. 121.
- Pratesi M. (1997), "Alcuni disegni di campionamento areale per le indagini su imprese non agricole", in Statistica Applicata, vol. 9 , n.3.
- Giusti A., Pratesi M. (1996), "EDI and Business Statistics", Statistica Applicata, vol. 8, n.4

#### INVITED TALKS AT WORKSHOPS, CONFERENCES AND SCHOOLS

##### Invited talks at International Conferences

- World Statistics Conference - ISI 2017, Marrakech (Marocco) – Invited talk on "SAE and Google trends"
- New Techniques and Technologies for Statistics - NTTS 2015, Brussels (BE) – Invited talk on "Small area estimation models with outliers in covariates"
- Small Area Estimation Conference - SAE 2014, Poznan (PL) – Invited talk on "SAE and Big Data"
- New Techniques and Technologies for Statistics - NTTS 2013, Brussels (BE) – Invited talk on "SAE model-based estimators using Big Data sources"
- World Statistics Conference - ISI 2011, Dublin (UK) – Invited talk on "Outlier robust model-assisted small area estimation"
- Small Area Estimation Conference - SAE 2009, Alicante (Spain) - Invited talk on "Outlier Robust M-quantile estimation in SAE"

- Invited lessons**
- Warsaw School of Life Science, December 2017- January 2018 – Lessons on “Poverty and Living Conditions indicators: traditional and new survey techniques”, for students of Master of Science.
  - Freie Universität, Berlin, 2013 – Seminar on “Spatial Models in Small Area Estimation: an M-quantile Approach”, Statistical Colloquium at Institute of Statistics and Econometrics, 15 February 2013 for PhD students.
  - Workshop of Baltic-Nordic-Ukrainian Network on Survey Statistics, 25 August 2012, Valmiera, Latvia – Lessons on “Recent development in Small area Estimation methodology”, for researchers of official statistics
  - Workshop of Baltic-Nordic-Ukrainian Network on Survey Statistics, 26 August 2012, Valmiera, Latvia - Lessons on “Use of Small Area Estimators in Italy. Case Studies”, for researchers of official statistics
- Organized Workshops and Conferences (selection)**
- XLIX Scientific Meeting of the **Italian Statistical Society**, SIS, Palermo, 20-22 June 2018, Member of the Programme Committee
  - XLVIII Scientific Meeting of the **Italian Statistical Society**, SIS, Salerno, 08-10 June 2016, President of the Programme Committee
  - ITACOSM 2011, Italian Conference on Survey Methodology, Pisa, 27-29 Maggio 2011, President of the Programme Committee
  - XLV Scientific Meeting of the **Italian Statistical Society**, SIS, Padova, 16-18 June 2010, Member of the Programme Committee
  - Jean Monnet Workshop on Small Area Methods and Living Conditions Indicators in European poverty studies in the era of data deluge and Big data, 8-10 May 2018 Pisa, Italy – Organization of the Conference and of the Reflection Workshop of project Maxwell.
  - World Statistics Conference - ISI 2017, Marrakech (Morocco) - Organization of the Invited Session on Small Area Estimation in Developing Countries.
  - INGRID Expert Workshop: Local statistics for decision-making on well-being and vulnerability – Livorno (Italy) 15-17 July 2015.
  - EFRAME Conference “Measuring progress at a local level”, University of Pisa 28 May 2013 – President of the Programme Committee and Organization of the Conference
  - World Statistics Conference - ISI 2013, Hong Kong (China) – Organization of the Special Topic Session on Measuring Progress at local level.
  - New Techniques and Technologies for Statistics - NTTS 2011 (Brussels) – Organization of the Final Event of the SAMPLE project.
  - Small Area Estimation Conference - SAE 2007, Pisa (Italy) – President of the Programme Committee and Organization of the Conference
- Schools**
- INGRID Summer School: Poverty and social exclusion in three dimensions: multidimensional, longitudinal and small area estimation, 21-25 July 2014, University of Pisa.
  - School of SIS and Istat o Technological Innovation, Web and Statistics (Roma, 28 January - 1 February 2013), Member of Scientific Committee and lecturer.
  - School of SIS on Web and Statistics (Pisa, 5-9 September 2011), Member of Scientific Committee and lecturer
  - School of SIS on Theory and practice of sample surveys: probabilistic approach and non-sampling errors (Milan, 4-6 July 2007), Member of Scientific Committee and lecturer.

Research Projects

International projects

- Principal Investigator for the University of Pisa for the project INGRID-2 (Integrating and servicing European expertise on inclusive growth from data to policy) financed under the EU programme H2020 (H2020-INFRAIA-2016-1) (2017- 2021)
- Principal Investigator for the University of Pisa for the project MAKSWELL (MAKING Sustainable development and WELL-being frameworks work for policy) financed under the EU programme H2020 ( H2020-SC6-CO-CREATION-2017) (2017-2020)
- Principal Investigator for the Dept of Economics and Management of the University of Pisa for the project INGRID INGRID (Inclusive Growth Research Infrastructure Diffusion) funded under the 7th Framework Programme by the European Commission (SEVENTH FRAMEWORK PROGRAMME DG Research and Innovation, Theme 8, Socio-economic Sciences and Humanities).
- Principal Investigator for the Dept of Economics and Management of the University of Pisa for the project EFRAME (European FRAmework for MEasuring progress) funded under the 7th FP <http://www.eframeproject.eu/>: 2012-2014 e-Frame European Framework for Measuring Progress, G.A. no. 290520 (SEVENTH FRAMEWORK PROGRAMME - DG Research and Innovation, Theme 8, Socio-economic Sciences and Humanities).
- Scientific and administrative Coordinator of SAMPLE project: 2008-2011 Small Area Methods for Poverty and Living Condition Estimates G.A. no. 217565 (SEVENTH FRAMEWORK PROGRAMME - THEME FP7-SSH-2007-1 Socio-economic sciences and the Humanities Part 8).


National projects

- Scientific coordinator of the unit of the University of Pisa in the PRIN 2008 –2010: Progetto di Ricerca di Interesse Nazionale (Prin, Research Projects of National Interest) “Inferenza con informazione ausiliaria carente: il campionamento da popolazioni elusive e la stima per domini non pianificatii coordinated by Prof. Giorgio Montanari, University of Perugia
- Scientific coordinator of the unit of the University of Pisa in the PRIN 2005 - 2007: Progetto di Ricerca di Interesse Nazionale (Prin, Research Projects of National Interest) “Stima non parametrica per domini territoriali in campo agricolo”, coordinated by Prof. A. Giommi, University of Florence
- Scientific coordinator of the unit of the University of Pisa in the PRIN 2004 - 2005: Progetto di Ricerca di Interesse Nazionale (Prin, Research Projects of National Interest) “Nuovi metodi di stima per le indagini correnti in agricoltura”, coordinated by Prof. A. Giommi University of Florence

Associations

- Italian Statistical Society (since 1992)
- International Statistical Institute (ISI) since 2012
- International Association of Survey Statisticians (IASS) since 2002
- PAMAT, ONG Prevenzione Abuso ai Minori Associazione Toscana since 1987

*I, the undersigned, hereby declare that the above is authentic and genuine and that all information required in relation to the award and selection criteria is presented. I further declare that I am available to work for the period(s) foreseen for the position for which my CV has been included in the event that this application is successful.*

Name	Monica Pratesi
Position	Full Professor of Statistics – University of Pisa
Signature	
Date	24/08/2018