FEDERICO BACCHI

Curriculum Vitae

Via Roma, 62
Acquapendente (VT), Italy
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Education

2022–2025 : **PhD, Statistical Sciences**, *Alma Mater Studiorum*, Bologna, Resarch project: Supply and demand of digital skills in Europe – A statistical analysis of regional labour markets through latent variable and spatial regression models (PON Scholarship).
Supervisor: Prof. Maria Rosaria Ferrante
Co-supervisor: Prof. Pinuccia Pasqualina Calia

2019–2021 : **Master Degree cum Laude in Statistics for Sample Surveys (LM-82)**, *University of Siena*, Thesis: Population Dynamics and economic conditions – Analysis of the Municipalities of Tuscany.
Supervisor: Prof. Gianni Betti
Co-supervisor: Prof. Laura Neri

2016–2019 : **Bachelor Degree cum Laude in Economics and Banking (L-33)**, *University of Siena*.

Publications

Working Papers

2022 Federico Bacchi and Laura Neri. Classification of the population dynamics observed in italian municipalities between 1951 and 2019. *Quaderni del Dipartimento di Economia Politica e Statistica | Università degli Studi di Siena*, 2022.

In Conference Proceedings

2025 Federico Bacchi, Pinuccia Pasqualina Calia, and Maria Rosaria Ferrante. European Digital Skill Supply: A Latent Variable Perspective. In *Book of Short Papers 3rd Italian Conference on Economic Statistics (ICES 2025) Sustainability, Innovation and Digitalization: Statistical Measurement for Economic Analysis*, pages 17–20. Enzo Albano Edizioni, 2025.

2024 Federico Bacchi, Pinuccia Pasqualina Calia, and Maria Rosaria Ferrante. Goodness of fit assessment of item response theory models for binary data. In *CFE-CMStatistics 2024 Book of Abstracts*, page 184. ECOSTA Econometrics and Statistics, 2024.

2024 Federico Bacchi, Pinuccia Pasqualina Calia, and Maria Rosaria Ferrante. The digital skill diffusion in Europe: a Multilevel Latent Class Analysis of "ICT Usage in Households and by Individuals" survey data. In *MBC2 2024 Book of abstracts*, page 23. Comitato Organizzatore MBC2, Catania, Italy, 2024.

2022 Federico Bacchi and Neri Laura. Classification of the population dynamics. In *SIS 2022 | Book of the short papers*, pages 1576–1581. Pearson, 2022.

Work Experience

University of Bologna

Jan, 2025 – ongoing **Research fellow**, **Academic discipline: SECS-S/03 Economic Statistics**, *Research focus: Economic and financial sustainability of systems and territories*.
As part of the GRINS foundation, the objective of the research fellowship was the development of Small Area (SAE) models for inequality and poverty measures for Italian sub-regional domains.

Mar, 2025 – ongoing	**_Seminar Activities_**. **Crash Course on R** ○ _Degree Program:_ Second Cycle Degree in Statistical Sciences. ○ _Class hours:_ 10 hours of laboratory frontal lessons. ○ _Subject:_ Introductory course on the use of statistical software R. ○ _Academic Year:_ 2025 – 2026. **Laboratorio di Analisi dei Dati Economici e di Mercato** ○ _Degree Program:_ First Cycle Degree in Statistical Sciences. ○ _Class hours:_ 10 hours of frontal lessons. ○ _Subject:_ Introduction to regression models for panel data analysis. ○ _Academic Year:_ 2024 – 2025.
Sep, 2023 – ongoing	**_Teaching Tutor_**. **Corso di allineamento in Probabilità e Inferenza Statistica** ○ _Degree Program:_ Second Cycle Degree in Statistics, Economics and Business. ○ _Class hours:_ 10 hours of frontal lessons. ○ _Subject:_ Introductory course in descriptive and inferential statistics. ○ _Academic Years:_ 2024 – 2025; 2025 –2026. **Algebra e Modelli Lineari** ○ _Degree Program:_ First Cycle Degree in Statistical Sciences. ○ _Class hours:_ 8 hours of laboratory frontal lessons. ○ _Subject:_ Estimation and diagnostics of linear regression models with R. ○ _Academic Years:_ 2023 – 2024; 2024 – 2025.

Prometeia, Bologna

May, 2023 – Dec, 2023	**_Student Researcher for Prometeia S.p.A._**, _Research focus: Labour market digital skill imbalances_. As part of the PhD program, the eight-month period spent in the company was aimed to develop a consistent part of the thesis, focusing on the study of the imbalances related to digital skills in European labour market.

Istituto degli Innocenti, Florence

Oct, 2021 – Dec, 2021	**_Data Analyst for Numeria S.r.l._**, _Research focus: policies for childhood and adolescence; national and international adoption_. Contribution to the annual report on the international adoption (Rapporto sui fascicoli dal 1° gennaio al 31 dicembre 2021) by Commissione per le Adozioni Internazionali (CAI) in collaboration with Istituto degli Innocenti (IDI).

ICT skills

Programming Languages	Good knowledge of the statistic software R; Basic knowledge of the typesetting system LaTeX
Office Package	Good overall knowledge of the package; High level of confidence in using Excel

Language Skills

English	Reading Skills: C1; Writing skills: B2; Speaking skills: B2.
French	Reading Skills: A2; Writing skills: A2; Speaking skills: A2.
Spanish	Reading Skills: A2; Writing skills: A2; Speaking skills: A2.

Certifications

International	**_First Certificate of English_**, _Cambridge University_. _Session:_ May 2021 _Result:_ Pass at grade A _Overall Score:_ 182/190 _CEFR Level:_ C1

International **_Preliminary English Test_**, *Cambridge University*.
Session: June 2013
Result: Pass with Distinction
CEFR Level: B2

Position of Responsibility

2019-2022 **President of the Municipal Youth Council**, *Acquapendente (VT)*.
Constant interaction with people holding institutional offices
Coordination of group activities