
FINAL REPORT

The Selection Committee for one position of Associate Professor (Academic Recruitment Field “Demography and Social Statistics” (13/D3) - Academic Discipline SECS-S/05 “Social Statistics”) at the Institute of Management, in the recruitment framework of the EMBDS Department of Excellence, Scuola Superiore di Studi Universitari e di Perfezionamento Sant’Anna di Pisa, nominated by the Rector (decree No. 567 dated 17/09/2018) and consisting of:

- Prof. Cecilia Laschi, Full Professor (Academic Recruitment Field: Bioengineering 09/G2) of the School, member;
- Prof. Francesca Chiaromonte, Full Professor (Academic Recruitment Fields: Statistics and Mathematical Methods for Decisions 13/D) of the School, designated expert by the Institute of Management;
- Prof. Stefano Campostrini, Full Professor (Academic Recruitment Field: Demography and Social Statistics) of the University of Venice;
- Prof. Ofer Harel, Full Professor of University of Connecticut – USA;
- Prof. Therese Stukel, Full Professor of the University of Toronto – Canada;
- Prof. Giorgio Vittadini, Full Professor Full Professor (Academic Recruitment Fields: Statistics and Mathematical Methods for Decisions 13/D) of the University of Milano Bicocca

Completed its work with the following timeline: October 3, 2018 preliminary meeting via teleconference (proceedings continuing until October 8, 2018). November 9, 2018 second and final meeting via teleconference.

In the preliminary meeting the Committee nominated the President and the Secretary. As noted in the minutes, each member declared that they had no kinship or affinity (up to and inclusive of the fourth degree) with each other or with the candidate. The Committee established the date by which its work would be completed, defined the criteria with which publications, curriculum and teaching activity of the candidate were to be evaluated, and postponed to the second meeting the decision on whether to invite the candidate to hold a seminar.

In the second meeting the Committee examined publications, curriculum and teaching activity of the candidate. After a comprehensive discussion and by an absolute majority, the candidate

CHIARA SEGHERI

was declared the winner of the position. Individual and collegiate assessments produced by the Committee are attached to this report (Annex 1).

Read, approved and signed.

THE COMMITTEE

Prof. Giorgio Vittadini
Prof. Stefano Campostrini
Prof. Ofer Harel
Prof. Cecilia Laschi
Prof. Therese Stukel
Prof. Francesca Chiaromonte

President
Member
Member
Member
Member
Secretary

1

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ANNEX 1 - MINUTES OF THE SECOND MEETING
INDIVIDUAL ASSESSMENTS

Prof. Cecilia Laschi

Concerning the scientific publications:

The candidate presents original results in methods that are used in the analysis of socio-economic phenomena and in healthcare. Her results are in between novelty in statistical methods themselves and original findings in healthcare or socio-economic phenomena. The novelty of her achievements is more on the methods, which nicely place the candidate’s scientific contribution in the field of applied statistics.

The number of publications in which the candidate is co-author is relatively high. The quality is improving, in terms of journals in which the papers are published and in terms of personal contribution by the candidate, who is appearing as first name or last name more often.

The bibliometric indexes describing the candidate’s scientific production are high and above the average of her peers in the same sector. Actually, she compares with the set of associate professors in the same sector in Italy, resulting 2nd for F5S and 3rd for S5.

Concerning the curriculum vitae:

The candidate shows a good continuity of her activities in the field of applied statistics and a rich experience at national and international level. She has experience of collaboration with local public bodies and also with some international partners in Europe, including EU-funded projects. In 2 of such projects she is the PI for her institution, but she does not appear as coordinator of any project.

She received some fellowships for these collaborations and periods abroad. She has a good participation in conferences, as a speaker, with an average of about one/year.

Concerning the teaching activity:

The candidate contributed to teaching activities at undergraduate and graduate levels. She served as teaching assistants to different courses at the universities of Pisa, Firenze, Udine, for a total of 6 semesters. She also started delivering her own course to undergraduate students at SSSA and short courses at the University of Pisa. She has been serving as lecturer in a course for PhD students at SSSA and few years ago at the University of Florence. She has experience in executive training.

Her teaching experience is not extremely rich but quite in line with her current position at SSSA. Her teaching activities are coherent with her scientific sector.

Prof. Francesca Chiaromonte

Dr. Seghieri has been an assistant professor at the Sant’Anna School of Advanced Studies since 2009 and has received the National Qualification as associate professor of Demography and Social Statistics in 2017.

Her research focuses on statistical analyses for the evaluation of healthcare systems, in terms of performance and inequalities, and of care practices for certain chronic conditions. She has a long track record as an active member of the MES research team at the Sant’Anna School and has gained substantial national and
international experience -- achieving a good level of recognition in her field. In particular, she has given talks at several conferences in Italy and abroad and has served as referee for several international journals.

Dr. Seghieri published 39 peer-reviewed articles and had 3 more under review at the time of her application. The first-author publications are 9, and in several more she is second or last author. The majority of her publications, especially since 2009, are in international journals -- and many are in very well-regarded publishing venues. Her publication profile is thematically consistent, and coherent with the SECS-S/OS sector.

She also contributed to several nationally and internationally funded projects. She has been the coordinator of the Italian research unit for two EU-funded projects, and a participant or consultant for several other EU- and nationally funded research projects.

She has worked intensively with the Tuscany Region, for which she is a member of two scientific advisory committees -- on healthcare outcomes evaluation and gender medicine. In the past, she has also worked as a statistician at FAO. She spent visiting periods in the US (Dartmouth College) in 2013 and the UK (Essex University) in 2003, and she maintains active collaborations with researchers in various institutes and centers in the Netherlands, the UK, the US and Canada.

Dr. Seghieri has taught both at the graduate and undergraduate level at the Sant'Anna School, the University of Pisa and the University of Florence. Earlier on, she also worked as a teaching assistant at the Universities of Florence, Pisa and Udine. Her teaching record is not substantial, but appropriate for her academic seniority and coherent with the SECS-S/OS sector. She has some record of teaching in English but, based on her CV, no record of teaching abroad. Since 2011, she has been part of the board of the PhD in “Management, Innovation, Sustainability and Healthcare” offered by Sant'Anna and supervised 4 doctoral students to date.

Notably, Dr. Seghieri also taught in various professional Masters and executives training initiatives, and since 2016 she has been the scientific coordinator of a training course for healthcare executives held at the Sant'Anna School.

I would characterize Dr. Seghieri as a skilled applied statistician, working on issues of unquestionable societal impact. By and large, more than on the development of novel statistical methodology, her work focuses on conducting rigorous and at times innovative empirical analyses that address critical questions in healthcare as well as in medicine. Importantly, these analyses often involve handling, integrating and analyzing large amounts of data -- e.g., from the massive administrative health databases of the Tuscany region. She also has experience in disseminating results to the relevant stakeholders -- including executives and policy makers.

Prof. Stefano Campostrini

The Candidate presents research experiences and publications on topics relevant to the Disciplines of the Sector. From her contribution, always identifiable, one can deduce a scientific maturity and several elements of originality. In terms of impact on the scientific community, both the editorial level and the number of citations appear to be relevant and above the average of researchers in the Discipline. Her presentations in international meetings is satisfactory.

She has a very good experience, often as coordinator, in national and international research groups. Particularly she coordinated the Italian research units of two EU-funded projects.

The Candidate presents several interesting scientific collaborations with other universities and with public and private organizations all on subjects relevant for the present studies of the Social Statistics discipline.
Her teaching record, for the position covered so far, is substantial and well focused on the pillars of the Discipline, having taught courses both at the graduate and undergraduate level, being in the board of a PhD program and active in other relevant executives training initiatives.

Prof. Ofer Harel

After reviewing Dr. Seghieri’s CV, papers, and materials, I can support her application for the Associate Professor position. To give you some means of calibrating my evaluation, I am a Professor and Director of Admissions for the Department of Statistics, at the University of Connecticut. I have been on numerous search committees for faculty and higher administration, and served for many years on the Promotion and re-appointment committee of our department.

I have never met Dr. Seghieri, nor had any contact with her or with her close collaborators. Dr. Seghieri is a trained statistician whose primary research activity involves the development and application of statistical methods for the analysis of healthcare and socio-economic data. She has diverse research interests ranging from health services and health systems, hospital outcome profiling, patient’s satisfaction and decision making, inequalities in healthcare and more. Her research area and publications are coherent and fit very well with the sector area of social statistics.

Dr. Seghieri has been productive as a collaborative statistician, published numerous papers in several research areas (see above). However, she has a limited record of publications concerning methodological developments. Her CV mentioned 42 peer-reviewed articles (3 of them are under review), she published 4 papers in 2018, 5 in 2017 and 2 in 2016. She has several well referenced papers; 2 papers have more than 100 citations and 4 papers more than 50 citations (based on Google Scholar).

Dr. Seghieri has been part of several national and international projects, indicating experience in national and international research. She is the local coordinator for two EU funded projects. She holds a consulting position for some other EU projects and is a participant in several other national and international projects. Furthermore, she gave numerous presentation across Europe and the US. It seems that Dr. Seghieri has expertise and recognition, nationally and internationally.

Dr. Seghieri current and past positions did not require a heavy load of teaching. Therefore, the courses taught are considered reasonable. She taught undergraduate and graduate courses both in English and Italian, on diverse topics. This indicates a potential for teaching. I have not seen any direct evaluations of her teaching and hence will not be able to comment of the effectiveness of her teaching.

While still relatively junior, Dr. Seghieri performs important service to the university and the community. She serves on couple of national and regional advisory committees and reviews manuscripts for several European and international journals.

In summary, for her significant research contributions as a collaborative statistician in diverse areas of research such as health services and health systems, hospital outcome profiling, patient’s satisfaction and decision making, inequalities in healthcare, Dr. Seghieri is qualified for the rank of Associate Professor.

Prof. Therese Stukel

Dr. Chiara Seghieri is applying for the position of Associate Professor, Scuola Superiore Sant’Anna, Pisa, Italy. I will evaluate her accomplishments in terms of scientific papers, CV and teaching activity.

Scientific publications. Dr. Seghieri has published 39 papers in the peer-reviewed literature, in 16, as either first or senior author. There are at least 10 papers published in well known international journals such as PlosOne, International Journal for Quality in Health Care, Social Science & Medicine, Health Policy, BMC Health Services Research and the European Journal of Health Economics. Her h-index is 11. Compared to her peers, Italian social statistics Associate Professors, she is among the most highly cited.
Dr. Seghieri is a trained statistician and uses sophisticated methodology in her research, such as multilevel modeling and discrete choice models. Her substantive research areas are in health system evaluation, specifically, multidimensional system performance, hospital profiling, health care inequalities, and patient satisfaction. With colleague Nuti, she analyzed the performance of the Tuscan health system in terms of markers of evidence-based, supply-sensitive and preference-sensitive care. This was the first such regional evaluation and the approach is now being used in other Italian regions. She has collaborated on several cross-national comparisons of EU and Commonwealth countries primary care quality and costs. She has undertaken several hospital profiling studies, specifically of 30-day AMI mortality and C-section rates, where she developed the methodology and was first or senior author. She implemented discrete choice models to understand population preferences for different primary care models (European J of Health Economics, 2017). She used sophisticated mixed logit methods to model patient preferences for visits to cardiologists and found that travel time and waiting time were important (PloSOne, 2018). She has explored issues of inequity in health care provision in patients with diabetes and with cardiac disease. This shows sustained scholarly achievement in different areas of health system performance using sophisticated statistical methodology for someone at the level of Assistant Professor. In addition, it demonstrates her ability to work collaboratively with regional and international researchers and policy makers.

**Curriculum Vitae.** Dr Seghieri has established long-term collaborations with colleagues at the Dartmouth Institute for Health Policy and Clinical Practice (TDI), USA, the Institute for Health Policy Management and Evaluation (IHPME), Toronto, the Netherlands Institute for Health Services Research, and the University of York. These collaborations have led to multiple published studies of international health systems comparisons. She obtained a fellowship to visit TDI, and a fellowship to visit Essex University, and spent several months collaborating with these colleagues. Finally, she has been invited to speak on her work at several international venues.

**Teaching.** She has taught undergraduate courses in probability and statistics, and in applied statistics at the University of Pisa, and graduate courses in Applied Statistics and Econometrics, at SSSA and the University of Florence. Much of her teaching has been in the executive training course in Clinical risk management and quality and safety improvement of healthcare services, where she teaches and is course coordinator. Finally, she has supervised four successful PhD students.

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**Prof. Giorgio Vittadini**

**Concerning the scientific publications:**

- 5 optimum
- 4 good
- 3 medium
- 2 sufficient
- 1 scarce

   - Innovativeness: 2
   - Coherence: 5
   - Individual contribution 3(1/3)
   - Bibliometric indexes: 0

   - Innovativeness: 2
   - Coherence: 5
   - Individual contribution 2(1/4)
   - Bibliometric indexes: 2 (riv non A)
- Innovativeness: 3
- Coherence: 5
- Individual contribution 2(1/4)
- Bibliometric indexes: 5 (A) 2 cit

- Innovativeness: 5
- Coherence: 5
- Individual contribution 1(1/5)
- Bibliometric indexes: 5 (A) 1 cit,

- Innovativeness: 5
- Coherence: 5
- Individual contribution 3(1/2)
- Bibliometric indexes: 5 (A) 4 cit,

- Innovativeness: 3
- Coherence: 5
- Individual contribution 2(1/4)
- Bibliometric indexes: 3 (riv non A) 6 cit

- Innovativeness: 2
- Coherence: 3
- Individual contribution 3(1/2)
- Bibliometric indexes: 2 (riv non A) cit 13

- Innovativeness: 3
- Coherence: 5
- Individual contribution 2(1/3)
- Bibliometric indexes: 2 (riv non A) cit 10

- Innovativeness: 5
- Coherence: 5
- Individual contribution 3(1/2)
- Bibliometric indexes: 5 (riv non A) cit 25

- Innovativeness: 3
- Coherence: 5
- Individual contribution 2(1/3)
- Bibliometric indexes: 3 (riv non A) cit 23

- Innovativeness: 3
- Coherence: 5
- Individual contribution 2(1/3)
- Bibliometric indexes: 3 (riv non A) cit 30
   - Innovativeness: 3
   - Coherence: 5
   - Individual contribution 1/14
   - Bibliometric indexes: 3 (riv non A) cit 25

   - Innovativeness: 3
   - Coherence: 5
   - Individual contribution 1/14
   - Bibliometric indexes: 3 (riv non A) cit 44

   - Innovativeness: 3
   - Coherence: 5
   - Individual contribution 1/14
   - Bibliometric indexes: 3 (riv non A) cit 44

   - Innovativeness: 1
   - Coherence: 3
   - Individual contribution 1/14
   - Bibliometric indexes: 1 (riv non A)

   - Innovativeness: 5
   - Coherence: 5
   - Individual contribution 2/13
   - Bibliometric indexes: 5 (riv A) , cit 45

**Number and quality of scientific publications – in terms of publication venue and originality**

The candidate has many scientific publications: 42 peer reviewed papers, 1 book, 8 chapters of books, 1 working papers, 14 proceedings. Among the 16 presented publications 15 are peer reviewed papers (1 scientific journals of the best level in the Anvur 2018 classification). Chiara Seghieri has 18 H-google scholar index (16 since 2013) and 119 citations and 9 H-Web of science index. The quality of her publications is good: the major part of them are completely coherent with the SECS-S/05 sector; some of them are innovative above all from the applied point of view; the statistical methodology is appropriate even if it is not very original; the style is comprehensible and sufficiently elegant.

**Concerning the curriculum vitae:**

**Overall experience at the national and international level**

The candidate took part in various projects and interdisciplinary expert groups at a national and international level. She collaborated with the Dartmouth Institute for Health and Clinical Practice (Dartmouth College USA), the University of York (UK), the Institute of Health Policy, Management and Evaluation of Toronto University, the Eurostat, the governments of New Zealand and the Netherlands, and in Italy with the Bicocca University of Milano, the University of Bologna, the Regional Health Agency of Tuscany. She is able to analyze large amounts of data used by a network of 13 Italian regions and by the Organization for Economic Cooperation and Development (OECD) for the evaluation of the performance of health systems in 1 countries (Health at Glance, 2017). She also worked in non-academic projects as health manager and policy maker, collaborating with various professionals with different knowledge and skills.
Independence and initiative demonstrated by the candidate in initiating, establishing and managing research activities

The candidate demonstrated a good expertise in the subsector of healthcare while there are not relevant contributions in other fields belonging to SECS-S/05 Sector. Her research primarily concerned Multidimensional performance assessment of health systems, Hospital outcomes profiling, determinants of patient satisfaction, Inequalities in health and healthcare. The candidate proposed statistical methods for health services and outcomes research using observational data such as large databases of routine-collected data and healthcare. The main methodologies proposed are data linkage techniques applied to individual patient-level administrative databases, the Cox regression and Heckman models, multilevel models applied to health administrative data, discrete choice techniques to study the preferences of the users of health services, statistical analysis techniques applied to georeferenced health administrative data.

National and international research funding received

The candidate coordinated the research unit of Sant'Anna School of Advanced Studies in two EU-funded projects, QUALICOPC and HarmonicSS which measured and assessed the quality, costs and equity of primary care services in 32 European countries. Chiara Seghieri also participated to the EU-funded project FELICIE (Future based on international databases including the ECHP – European Community Household Panel).

Organization of, and invited contributions, talks and posters to conferences and workshops

"Variation of Deep Vein Thrombosis and Pulmonary Embolism following orthopedic surgery in Emilia Romagna and Tuscany", Wennberg International collaborative, Zurich, spring policy meeting, 2018.
"Migrants' Utilisation of Specialist Care with Increasing User Charges: The Case of Tuscany, Italy", paper presented with Prof. Margherita Giannoni at the iHEA - International Health Economics Association 12th World Congress, Boston (MA), July 8-11, 2017.
"Educational inequalities in 30 days outcomes after hospitalization for acute myocardial infarction – the Italian case" European Health Policy Group Meeting, London School of Hygiene and Tropical Medicine, London, September, 24-25, 2015.
"Effectiveness evaluation in Healthcare: comparing logistics vs multilevel methods". Population Studies(SIS_AISP), Palermo (Italy), February, 4-6, 2015.
"The efficiency of Primary Care in Europe" at the conference: QUALICOPC: Quality and Costs of Primary Care: Risultati ed esperienze interzionali e 5 nazionali a confronto. Sant'Anna School for Advanced Studies, (Pisa), May 12, 2014.
"Evaluating and managing Geographic Variation in health Care and Outcomes in Italy and USA: the case of cardiovascular disease", Sant'Anna School for Advanced Studies, September 14, 2012.
"Continuity of care and communication among general practitioners, specialists and patients in Italy’s conference "The Future of Primary Health Care in Europe" at the European Forum of Primary Care, Gotteborg (Sweden), September 2-5, 2012.

Teaching activity:

Overall record of courses held

Undergraduate courses - Lecturer:

Undergraduate courses – Teaching assistant:
Postgraduate courses - Lecturer
Course "Applied statistics for Social Sciences", PhD in "Management Innovation, Services and Sustainability" Sant’Anna School for Advanced Studies, Pisa, Italy. 20 hours, in English. Since 2009-2010.
Course "Econometrics", PhD in "Wine economics and Rural Development" Univ. of Florence, Italy. 2007-2008.

Executive training:
Cycle of lectures on: "comparative effectiveness of healthcare", executive training courses for health care CEOs and top managers, Sant’Anna School for Advanced Studies, Pisa, Italy. Since 2013 (88 hours).
Cycle of lectures on: "Methods and data to measure and monitor the quality and safety of healthcare" executive course for "Clinical risk management and quality and safety improvement of healthcare services" Sant’Anna School for Advanced Studies, Pisa, Italy. VII cycle (2016-2017) and VIII cycle (2017-2018) (3: hours).
Cycle of Lecturers: "Quantitative methods for the analysis of healthcare data", Master in Health Care Management, Sant’Anna School for Advanced Studies, Pisa, Italy. 14 hours. 2014.
Course: "Multivariate Analysis" Institute for the economic regional studies (IRPET), Florence, Italy. 2005.

PhD Supervision
Supervisor of Diana Rojas, thesis: "Organizational Climate for Better Performance in Healthcare". 2013 "Management Innovation, Services and Sustainability", Sant’Anna School for Advanced Studies, Pisa, Italy.

Development and delivery of novel courses
The candidate taught multilevel models, for the assessment and evaluation of teaching effectiveness by using both university administrative data and survey data from questionnaires.

Coherence of the courses with the SECS-S/05 sector
All the teaching activity of Chiara Seghie is coherent with the SECS-S/05 sector.
ANNEX 2 – MINUTES OF THE SECOND MEETING
COLLEGIAL ASSESSMENT

The individual assessments provided by the members of the Selection Committee are quite consistent in characterizing Dr. Chiara Seghieri’s academic record as deserving of promotion to the rank of Associate Professor (Academic Recruitment Field “Demography and Social Statistics” (13/D3) - Academic Discipline SECS-S/05 “Social Statistics”).

Using sophisticated statistical methodology, Dr. Seghieri has studied healthcare systems and care practices for chronic conditions such as diabetes and cardiac disease. In particular, she made significant contributions to the analysis of healthcare systems in terms of performance, inequalities/inequities, and quality of care – applying her approaches to the Tuscan system, those of many other Italian regions, as well as the comparison of healthcare systems across EU and Commonwealth countries. Her work addresses issues of unquestionable societal impact, and she has experience in training and collaborating with healthcare executives and policy makers.

In summary, we concur that:
- **Dr. Seghieri’s scientific production is solid in reference to the international standards, and well above average in reference to the national standards in her sector.** She has 39 peer-reviewed articles, many of which in a leading role and in well-known international journals. 3 more articles were under review at the time of application. Her work is coherent with the SECS-S/05 sector and highly cited in comparison to her peers. She also has a satisfactory record of presenting her work at international conferences.
- **Dr. Seghieri has considerable experience in participating to, as well as coordinating, national and international research groups and projects.** She coordinated the Italian research units of two EU-funded projects, QUALICOPC and HarmonicSS – which measured and assessed the quality, costs and equity of primary care services in 32 European countries. She was also a participant or consultant for several other EU- and nationally funded research projects.
- **Dr. Seghieri has a strong record of scientific collaborations with other universities, and with public and private organizations -- both in Italy and abroad.** She collaborated with researchers at the Dartmouth Institute for Health Policy and Clinical Practice (USA), the Institute for Health Policy Management and Evaluation (Toronto, Canada), the Netherlands Institute for Health Services Research, and the University of York (UK). In Italy, she collaborated with researchers at the University of Milano Bicocca and the University of Bologna, and she worked closely with the Regional Health Agency of Tuscany. She is a member of two scientific advisory committees for the Tuscan Region -- on healthcare outcomes evaluation and gender medicine.
- **Dr. Seghieri has a record of teaching and coordinating training programs that is satisfactory based on her current academic seniority.** She has taught courses both at the graduate and undergraduate level at the Sant’Anna School, the University of Pisa and the University of Florence – and these courses were coherent with the SECS-S/05 sector. Since 2011, she has been part of the board of the PhD in “Management, Innovation, Sustainability and Healthcare” offered by Sant’Anna and supervised 4 doctoral students to date. Notably, Dr. Seghieri also taught in various professional Masters and executives training initiatives, and since 2016 she has been the scientific coordinator of a training course for healthcare executives held at the Sant’Anna School.