

# Sarah Assem Mahmoud Ibrahim

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## Summary Profile

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Dr. Sarah is a dedicated and proactive lecturer and researcher at the Faculty of Graduate Studies for Statistical Research, Department of Biostatistics and Demography. She graduated from the Faculty of Economics and Political Science, Cairo University, in 2004; received the MSc degree in Statistics in 2013 from the same Faculty, and finished her PhD in 2021 from the Faculty of Graduate Studies for Statistical Research. In addition to her academic work, she worked as a statistician in El-Zanaty and associates (2004-2005), and she participated in DHS 2005. Moreover, she worked as a senior researcher at National Council for Childhood and Motherhood from the year 2005 to the year 2009. She participated in many projects such as Child Labour, Homeless Children, and Girls' education funded by UNICEF, CAPMAS, and Civil society organizations. She has been working as a researcher, demonstrator, and assistant lecturer since 2009. She taught courses like Probability, Mortality, Advanced Topics in Morbidity and Mortality. She is a reviewer in PLOS ONE. Her research interests are mainly focused on Biostatistics, Bayesian and Forecasting methods, health, health economics, urbanization, and demography.

## Education

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- **PhD, Faculty of Graduate Studies for statistical research, Cairo University.** November 2021  
*Thesis title: The impact of morbidity and demographic pathways to economic growth in Egypt.*
- **Master Degree, Faculty of Economics and Political Science, English department, Master Degree of Statistics.** June 2013  
*Thesis title: Using dynamic random effect in studying determinants of fetal loss in Egypt*
- **Bachelor Degree, Faculty of Economics and Political Science, English Section (Grade: Very good with honors).** June 2004  
**Major:** Statistics, **Minor:** Computer.

## **Employment History**

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**Assistant Professor** Nov2021

**Assistant Lecturer** 2013-2021

**Faculty of Graduate Studies for Statistical Research**

- Experience in teaching Fertility, Mortality, Applied statistics and Probability.
- Planning lessons and assignments.
- Grading papers and exams.

**Teaching Assistant** 2009-2013

**Faculty of Graduate Studies for Statistical Research**

- Experience in Fertility, Introduction to Statistics, and Probability.
- Planning lessons and assignments.
- Grading papers and exams.

**Data Analyst**

National Council of Childhood & Motherhood, Information Centre 2005-2009

**Projects:**

- Girls' Education project: Data Analysis. 2005-2007
- Child Labor: Data analysis. 2005-2007
- Homeless children: Data entry and data analysis. 2008
- Preparing for a report of "Childhood Indicators": Collecting indicators from DHS, statistical yearbook, the human development report, the Ministry of education website, UNICEF report, Ministry of health and population website. 2008

**Data Analyst**

Elzanaty & ASSOCIATES for Studies and Research Nov2004-May2005

**Projects:**

**DHS 2005:**

- Researchers' Evaluation.
- Revising Questionnaires' Consistency.
- Coding Data.

## **Publications**

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Elsaadani, S., Ibrahim, Sarah A. (2014), "Using Dynamic Random Effect Models in Studying Determinants of Intrauterine Fetal Loss in Egypt", *The Egyptian Population and Family Planning Review*, 47(2). P.1-24.

El-Saadani S, Saleh M, Ibrahim SA (2021) Quantifying non-communicable diseases' burden in Egypt using State-Space model. *PLoS ONE* 16(8): e0245642.  
<https://doi.org/10.1371/journal.pone.0245642>.

## **Paper under review**

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Ibrahim, Sarah A., Saleh, M (2021) Economic Implications of Non-communicable Diseases through Demographic Pathways in Egypt (Submitted, pending review).

## **Suggested Future Research**

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The social determinants of non-communicable diseases' burden in Egypt.

The health and economic implications of climate change in Egypt.

The demographic impact on economic growth in Egypt using system dynamics.

## **Technical skills**

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- Latex, Microsoft Office: PowerPoint Presentations, Word, Excel.
- Statistical and mathematical packages: Spss, Stata, Vensim, R, Stella and Matlab.

## **Language Skills**

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- English: Proficient.
- German: Basic reading and writing.

## Courses and Workshops

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- System Dynamics Modeling and Analysis, University of Bergen. 2022
- Reviewing in science, Web of Science. 2021
- Data visualization – the art/skill cocktail – online course, Max Plack Institute. 2021
- Participation in the 2020 covid19 computational challenge by the city of Los Angeles and RMDS Lab. 2020
- Developing the SIR Models, Imperial College London. 2020
- Building on the SIR Model, Imperial College London. 2020
- Interventions and Calibration, Imperial College London. 2020
- Summary Statistics in Public Health, Johns Hopkins. 2020
- Computational demography, Max Plack Institute. 2020
- Infectious disease models, Imperial College London. 2020
- Essentials of global health, Yale University. 2018
- Writing in sciences, Stanford University. 2017
- Training workshop on the use of the survey of young people in Egypt (SYPE) data, International Population Council, Cairo. 2011
- Ford young scholars Program, American University in Cairo. 2011
- Ministry of Defense Language Institute. 2004
- British council. 2002/2003

## References

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- **Mohammed M. Saleh, Professor.**

Operations Research and Decision Support Department. Faculty of Computers and Artificial Intelligence. Cairo University.  
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- **Somaya M. Elsaadani, Emeritus Professor.**

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