

Bilal Barakat

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As a researcher, policy analyst and lecturer I have twenty years of experience improving our understanding of education systems, with an emphasis on education statistics and demographic perspectives. My analyses have appeared in leading academic journals and have informed the work of the Intergovernmental Panel on Climate Change (IPCC), UNESCO, the World Bank and other international organizations. Now, I am a founding partner of benedex. A boutique consultancy established in Vienna at the end of 2022, we offer expertise in international development and education from January 2023, including research and analysis, technical advice and support, knowledge generation, as well as capacity development and training.

PROFESSIONAL EXPERIENCE

Selected Consultancies since 2005

UNESCO Institute for Statistics – joint model to reconcile global out-of-school and completion rate statistics

UNESCO Education Sector – methodological proposals for a data quality assurance framework and a severity index for attacks on education data

Education Above All – review analysis of drivers of global out-of-school child statistics

NORRAG/KIX-EMAP and Kingdom of Cambodia Ministry of Education, Youth, and Sport – teacher demand/supply policy analysis simulation for the Phnom Penh capital province

UNESCO Education Sector – country policy analysis of Sudan's education system, incl. two weeks of fieldwork and stakeholder interviews, partly in Arabic

UNESCO Institute for Statistics – critical methodological analysis of a proposed lead indicator for SDG 4

UNESCO Institute for Statistics – developed and implemented (in R) an updated methodology for estimating a typology of out-of-school children

Education Data Surveys, Oxford – policy analysis and statistical modelling of hard-to-fill headteacher vacancies for the National College for School Leadership NCSL; policy analysis of diversity in teacher training recruitment for the Training & Development Agency for Schools (TDA)

Past Employment	Global Education Monitoring (GEM) Report - UNESCO, Paris, France Senior Policy Analyst (Monitoring Lead)	2018–22
	Member of the GEM Report senior management team (UN grade P5) and leader of a team of up to six staff members and long-term consultants. Responsibility for overseeing the conceptualisation, analysis and final drafting of chapters on monitoring each SDG 4 target, as well as the GEM Report's data products, including the World Inequality Database on Education (WIDE).	
	Vienna Institute of Demography (VID), Austrian Academy of Sciences Research Scholar	2008–20
	World Population Program, International Institute for Applied Systems Analysis (IIASA), Laxenburg, Austria Research Scholar	2008–17
	Research Institute Human Capital and Development, Wirtschaftsuniversität Wien (WU) Post-doctoral Researcher	2015–16

DEGREES

Habilitation in Social Statistics, Vienna University of Economics and Business	2017
D.Phil., University of Oxford, Department of Education	2010
M.Sc. Mathematics and Foundations of Computer Science, University of Oxford	2002
B.A. Hons. Mathematics, University of Cambridge	2001

TEACHING

Courses ten semester-long lecture courses in Statistics, Econometrics, and Demography at undergraduate and graduate levels at the University of Vienna, the Vienna University of Economics and Business (WU), and the Johannes Kepler University Linz

Supervision supervision of one doctoral researcher and one master's student at the Vienna University of Economics and Business (WU), as well as two doctoral students participating in IIASA's 'Young Scientists Summer Programme' (YSSP).

OTHER ACTIVITIES AND CONTRIBUTIONS

Referee for *Science, Annals of Applied Statistics, Area, Asian Population Studies, Comparative Education Review, Conflict Management and Peace Science, Demography, European Journal of Population, European Sociological Review, Globalisation, Societies and Education, International Journal of Educational Development, Journal of Conflict Resolution, Journal of Economic and Social Geography, Journal of Peace Research, Journal of Rural Studies, Prospects Quarterly Review of Education, Research in Comparative and International Education, Sage Open (Article Editor), Sociology of Education, Tijdschrift voor economische en sociale geografie (TESG)*

Expert Panel Membership	SDG 4 Technical Cooperation Group (TCG)	2019-21
	Inter-agency Education Equity Research Initiative	2016-20
	UNECE Task Force on Measuring Human Capital	2014-2018
	International Network for Education Simulation Modeling	2008-2010

ADDITIONAL SKILLS AND QUALIFICATIONS

Computing

- proficient user of office applications on Windows and Mac
- statistical programming in R, Stata, SAS, SPSS, Mathematica
- typesetting using LaTeX
- interactive web design using html, css, Javascript

Languages German (fluent), English (fluent), French (low intermediate), Arabic (low intermediate)

SELECTED PUBLICATIONS

- refereed articles** Gustafsson, M., and B. Barakat. 2023. Marginalized Learners in International and Regional Test Data: The Extent of Floor Effects. *Comparative Education Review* 67 (3): 509–33. doi:10.1086/725442
- Dharamshi, A., B. Barakat, L. Alkema, and M. Antoninis. 2022. “A Bayesian Model for Estimating SDG Indicator 4.1.2: School Completion Rates.” *Journal of the Royal Statistical Society: Series C (Applied Statistics)* 71 (5): 1822–64. doi:10.1111/rssc.12595
- Barakat, B., and R. Shields. 2019. “Just Another Level? Comparing Quantitative Patterns of Global School and Higher Education Expansion.” *Demography* 56 (3): 917–34. doi:10.1007/s13524-019-00775-5.
- Barakat, B., and S. Bengtsson. 2018. “What Do We Mean by School Entry Age? Conceptual Ambiguity and Its Implications: The Example of Indonesia.” *Comparative Education* 54 (2): 203–24.
- Barakat, B., and J. Crespo Cuaresma. 2017. “Credit Where Credit Is Due: An Approach to Education Returns Based on Shapley Values.” *Education Economics* 25 (5): 533–41.
- Barakat, B.. 2018. “Time Is Money: Disentangling Higher Education Cost-Sharing and Commodification Through Deferred Graduate Retirement.” *Higher Education Policy* 31 (3): 289–307.
- Barakat, Bilal. 2017. “Generalised count distributions for modelling parity.” *Demographic Research* 36 (26): 745–58. doi:10.4054/DemRes.2017.36.26.
- Abel, Guy, Bilal Barakat, Samir KC, and Wolfgang Lutz. 2016. “Meeting the Sustainable Development Goals Leads to Lower World Population Growth.” *Proceedings of the National Academy of Sciences (PNAS)* 113 (50): 14294–99. doi:10.1073/pnas.1611386113.
- Barakat, B.. 2016. “Improving Adult Literacy Without Improving the Literacy of Adults? A Cross-National Cohort Analysis.” *World Development* 87: 242–57. doi:10.1016/j.worlddev.2016.06.015.
- Barakat, B.. 2016. “‘Sorry I Forgot Your Birthday!’: Adjusting Apparent School Participation for Survey Timing When Age Is Measured in Whole Years.” *International Journal of Educational Development* 49: 300–313. doi:10.1016/j.ijedudev.2016.03.011.
- Goujon, A., S. Kc, M. Springer, B. Barakat, M. Potancoková, J. Eder, E. Striessnig, R. Bauer, and W. Lutz. 2016. “A Harmonized Dataset on Global Educational Attainment Between 1970 and 2060: An Analytical Window into Recent Trends and Future Prospects in Human Capital Development.” *Journal of Demographic Economics* 82 (3): 315–63. doi:10.1017/dem.2016.10.
- Barakat, B.. 2015. “A ‘Recipe for Depopulation’? School Closures and Local Population Decline in Saxony.” *Population, Space and Place* 21 (8): 735–53.

Zhao, D., and B. Barakat. 2015. "The Increasingly Long Road to School in Rural China: The Impacts of Education Network Consolidation on Broadly Defined Schooling Distance in Xinfeng County of Rural China." *Asia Pacific Education Review* 16 (3): 413–31. doi:10.1007/s12564-015-9380-y.

Barakat, B., and S. Basten. 2014. "Modelling the Constraints on Consanguineous Marriage When Fertility Declines." *Demographic Research* 30 (9): 277–312. doi:10.4054/DemRes.2013.30.9.

Barakat, B., and R. E. Durham. 2013. "Drop-Out Mayors and Graduate Farmers: Educational Fertility Differentials by Occupational Status and Industry in Six European Countries." *Demographic Research* 28 (42): 1213–62. doi:10.4054/DemRes.2013.28.42.

Barakat, B., R. E. Durham, and C. Rodrigues Guimarães. 2013. "Age Compositional Adjustments for Educational Participation Indicators." *Population* 68 (4): 607–26.

Barakat, B.. 2012. "A Second Look at School-Life Expectancy." *International Journal of Educational Development* 32 (4): 564–74. doi:10.1016/j.ijedudev.2011.09.006.

KC, S., B. Barakat, A. Goujon, V. Skirbekk, and W. Lutz. 2010. "Projection of Populations by Level of Educational Attainment, Age and Sex for 120 Countries for 2005–2050." *Demographic Research* 22 (15). doi:10.4054/DemRes.2010.22.15.

Barakat, B.. 2008. "Education and Intra-Alliance Conflict: Contrasting and Comparing Popular Struggles in Apartheid South Africa and Palestine." *Research in Comparative and International Education* 3 (1). Symposium Journals: 5–18. doi:10.2304/rcie.2008.3.1.5.

**contributions
to edited
volumes**

Spiel, S. et al. 2018. "The Contribution of Education to Social Progress." In *Rethinking Society for the 21st Century: Report of the International Panel on Social Progress*, 753–78. Cambridge University Press.

Bengtsson, S., B. Barakat, and R. Muttarrak. 2018. *The Role of Education in Enabling the Sustainable Development Agenda*. Routledge.

Barakat, B.. 2016. "Education Trends in India: Recent Census Results in Context." In *Contemporary Demographic Transformations in China, India and Indonesia*, edited by Gavin Jones and Christophe Guilmoto, 177–93. Springer. doi:10.1007/978-3-319-24783-0_11.

Moser, E., A. Prskawetz, G. Feichtinger, and B. Barakat. 2016. "Maximizing Female Labor Force Participation in a Stationary Population." In *Dynamic Perspectives on Managerial Decision Making*, edited by H. Dawid, K. F. Doerner, G. Feichtinger, P. M. Kort, and A. Seidl, 167–88. Springer.

Barakat, B., and R. E. Durham. 2014. "Future Education Trends." In *World Population and Human Capital in the 21st Century*, edited by W. Lutz, W. P. Butz, and S. KC. Oxford University Press.

Skirbekk, V., E. Loichinger, and B. Barakat. 2012. "The Aging of the Workforce in European Countries: Demographic Trends, Retirement Projections, and Retirement Policies." In *The*

Oxford Handbook of Work and Aging, edited by J. W. Hedge and W. C. Borman. New York: Oxford University Press.

Barakat, B., D. Carson, A. Taylor, R. Basu, and L. Wang. 2011. "Education, Remoteness and Population Dynamics." In *Demography at the Edge: Remote Human Populations in Developed Nations*, edited by D. Carson, R. Rasmussen, P. C. Ensign, A. Taylor, and L. Huskey, 225–70. Farnham, England: Ashgate.

Barakat, B.. 2009. "Unterschiede Im Geburtenverhalten Nach Ausbildungsniveau." In *Familienentwicklung in Österreich: Erste Ergebnisse Des Generations and Gender Survey (GGS) 2008/09*, edited by I Buber and N Neuwirth. Vienna: Austrian Academy of Sciences & Austrian Institute for Family Studies.

Barakat, B.. 2009. "Deepening the Divide: The Differential Impact of Protracted Conflict on Tvet Vs Academic Education in Palestine." In *International Handbook of Education for the Changing World of Work*, edited by R. Maclean and D. Wilson, 978–71. Springer. doi:10.1007/978-1-4020-5281-1_54.

Barakat, B.. 2007. "The Struggle for Palestinian National Education Past and Present." In *Aspects of Education in the Middle East and North Africa*, edited by C. Brock and L. Levers. Oxford: Symposium.

book reviews Barakat, B.. 2017. "Review of "Coping with Demographic Change. A Comparative View on Education and Local Government in Germany and Poland" by Reinhold Sackmann, Walter Bartl, Bernadette Jonda, and Katarzyna Kopycka." *International Sociology* 32 (5): 657–60.

Barakat, B.. 2012. "Review of 'Trajectories of Education in the Arab World: Legacies and Challenges' Ed. By Osama Abi-Mershed." *Compare* 42 (3): 549–51. doi:10.1080/03057925.2012.657927.

Barakat, B.. 2009. "Review of 'Economic Development, Education and Transnational Corporations' by Mark Hanson." *Comparative Education* 45 (1): 131–40. doi:10.1080/03050060802661436.

Barakat, B.. 2008. "Review of 'the Emergence of a Palestinian Globalized Elite: Donors, International Organizations and Local NGOs' by Sari Hanafi and Linda Tabar." *Journal of Refugee Studies* 20 (1): 154–56. doi:10.1093/jrs/fel037.