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EDUCATION

PhD, University of California, Berkeley, Demography	1987 – 1991
MPP, University of Michigan, Ann Arbor, Public Policy	1983 – 1985
AB, University of Michigan, Ann Arbor, International Relations	1980 – 1984

CURRENT AND PAST POSITIONS

Professor, School of Public Affairs, Baruch College, City University of New York, 2010–present. (Associate Professor, October Fall 2006–2009)

Professor, Graduate Center, City University of New York (CUNY), Program in Economics, January 2007–present; Program in Sociology, 2010–present; School of Public Health (Epidemiology), January 2014–2016/CUNY School of Public Health (Epidemiology), 2017–. (Associate Professor, October Fall 2006–2009)

Associate Director, CUNY Institute for Demographic Research, August 2007–present (Acting, October 2006–July 2007)

Visiting Professor, Woodrow Wilson School, Princeton University, Spring 2016 and 2017

Research Scientist, Center for International Earth Science Information Network (CIESIN), Columbia University, June 2006–present (as Adjunct, starting Oct 2006) (Associate Research Scientist, 1998–June 2006)

Lead Project Scientist, Socioeconomic Data and Applications Center, CIESIN, Columbia University, 2000–2006

Adjunct Assistant Professor, Department of Sociology, Columbia University, Winter 2000

Co-Project Scientist, Socioeconomic Data and Applications Center, CIESIN, Columbia University, 1998–2000

Research Fellow, Program on Population, East-West Center, 1994–1997

Mellon Post-Doctoral Scholar, Population Studies Center, University of Michigan, 1991–1994

Adjunct Assistant Professor, Department of Sociology, University of Michigan, Winter 1993

Resident Consultant, International Centre for Diarrhoeal Disease Research, Bangladesh, 1985–1987

Awards

Andrew Carnegie Fellow, Carnegie Corporation of New York, 2016-2018

PUBLICATIONS

Peer-reviewed Publications

1. Liu, Z. and **D. Balk**. 2020 (forthcoming). “Urbanization and Differential Vulnerability to Coastal Flooding among Migrants and non-Migrants in Bangladesh,” *Population, Space and Place*
DOI:10.1002/psp.2334
2. C. Mills, G. Johnson, T. Huang, **D. Balk** and K. Wyka, 2020 (forthcoming). “Use of small area estimates to describe county level geographic variation in prevalence of extreme obesity among US adults,” *JAMA Network Open*.
3. B. Jones, **D. Balk**, and S. Leyk. 2020. “Urban Change in the United States, 1990-2010: A Spatial Assessment of Administrative Reclassification,” *Sustainability* 12(4), 1649;
<https://doi.org/10.3390/su12041649>
4. S. Leyk, **D. Balk**, B. Jones, M. Montgomery, and H. Engin, 2019. “Heterogeneity and Change in Urban Population and Structure in the United States, 1990-2010,” *Scientific Data* 6:321-335
<https://doi.org/10.1038/s41597-019-0329-6>
5. S. Leyk, A.E. Gaughan, S.B. Adamo, A. de Sherbinin, **D. Balk**, S. Freire, A. Rose, F.R. Stevens, B. Blankespoor, C. Frye, J. Comenetz, A. Sorichetta, K. MacManus, L. Pistolesi, M. Levy, A.J. Tatem and M. Pesaresi, 2019. “The spatial allocation of population: A review of large-scale gridded population data products and their fitness for use,” *Earth System Science Data* 11: 1385–1409,
<https://doi.org/10.5194/essd-11-1385-2019>
6. B. Jones, F. Riosmena, D. H. Simon, and **D. Balk**, 2019. “Estimating Internal Migration in Contemporary Mexico and its Relevance in Gridded Population Distributions” *Data*, 4(2), 50.
<https://doi.org/10.3390/data4020050>
7. **D. Balk**, M. Montgomery, H. Engin, E. Major, N. Lin, and B. Jones, 2019. “Urbanization in India: Population and Urban Classification Grids for 2011,” *Data*, 4(1): 35.
<https://doi.org/10.3390/data4010035>
8. G. Dunn, G. Johnson, G. N. Sembajwe, and **D. Balk** 2019. Spatially varying relationships between risk factors and child diarrhea in West Africa, 2008-2013,” *Mathematical Population Studies*.
<https://doi.org/10.1080/08898480.2019.1592638>
9. E. W. Sanderson, J. Moy, C. Rose, K. Fisher, B. Jones, **D. Balk**, P. Clyne, D. Miquelle and J. Walston, 2019. “Implications of the shared socioeconomic pathways for tiger (*Panthera tigris*) conservation,” *Biological Conservation* 231 (2019): 1-23. <https://doi.org/10.1016/j.biocon.2018.12.017>
10. **D. Balk**, S. Leyk, B. Jones, M. Montgomery, and A. Clark, 2018. “Understanding Urbanization: A study of census and satellite-derived urban classes in the United States, 1990-2010” *PLOSOne*, December 26, 2018. <https://doi.org/10.1371/journal.pone.0208487>
11. J.H. Uhl, H. Zoraghein, S. Leyk, **D. Balk**, C. Corbane, V. Syrris and A.J. Florczyk, 2018. “Exposing the urban continuum: Implications and cross-comparison from an interdisciplinary perspective,” *International Journal of Digital Earth*. <http://dx.doi.org/10.1080/17538947.2018.1550120>
12. **D. L. Balk**, S. V. Nghiem, B. R. Jones, Z. Liu, and G. Dunn, 2018. “Up and out: A multifaceted approach to characterizing urbanization in Greater Saigon, 2000–2009,” *Landscape and Urban Planning*.
<https://doi.org/10.1016/j.landurbplan.2018.07.009>
13. S. Leyk, Uhl J.H., **Balk D.L.**, and B. Jones, 2018. “Assessing the Accuracy of Multi-Temporal Built-Up Land Layers across Rural-Urban Trajectories in the United States,” *Remote Sensing of the Environment*. 204 (2018): 898-917. <https://doi.org/10.1016/j.rse.2017.08.035>
14. A. Dev and **D. Balk**, 2015. “Urbanization, Women and Weight Gain: Evidence from India, 1998-2006. *Spatial Demography* 3(1):1-25. <https://doi.org/10.1007/s40980-015-0001-5>

15. W. Solecki, K. C. Seto, **D. Balk**, A. Bigio, C. G. Boone, F. Creutzig, M. Fragkias, P. Romero-Lankao, S. Lwasa, P. Marcotullio, T. Zwickel, 2015. "A conceptual framework for an urban area typology to integrate climate change mitigation and adaptation," *Urban Climate* 14: 116-137. <https://doi.org/10.1016/j.uclim.2015.07.001>
16. R.I. McDonald, K. Weber, J. Padowski, M. Flörke, C. Schneider, P. Green, T. Gleeson, S. Eckman, B. Lehner, **D. Balk**, T. Boucher, G. Grill, and M. Montgomery, 2014. "Water on an urban planet: urbanization and the reach of urban water infrastructure," *Global Environmental Change*, Vol. 27: July 2014: 96–105. <https://doi.org/10.1016/j.gloenvcha.2014.04.022>
17. A. Dorelien, **D. Balk** and M. Todd 2013. "What is Urban? Comparing a Satellite View with Demographic & Health Surveys," *Population and Development Review* 39(3): 413–439. <https://doi.org/10.1111/j.1728-4457.2013.00610.x>
18. A. Tatem, S. Adamo, N. Bharti, C. R Burgert, M. Castro, A. Dorelien, G. Fink, C. Linard, J. Mendelsohn, L. Montana, M. R Montgomery, A. Nelson, A. M Noor, D. Pindolia, G. Yetman and **D. Balk**. 2012 "Mapping populations at risk: Improving spatial demographic data for infectious disease modeling and metric derivation" *Population Health Metrics* 10:8 (2012). <https://doi.org/10.1186/1478-7954-10-8>
19. R.I. McDonald, P. Green, **D. Balk**, B. Fekete, C. Revenga, M. Todd, and M. Montgomery, 2011. "Urban growth, climate change, and freshwater availability," *Proceedings of the National Academy of Sciences*, 3(21): 1-6. <http://www.pnas.org/cgi/doi/10.1073/pnas.1011615108>
20. C. Small, C. Elvidge, **D. Balk**, and M. Montgomery, 2011. "Spatial Scaling of Stable Night Lights," *Remote Sensing of the Environment* 115 (2011): 269–280. Available [on-line](#).
21. M.R. Montgomery and **D. Balk**, 2011. "The Urban Transition in Developing Countries: Demography Meets Geography" in E. Birch and S. Wachter (eds.), *Global Urbanization*. (Philadelphia: University of Pennsylvania Press).
22. **D. Balk**, 2009. "More than a name: Why is Global Urban Population Mapping a GRUMPY proposition?" In P. Gamba and M. Herold, (eds.) *Global Mapping of Human Settlement: Experiences, Data Sets, and Prospects*, New York: Taylor and Francis, pp. 145-161. Available [on-line](#).
23. S. V. Nghiem, **D. Balk**, E. Rodriguez, G. Neumann, A. Sorichetta, C. Small. and C. D. Elvidge, 2009. "Observations of Urban and Suburban Environments with Global Satellite Scatterometer Data," *ISPRS Journal of Photogrammetry and Remote Sensing* 64 (2009): 367-380. Available [online](#).
24. M. Wirth, E. Sacks, E. Delamonica, A. Minujin, A. Storeygard, and **D. Balk**, 2008. "Delivering" on the MDGs: Equity and maternal health in Ghana, Ethiopia and Kenya," *East African Journal of Public Health* 5(3): 133-141. PMID: 19374312
25. **D. Balk**, G. McGranahan, and B. Anderson, 2008. "Urbanization and Ecosystems: recent patterns and future implications," in G. Martine, G. McGranahan, and M. Montgomery (eds.) The New Global Frontier: Cities, Poverty And Environment In The 21st Century (London: Earthscan Publishers), pp: 183-201. Available via [google books](#).
26. G. McGranahan, **D. Balk** and B. Anderson, 2008. "A summary of the risks of climate change and urban settlement in low elevation coastal zones" in G. Martine, G. McGranahan, and M. Montgomery (eds.) The New Global Frontier: Cities, Poverty And Environment In The 21st Century (London: Earthscan Publishers), pp: 165-181. Available via [google books](#).
27. A. Storeygard, **D. Balk**, M. Levy and G. Deane, 2008. "The Global Distribution of Infant Mortality: A Subnational Spatial View," *Population, Space and Place*, 14 (3): 209-229. <https://doi.org/10.1002/psp.484>
28. K.E. Jones, N. G. Patel, M. A. Levy, A. Storeygard, **D. Balk**, J. L. Gittleman, and P. Daszak, 2008. "Global trends in emerging infectious diseases" *Nature*, 451: Feb 2008: 990-994. <https://doi.org/10.1038/nature06536>

29. S. Doocy, G. Burnham, Y. Gorokhovich, D. **Balk** and C. Robinson, 2007. "Tsunami Mortality Estimates and Vulnerability Mapping in Aceh, Indonesia," *American Journal of Public Health*. (S1): S146–S151. Available [on-line](#). PMID: 17413062
30. G. McGranahan, D. **Balk** and B. Anderson, 2007. "The rising tide: Assessing the Risks of Climate Change and Human Settlements in Low Elevation Coastal Zones," *Environment and Urbanization*. 19(1):17-37. <https://journals.sagepub.com/doi/pdf/10.1177/0956247807076960> (Reprinted in *Adapting Cities to Climate Change* in J. Bicknell, D. Dodman, and D. Satterthwaite London: Earthscan, 2009).
31. D. **Balk**, M. Wirth, E. Delamonica, A. Storeygard, E. Sacks, and A. Minujin, 2006. "Multidimensional disparities in maternal and child health: Measuring a baseline, Monitoring the future," in *Human Rights and Social Policies for Children and Women: The Multiple Indicator Cluster Survey (MICS) in Practice*, A. Minujin and E. Delamonica, eds. (New York: New School University).
32. M. Wirth, D. **Balk**, E. Delamonica, A. Storeygard, E. Sacks, and A. Minujin, 2006. "Setting the stage for equity-sensitive monitoring of the maternal and child health MDGs," *Bulletin of the World Health Organization*, 84(7): 519-527. Available [on-line](#). PMID: 16878225
33. D. L. **Balk**, U. Deichmann, G. Yetman, F. Pozzi, S.I. Hay, and A. Nelson, 2006, "Determining Global Population Distribution: Methods, Applications and Data," in Hay, S.I., Graham, A.J. and Rogers, D.J. (eds), *Global mapping of infectious diseases: methods, examples and emerging applications. Advances in Parasitology*, volume 62. (London: Academic Press), pp. 119-156. Available [on-line](#): PMID: 16647969
34. D. **Balk**, A. Storeygard, M. Levy, J. Gaskell, M. Sharma, R. Flor, 2005. "Child hunger in the developing world: An analysis of environmental and social correlates," *Food Policy*, 30: 5-6 (2005) 584–611. <http://dx.doi.org/10.1002/psp.328>
35. L. VanWey, R. Rindfuss, M. Gutmann, B. Entwisle, and D. **Balk**, 2005. "Confidentiality and Spatially Explicit Data: Concerns and Challenges," *Proceedings of the National Academy of Sciences*, 102 (43): 15337–15342. Available [on-line](#). PMID: 16230608
36. McGranahan, P. Marcotullio, X. Bai, D. **Balk**, T. Braga, I. Douglas, T. Elmqvist, W. Rees, D. Satterthwaite, J. Songso, and H. Zlotnik, 2005. "Urban Systems", Chapter 22 in *Conditions and Trends Assessment of the Millennium Ecosystem Assessment*, Chicago: Island Press. Available [on-line](#).
37. R. deFries, S. Pagiola, W.L. Adamowicz, H. Akçakaya, A. Arcenas, S. Babu, D. **Balk**, U. Confalonieri, W. Cramer, F. Falconí, S. Fritz, R.Green, E. Gutiérrez-Espeleta, K. Hamilton, R. Kane, J. Latham, E. Matthews, T. Ricketts, T. X. Yue, 2005. "Analytical Approaches for Assessing Ecosystem Condition and Human Well-Being," Chapter 3 in the in *Conditions and Trends Assessment of the Millennium Ecosystem Assessment*, Chicago: Island Press.
38. D. **Balk**, T. Pullum, A. Storeygard, F. Greenwell, M. Neuman, 2004. "A Spatial Analysis of Childhood Mortality in West Africa" *Population, Space and Place* 10: 175-216. Available [on-line](#).
39. K. Yount and D. **Balk**, 2004. "A Demographic Paradox: Causes and consequences of Female Genital Cutting in Northeastern Africa." *Advances in Gender Research* 8: 199-249.
40. B. O'Neill and D. **Balk**, September 2001. "Projecting World Population Futures" *Population Bulletin* 56(3). Available [on-line](#).
41. B. O'Neill, D. **Balk**, M. Brickman, and M. Ezra. 2001. "A guide to global population projections" *Demographic Research*, 4 (8): 203-288, available on-line as a [journal](#) article and as an on-line [guide](#).
42. D. **Balk**. 2000. "To Marry and Bear Children? The Demographic Consequences of Female Circumcision in the Sudan," in *Female 'Circumcision' in Africa: Culture, Controversy and Change*, Bettina Shell-Duncan and Ylva Hernlund (eds), Lynne Rienner Publishers. Available [on-line](#).
43. D. **Balk**. 1997. "Defying Gender Norms in Rural Bangladesh: A Social Demographic Analysis," *Population Studies*, 51(2): 153–172. Available [on-line](#).
44. D. **Balk** and S. Lahiri. 1997. "Awareness and Knowledge of AIDS among Indian Women," *Health Transition Review*, 7 (Supplement): 421–465. Available [on-line](#). PMID: 10169658

45. **D. Balk**, 1994. "Individual and Community Aspects of Women's Status and Fertility in Rural Bangladesh," *Population Studies*, 48(1): 21–45. Available [on-line](#).
46. G. Simmons, **D. Balk** and K. K. Faiz, 1991. "A Cost-Effectiveness Analysis of Family Planning Programs in Rural Bangladesh: Evidence from Matlab," *Studies in Family Planning*, 22(2): 83-101. Available [on-line](#). PMID: 1907039

Chapters in other reviewed outlets: Edited volumes, encyclopedias, etc.

1. Ehrlich, D., **D. Balk** and R. Sliuzas (2020) Measuring and understanding global human settlements patterns and processes: innovation, progress and application, Introduction to Special Issues of Patterns and processes of Global Human Settlement Development and Dynamics, *International Journal of Digital Earth*, 13:1, 2-8, [DOI: 10.1080/17538947.2019.1630072](https://doi.org/10.1080/17538947.2019.1630072)
2. **D. Balk** and K. Grace, 2019. "Investigating demographic processes sensed and demographic data," *Population and Environment* (2019) 41:71–73, <https://doi.org/10.1007/s11111-019-00330-9>.
3. M. Montgomery and **D. Balk**, 2018. "The Urbanization of Low- and Middle-Income Asia", in A. Hayes and Z. Zhao (eds.), *Routledge Handbook of Asian Demography*, pp. 285-309.
4. Reckien, D., S. Lwasa, D. Satterthwaite, D. McEvoy, F. Creutzig, M. Montgomery, D. Schensul, **D. Balk**, I. Khan, B. Fernandez, D. Brown, J. C. Osorio, M. Tovar-Restrepo, A. de Sherbinin, W. Feringa, A. Sverdlik, E. Porio, A. Nair, S. McCormick, and E. Bautista, 2018. "Equity, Environmental Justice, and Urban Climate Change," in *Climate Change and Cities* in C. Rosenzweig et al. Cambridge, UK: Cambridge University Press. <https://doi.org/10.1017/9781316563878>
5. **D. Balk** and M. Montgomery, 2015. "Guest Editorial: Spatializing Demography for the Urban Future" *Spatial Demography* 3(2): pp.59-62. <https://doi.org/10.1007/s40980-015-0017-x>
6. M. Montgomery, **D. Balk** and Z. Liu, Siddharth Agarwal, Eleri Jones, and Susana Adamo, 2015. "Urban Migration of Adolescent Girls: Quantitative Results from Developing Countries," In. M. White (ed). *International Handbook of Migration and Population Distribution*, NY: Springer International Publishing.
7. **D. Balk**, M. Montgomery. G. McGranahan, 2014. "Coastal Demography: Distribution, Composition, and Dynamics," in R. Bowen et al (eds), *Oceans and Human Health: Implications for Society and Well-Being*, New York: Wiley Blackwell, pp. 49-70.
8. S. Nghiem, A. Sorichetta, C. Elvidge, C. Small, **D. Balk**, U. Deichmann, and G. Neumann, 2014. "Urban Environments, Beijing Case Study," in E. Njoku (ed), *Encyclopedia of Remote Sensing* New York: Springer Reference, pp. 869-878.
9. **D. Balk**, J.M. Guzman and D. Schensul, 2013. "Harnessing Census Data for Environment and Climate Change Analysis," In G. Martine and D. Schensul (eds), *The Demography of Adaptation to Climate Change*. New York, London and Mexico City: UNFPA, IIED, & El Colegio de Mexico, pp: 74-95. Available [on-line](#).
10. G. McGranahan, **D. Balk**, G. Martine, and C. Tacoli, 2013. "Fair and Effective Responses to Urbanization and Climate Change: Tapping Synergies and Avoiding Exclusionary Policies, In In G. Martine and D. Schensul (eds), *The Demography of Adaptation to Climate Change*. New York, London and Mexico City: UNFPA, IIED, and El Colegio de Mexico, pp 24-40. Available [on-line](#).
11. **D. Balk**, M. R. Montgomery, G. McGranahan, D. Kim, V. Mara, M. Todd, T. Buettner, and A. Dorelien, 2009. "Mapping Urban Settlements and the Risks of Climate Change in Africa, Asia, and South America," In G. Martine, J.M. Guzman, G. McGranahan, D. Schensul, and C. Tacoli (editors), *Population Dynamics and Climate Change*, New York: United Nations Population Fund and International Institute for the Environment and Development, pp. 80-103. Available [on-line](#).
12. **D. Balk**, M. R. Montgomery, G. McGranahan, and M. Todd, 2009. "Understanding the Impacts of Climate Change: Linking Satellite and Other Spatial Data with Population Data ," In G. Martine, J.M.

- Guzman, G. McGranahan, D. Schensul, and C. Tacoli (editors), *Population Dynamics and Climate Change*, New York: United Nations Population Fund and International Institute for the Environment and Development, pp. 206-217. Available [on-line](#).
13. **D. Balk**, D. 2008. "Urban Population Distribution And The Rising Risks Of Climate Change," In *United Nations Expert Group Meeting On Population Distribution, Urbanization, Internal Migration and Development* (New York, 21 – 23 January 2008), NY: United Nations (Publication ESA/WP.206), pp. 335-344. Available [on-line](#).
 14. G. McGranahan, **D. Balk** and B. Anderson, 2008. "Climate Change and the Risks of Settlement in the Low Elevation Coastal Zone," Newsletter of the Integrated Management of Coastal and Freshwater Systems, (January). Also appeared in the *IHDP Update* (Oct 2007), Magazine of the International Human Dimensions Programme on Global Environmental Change; and *The Edge: The Magazine of CoastNet* (Autumn 2007). Available at: http://www.imcafs.org/coastsheds/issues/article_2.1.2.swf
 15. Contributor to *State of the World Population 2007: Unleashing the Potential of Urban Growth*. New York: UNFPA (United Nations Fund for Population Activities) Available at: http://www.unfpa.org/swp/2007/presskit/pdf/sowp2007_eng.pdf
 16. G. McGranahan, **D. Balk** and B. Anderson, (2006). "Low coastal zone settlements" *Tiempo: A Bulletin on Climate and Development*, issue 59: April. Available at: <http://sedac.ciesin.columbia.edu/gpw/lec.z.jsp>.
 17. **D. Balk**, M. Brickman, B. Anderson, F. Pozzi, G. Yetman, 2005. "Estimates of Future Global Population Distribution to 2015," Annex in M. Salvatore, F. Pozzi, E. Ataman, B. Huddleston and M. Bloise, *Mapping global urban and rural population distributions*, Environmental and Natural Resources Working Paper N. 24, (Rome: United Nations Food and Agriculture Organization). Available at: <http://www.fao.org/docrep/009/a0310e/A0310E10.htm>

Selected Policy Papers & Reports, Recent Working Papers, or Conference Proceedings (largely unreviewed):

18. M. Montgomery, **D. Balk**, Z. Liu, and D. Kim, 2013, Understanding City Growth in Asia's Developing Countries: The Role of Internal Migration, Asian Development Bank, Economics Working Paper Series.
19. M. Levy, **D. Balk**, G. Deane, A. Storeygard, and S. Ahamed, "The Geographical Correlates of Global Poverty," Paper presented at the Open Meeting of Human Dimensions of Global Change Research, Bonn, Germany, October 2005. Available at: <http://sedac.ciesin.columbia.edu/povmap/applications.jsp>
20. **D. Balk**, F. Pozzi, G. Yetman, U. Deichmann, and A. Nelson. 2005. "The distribution of people and the dimension of place: Methodologies to improve the global estimation of urban extents." International Society for Photogrammetry and Remote Sensing Proceedings of the Urban Remote Sensing Conference, Tempe, AZ, March 2005. Available at: <http://www.iussp.org/Activities/wgc-urb/balk.pdf>
21. **D. Balk**, Y. Gorokhovich, and M. Levy, 2005. "Estimates of Coastal Population Exposed to the 26 December 2004 Tsunami," Note prepared for the Humanitarian Information Unit of the US Department of State, 7 January 2005, available at <http://www.ciesin.columbia.edu/tsunami2004.html> (and Presented at the Columbia University School of International and Public Affairs, "Tectonics, Politics and Ethics: The Tsunami and Its Aftermath, March 2005).
22. **D. Balk**, A. Storeygard, and G. Booma, "Mapping Access to Maternal Health Care Facilities in Bangladesh", Prepared for the Millennium Project Task Force 4 on Maternal and Child Mortality, 6 February 2004.

23. D. **Balk**, T. Pullum, A. Storeygard, F. Greenwell, M. Neuman, 2003. "A Spatial Analysis of Mortality in West Africa" GIS series 1, Demographic and Health Surveys, Calverton, MD: Macro International. (also presented at the Annual Meetings of the Population Association of America, Boston, April 2004, and the Association of American Geographers Meeting, Philadelphia, March 2004). Available at: <http://www.measuredhs.com/pubs/pdf/GS1/GS1.pdf>
24. S. Nghiem, D. **Balk**, C. Small et al. Nov. 2001, "Global Infrastructure: The Potential for SRTM to Break New Ground" White Paper produced from Workshop on, available at: <http://www.ciesin.columbia.edu/whitepaperfinal.pdf>.
25. U. Deichmann, D. **Balk** and G. Yetman, Oct. 2001. "Transforming Population Data for Interdisciplinary Usages: From Census to Grid," available at: <http://sedac.ciesin.columbia.edu/gpw-v2/GPWdocumentation.pdf>
26. D. **Balk**, 1997. "Changes come slowly for women in rural Bangladesh," *Asia-Pacific Population and Policy*, no. 41, April. PMID: 12346527
27. D. **Balk**, T. Brown, G. Cruz, and L. Domingo. 1997. "Are young people in the Philippines taking chances with AIDS?" *Asia-Pacific Population and Policy*, no. 40, January. PMID: 12292304
28. S. Lahiri, D. **Balk**, and K. B. Pathak. 1995. "Women in 13 States Have Little Knowledge of AIDS," *NFHS Bulletin*, No. 2. October. PMID: 12320427
29. D. **Balk**, K. K. Faiz, U. Rob, J. Chakraborty, and G. Simmons, 1988. An Analysis of the Costs and Cost-Effectiveness of the Family Planning Health Services Project in Matlab, Bangladesh (Dhaka: International Centre for Diarrhoeal Disease Research, Bangladesh). PMID: 1907039

Papers presented frequently at these annual or periodic meetings:

Population Association of America

International Union for the Scientific Study of Population Conference

American Geophysical Union

Association of American Geographers

Open Meeting of the Human Dimensions of Global Change Research Community

A full list of conference and workshop presentations and invited lectures is available upon request.

Training Materials

(Interview) "The Habitable Planet: A systems approach to Environmental Science" ([video](#)). A multimedia course for high school teachers and adult learners. Harvard/Smithsonian, 2007.

Contributor to Measuring Human Development: A Primer. Guidelines and Tools for Statistical Research, Analysis and Advocacy. New York: United Nations Development Program, 2007.

Wirth, M., E. Delamonica, E. Sacks, D. Balk, A. Storeygard, and A. Minujin, January 2006. Monitoring Health Equity in the MDGs: A Practical Guide. New York: CIESIN, Columbia University and UNICEF. Available [on-line](#) and accompanied by "Indicators for Policy Management and Advocacy," MDGs and Statistical Literacy, United Nations Development Programme, March 2006.

INFORMATION RESOURCES

On-line guides:

de Sherbinin, A., D. **Balk**, K. Yager, M. Jaiteh, F. Pozzi, C. Giri, and A. Wannebo. 2002. *Social Science Applications of Remote Sensing*, A CIESIN Thematic Guide (peer-reviewed), Palisades, NY: Center for

International Earth Science Information Network of Columbia University. Available on-line at http://sedac.ciesin.columbia.edu/tg/guide_main.jsp

O'Neill, B., D. Balk, M. Brickman, and M. Ezra. 2001. *A Guide to Global Population projections: A CIESIN Thematic Guide* (peer-reviewed) available at http://sedac.ciesin.columbia.edu/tg/guide_main.jsp

DATABASES

The following peer-reviewed databases are those to which I made fundamental contributions to the development and dissemination. Citation links provide details:

Data on Urban Classification and Structure in Metropolitan Areas in the United States, 1990–2010
Balk, D., Jones, B., Leyk, S., Engin, H. & Montgomery, M. (2019). Data available at [figshare](#).

India Census Grids Collection

Multiple data sets that accompany paper “Urbanization in India: Population and Urban Classification Grids for 2011” (citation above). Data available at: <http://www.ciesin.columbia.edu/data/india-census-grids/>

Low Elevation Coastal Zone (LECZ) Data Collection

Center for International Earth Science Information Network - CIESIN - Columbia University and CUNY Institute for Demographic Research (CIDR), City University of New York. 2020. Low Elevation Coastal Zone (LECZ) Urban-Rural Population and Land Area Estimates, Version 3 Preliminary Release. Palisades, NY: NASA Socioeconomic Data and Applications Center (SEDAC). Low Elevation Coastal Zone, Urban-Rural Population and Land Area Estimates (1990, 2000, 2015), Version 3 Preliminary Release, April 2020
https://drive.google.com/open?id=1eSjaj4DdYJc5QW5G2ZBHs_YMripsP_jl

Center for International Earth Science Information Network (CIESIN). 2007. Low Elevation Coastal Zone (LECZ) Urban-Rural Population Estimates, Alpha Version [dataset], CIESIN, Palisades, NY, USA: Data are publicly available at: <http://sedac.ciesin.columbia.edu/data/collection/lecz>

Global Rural Urban Mapping Project (GRUMP) Data Collection.

GRUMP Human Settlements

Center for International Earth Science Information Network (CIESIN), Columbia University; International Food Policy Research Institute (IPFRI), the World Bank; and Centro Internacional de Agricultura Tropical (CIAT), 2004. Global Rural-Urban Mapping Project (GRUMP): Settlement Points. Palisades, NY: CIESIN, Columbia University. Available at: <http://sedac.ciesin.columbia.edu/gpw>.

GRUMP Urban Extents

Center for International Earth Science Information Network (CIESIN), Columbia University; International Food Policy Research Institute (IPFRI), the World Bank; and Centro Internacional de Agricultura Tropical (CIAT), 2004. Global Rural-Urban Mapping Project (GRUMP): Urban Extents.

Palisades, NY: CIESIN, Columbia University. Available at:
<http://sedac.ciesin.columbia.edu/gpw>.

GRUMP 1km Population Grid

Center for International Earth Science Information Network (CIESIN), Columbia University; International Food Policy Research Institute (IPFRI), the World Bank; and Centro Internacional de Agricultura Tropical (CIAT), 2004. Global Rural-Urban Mapping Project (GRUMP): Gridded Population of the World, version 3, with Urban Reallocation (GPW-UR). Palisades, NY: CIESIN, Columbia University. Available at: <http://sedac.ciesin.columbia.edu/gpw> .

Gridded Population of the World (GPW) Data Collection.

Center for International Earth Science Information Network (CIESIN), Columbia University; and Centro Internacional de Agricultura Tropical (CIAT), 2004. *Gridded Population of the World (GPW), Version 3*. Palisades, NY: Columbia University. Available at <http://sedac.ciesin.columbia.edu/gpw>.

Poverty Mapping Data Collection.

Global Infant Mortality Database

Center for International Earth Science Information Network (CIESIN). 2005. Global subnational infant mortality rates [dataset]. CIESIN, Columbia University, Palisades, NY, USA. Data are publicly available at <http://ciesin.columbia.edu/povmap/>.

Global Child Underweight Database

Center for International Earth Science Information Network (CIESIN). 2005. Global subnational rates of child underweight status [dataset]. CIESIN, Palisades, NY, USA. Data are publicly available at <http://ciesin.columbia.edu/povmap/>.

Population, Landscape, and Climate Estimates (PLACE)

Center for International Earth Science Information Network (CIESIN), Columbia University, 2002. National Aggregates of Geospatial Data: Population, Landscape and Climate Estimates (PLACE), Palisades, NY: CIESIN, Columbia University. Available at:
<http://sedac.ciesin.columbia.edu/plue/nagd/place>

FUNDING ACQUIRED

(PI unless otherwise noted, **bold** indicates external funding source)

26. **Columbia University/Gates Foundation Subcontract**, *Support of the GRID Mapping Portfolio* (~\$120,000), 5/2019-6/2020.
25. **World Resources Institute (WRI)** *Coalition for Urban Transitions (CUT) A New Climate Economy Special Initiative* (\$61,800), 8/2019-2/2020
24. **European Commission (EC)**, *Projecting global population grids to 2100* (PI: Jones, co-PI Balk), 9/2018-3/2020 (€125,000). [Award accepted as consultants rather than institutionally.]
23. **National Aeronautics and Space Administration (NASA)**, *Ecological and sociodemographic determinants and impacts of urbanization and restoration on intertwined urban-wetland-estuarine systems*. 7/2017-6/2020 (CIDR subcontract: \$223,000).
22. **AXA Research Fund**. *Estimating City Growth, Urbanization and Climate-related Risks in the 21st century*, 1/2015-12/2016 (€125,000).
21. **National Science Foundation (NSF)** Interdisciplinary Behavioral and Social Science (IBSS) Research Program, *Multi-Scale processes determining spatial population Distribution*, 9/2014-3/2018 (\$1,000,000).
20. **National Aeronautics and Space Administration (NASA)-Jet Propulsion Laboratory**, *Mega Urban Changes and Impacts in the Decade of the 2000s*. (PI: Ngheim, co-PI: Balk) 9/2012–8/2015 (Total: \$1,059,900; CUNY Subcontract: \$225,000).
19. **NASA**, *Global-scale assessment of threatened river delta systems: Evaluation of connections between the continental land mass and ocean through integrated remote sensing and process modeling*. (PI: Vorosmarty, co-PI: Balk) 1/2012–12/2014 (Total: \$1,495,000; CIDR Scope: \$25,000).
18. PSC-CUNY Research Award. *Internal Migration in Africa Asia and Latin America*, 7/12-6/13 (\$3,500).
17. **Bill and Melinda Gates Foundation**. *Urbanization and Migration in Africa*. 10/10–4/11 (\$55,033).
16. **United Nations Fund for Population Activities**. *Census Data and Climate Change*. 6/10–12/10 (\$30,000).
15. **National Institutes of Child Health and Development**, ARRA Administrative Supplement, R21 HD054846, *Revitalizing Urban Population Projections: New Data, New Methods*, 9/09 – 3/31/10 (\$29,927).
14. **National Institutes of Child Health and Development**, R21 HD054846, *Revitalizing Urban Population Projections: New Data, New Methods*, 4/16/07 – 3/31/10 (\$475,000).
13. **International Institute for Environment and Development**, *Urbanization Concept Notes* 6/1/08-6/30/09 (\$15,000).
12. PSC-CUNY Research Award, *Retrofitting Demographic and Health Survey Data: A Pilot Study to Determine Geographic Locations of Survey Clusters*, 7/07 – 12/08 (\$4,500).
11. **United Nations Habitat**, 74628-00, *State of the World's Cities: Urbanization and Ecosystems* 6/1/07 – 6/30/08 (\$20,182).
10. **NASA-Jet Propulsion Laboratory**, 74559-00, *Advanced Synthetic Aperture Scatterometer (SAS) Concept and Dense Sampling Method (DSM) for Global Land Use Change in Urban and Suburban Environments*, 9/1/06 – 2/29/08 (\$80,000).
9. **National Science Foundation**, SBE-0525216/SBE-0525130, (Collaborative Proposal), *Socio-economic and Environmental Drivers of Emerging Infectious Diseases*, 12/1/05 – 12/31/06 (\$150,000).

8. **International Union for the Scientific Study of Population** 74572-00, *Workshop & Write-up on Advancing New Methods to Revise Urban Population Projections*, Co-sponsored by the International Union for the Scientific Study of Population and the United Nations Population Division. 3/05 – 12/08 (\$11,500).
7. **United Nations Millennium Project Task Force of Child and Maternal Mortality**, *Setting the Stage for Equity-Sensitive MDG Monitoring*, 6/04 – 6/05 (c. \$20,000).
6. **United Nations Food and Agriculture Organization**, *Gridded Global Population Density, Projected to 2015*, 1/04 – 10/04 (\$11,586).
5. **United Nations Millennium Project**, *An Assessment of Hunger Hotspots in Africa*, (co-PI with M. Levy), Task Force on Hunger, 3/04 – 8/04 (c. \$50,000).
4. **Macro International (Demographic and Health Survey Program)**, *Spatial Analysis of Child Mortality in Sub-Saharan West Africa*, 3/03 – 3/04 (\$46,679).
3. **World Conservation Monitoring Centre, 1/03–12/03; and International Food Policy Research Institute**, *Development of Spatial Databases of Human Settlements and of Urban and Rural Population Distribution for the Developing World*, 1/01–12/02 (\$125,000).
2. International Research Institute for Climate Prediction, *Methodology for applying IRI climate forecast for local public health interventions: A pilot study of climate-health-population mobility interactions in Mali*, 2/01-12/02, co-PI with Sally Findley (PI) (\$6,000).
1. SMART Fund Award, *Human Dimension of Climate and Land Cover Change in Kenya*, Columbia University Earth Institute 12/00 – 6/02 (c. \$7,500).

Consultancies (partial)

Asian Development Bank, 2011-2012. *Urbanization in Asia, Climate Adaptation in Asia*, Contributor to Key Indicators Report.

United Nations Fund for Population Activities (UNFPA), Beijing, China, 2009. *Urbanization and Climate Change in China*.

NICHD-funded R01, “Health, Poverty and Place in Accra, Ghana” (J. Weeks, PI), 2007-2012.

TEACHING

Courses Taught

At CUNY

Map Making for Policy (PAF 9186), School of Public Affairs, Baruch College, CUNY**

Population Dynamics and Climate Change (DCP80300), Demography Certificate Program, Graduate Center, CUNY*

Research and Analysis II (PAF 9172), School of Public Affairs, Baruch College, CUNY**

Spatial Demography (DCP 80300), Demography Certificate Program, Graduate Center, CUNY*

* Doctoral level, ** Masters' level

Elsewhere

Urbanization, Migration and Climate Change: Evidence and Policy (Graduate Seminar), Spring 2016, Woodrow Wilson School, Princeton University

Population and Development (Graduate Seminar). Winter 2000. Department of Sociology, Columbia University

Women's Status and Demography: In Theory and In Practice (Graduate seminar), Winter 1993.

Departments of Sociology and Population Planning and International Health/School of Public Health, University of Michigan.

Introduction to Peace Studies. (Undergraduate survey course, team taught with faculty), Winter 1985.

College of Literature, Science and the Arts, University of Michigan.

Periodic guest lecturing in geography, demography, public health, public policy courses, 1998–2006.

Doctoral Student Advising

Liu, Yijiao (outside reader), Stony Brook University, SUNY, Department of Economics, 2019

Mills, Caroline (committee member), CUNY School of Public Health, graduated 2019

Stokes, Eleanor (Kellie) (outside reader), Yale University School of Forestry and Environmental Science, graduated 2018

Cheruvillil, Mary (Sonia) (committee member), CUNY School of Public Health

Dev, Alka (chair), CUNY School of Public Health, graduated 2016

Dunn, Gillian (chair), CUNY School of Public Health, graduated 2016

Rasch, Rebecca (committee member), CUNY Graduate Center Sociology Program, graduated 2015

Abiero, Beatrice (outside reader), Pennsylvania State University, 2013-2014

Corker, Jamaica (advisor on chapter 3), University of Pennsylvania, graduated 2014

Dorelien, Audrey (outside reader), Princeton University Woodrow Wilson School, graduated 2012

Medina, Daniel (outside reader), Columbia University School of Public Health, graduated 2009

Post-Doctoral Advising

Zoraghein, Hamidreza. Population Council-CUNY Post doctoral Fellow, 2019-2020

Jones, Bryan, NSF SEES Fellow, CUNY Institute for Demographic Research 2013-2016

Doll, Christopher, Columbia Earth Institute Post-doctoral Fellow, 2004-2006

SERVICE

To the University

Baruch College, Taskforce on Faculty Workload & Research Reassigned Time, 2018–2019.

CUNY School of Public Health, Executive Committee, Summer 2014–2016.

CUNY School of Public Health, Epidemiology Program, First Exam Committee, Spring 2014–2015.

Baruch College, CUNY, School of Public Affairs, Promotions & Budget Committee, Fall 2008–Summer 2011, Fall 2013-Summer 2014, Fall 2015-present (chair, 2015-16, 2019-20).

Baruch College, CUNY, College Joint Committee for Research, Fall 2012–Spring 2014 (chair).

Baruch College, CUNY, School of Public Affairs, Executive Committee, Fall 2011–Summer 2014.

Baruch College, CUNY, Independent Units Promotions & Budget Committee, Fall 2011–2013.

CUNY School of Public Health at Hunter College, Multiple tenure-track faculty lines in Epidemiology (open rank), 2009–2010.

Baruch College, CUNY, School of Public Affairs, Ad-hoc service to the Curriculum Committee, Coordinator (with Dahlia Remler), Quantitative Skills Workshop, 2007–2008.

CUNY Institute for Demographic Research, Various Faculty Searches (Director Search Committee, 2006–07; Baruch College, Economic Demography Search 2007–08; Hunter College, Sociology Search,

2007–08); Chair of Search Committees for Director of Administration and Operations (2013, 2014); Director of Computing (2007–08).

Baruch College, CUNY, MSPIA/SPA, Faculty Searches in Marx Chair in International Affairs (Chair), 2018-19; Urban Sustainability & Environmental Policy (Chair) 2016-17; Research Methods and Community Development Lecture-line, 2016-17; Food Policy, (Chair) 2013-2014; Higher Education Administration (Chair) 2009-2010; Associate Dean Search Committee, 2007–2008

Baruch College, CUNY, School of Public Affairs, Curriculum Committee, Fall 2007–present (Chair, 2008 – 2009).

Baruch College, CUNY, Facilities Committee, Fall 2006–2010.

Columbia University, Earth Institute, CIESIN Director Search Committee, June-December 2006.

Columbia University, Institute for Social and Economic Research and Policy (ISERP), Robert Wood Johnson Health & Society Scholars Post-doc recruitment, 2004.

Columbia University, Provost’s Salary Equity Committee, 2003–2006.

Columbia University, Lamont Doherty Earth Observatory, Non-Doherty Appointments and Promotions guidelines working group to the Promotions & Careers Committee, 2000–2004.

To the Profession

Member, Leadership Team, New York City Panel on Climate Change, December 2019-present.

Member, Committee on Population, National Academy of Sciences, Sept 2019-present.

Member, Census Scientific Advisory Committee, United States Census Bureau, Sept 2019-present.

Member, External Advisory Group, World Pop Project, University of Southampton, UK, 2017-present.

Member, Steering Committee, The Group of Earth Observations (GEO) Human Planet Initiative. 2016-present.

Member, User Working Group, Socioeconomic Data and Applications Center (A NASA Distributed Active Archive Center), CIESIN, Columbia University, 2015-2018.

Scientific Steering Committee, Scenarios and Interpretive Science Working Group of the U.S. Global Change Research Program (USGCRP), Feb–Aug 2014.

National Research Council, Member, Member, Panel on Himalayan Glaciers, Climate Change, and Implications for Downstream Populations, Board on Atmospheric Sciences and Climate, and Committees on Population, July 2011–2013. Resulting publication: *Himalayan Glaciers: Climate Change, Water Resources, and Water Security*, Washington, DC: National Academy Press, 2012.

International Union for the Scientific Study of Population, Member, Panel on Urbanization, 2004-2008.

National Research Council, Member, Panel on Confidentiality Issues Arising from the Integration of Remotely Sensed Data with Social Science Survey, Committee on the Human Dimensions of Global Change, January 2005–December 2006. Resulting publication: *Putting People on the Map: Protecting Confidentiality with Linked Social-Spatial Data*, Washington, DC: National Academy Press, 2007.

National Research Council, Member, Committee on the Effective Use of Data, Methodologies and Technologies to Estimate Sub-national Populations at Risk, *ad hoc* committee of the Geographic Sciences Committee, November 2005-September 2006. Resulting publication: *Tools and Methods for Estimating Populations at Risk from Natural Disasters and Complex Humanitarian Crises*, Washington, DC: National Academy Press, 2007.

Organizing committee, Bi-annual Meeting URS (Urban Remote Census)/Urban2007 of the ISPRS, 2006–2007.

Measure Demographic and Health Survey GIS Working Group, Macro International, 2000–2005.

Organizing Committee, Annual Meetings of Population Association of America, 1997.

Reviews and Editorial Service

Editorial Boards

Guest Editor (with Kathryn Grace), *Population and Environment*, forthcoming issue, 2019
Guest Editor (with Daniele Ehrlich and Richard Sliuzas), *International Journal of Digital Earth*, 2018/2019
Editorial Board, *Demography*, 2016–2019
Guest Editor (with Mark Montgomery), *Spatial Demography*, 2015
Editorial Board, *Spatial Demography*, 2012–2016.

Book Reviews

Women's Empowerment and Demographic Processes: Moving Beyond Cairo, Harriet Presser and Gita Sen, eds., in *Studies in Family Planning*, September 2001, 32 (3).
Fertility Transitions, Family Structure, and Population Policy. Calvin Goldscheider, ed. in *Contemporary Sociology*, March 1993, 22, (2): 219–220.

Invited Panel Reviews

Israeli Science Foundation, Centers of Excellence Reviews, 2018
National Institutes of Health, Reviewer, Special Emphasis Panel, July 2009, May 2013.
Swedish Research Council, External Reviewer for Linnaeus Grants, 2008.
National Science Foundation, periodic reviewer, various programs.
National Aeronautics and Space Administration, Applied Sciences Program, Panel Reviewer for Decision 05 CAN study proposals, 2005.
National Research Council, Paper review for the Panel on New Research in Population and the Environment, 2004.
Journal peer-review for *Proceedings of the National Academy of Sciences (PNAS)*; *Population Studies*; *Population and Development Review*; *Demography*; *Demographic Research*; *Mathematical Population Studies*; *Population and Environment*; *Population, Space and Place*; *Studies in Family Planning*; *International Family Planning Perspectives*; *American Journal of Tropical Medicine and Hygiene*; *Ambio*; *Remote Sensing and Environment*; and *Public Opinion Quarterly*; *Environmental Research Letters*; *PlosOne*; *Global and Planetary Change*; (among many others).

Workshop Organization

The National Socio-Environmental Synthesis Center, (in revision) “Exploring the long-term effects of the demographic transition on tropical biodiversity,” Co-organizer (w/Eric Sanderson)
US Global Change Research Program (USGCRP), “Workshop on Scenarios of U.S. Demographic Change”, 23-24 June 2014, Rockville, MD, Steering Committee Member/Co-organizer
The National Socio-Environmental Synthesis Center (SESYNC), “Where do Cities get their Water? Towards a City Water Map” September 2012, and October 2013, Co-organizer (w/Rob McDonald)
Small group meeting on Spatial Human Population Distribution Modeling for Epidemiological Applications, May 2011, Co-organizer (w/Andrew Tatem)
New York Research Data Center Census Data Workshop, Spring 2008, member, organizing committee
Rethinking the Estimation and Projection of Urban and City Populations, January 2006, co-organizer
Global Spatial Data and Information User Workshop, September 2004, co-organizer
Confidentiality and Geospatial Data Workshop, for NASA's Public Health Applications Program, June 2003, co-organizer
Global Poverty Mapping, March 2003, co-organizer
Global Infrastructure, October 2000, Lead organizer

Gridded Population, May 2000, Lead organizer

ODDS & ENDS

Memberships

International Union for the Scientific Study of Population (long-term)

Population Association of America (long-term)

American Geophysical Union (occasional)

American Sociological Association (occasional)

American Public Health Association (occasional)

Association of American Geographers (occasional)

Social Science History Association (occasional)

Academic Honors and Scholarships

William and Flora Hewlett Foundation Fellow 1989–1991

Accelerated Master's Degree in Public Policy 1983–1985

Honor's Program, College of LS&A, University of Michigan 1980–1983