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Social and Behavioral Science Research (SBSR)

2003

Completing the fertility transition in the developing world: The role of educational differences and fertility preferences [Arabic]

John Bongaarts
Population Council

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John Bongaarts

Paul Hewti

John Casterline

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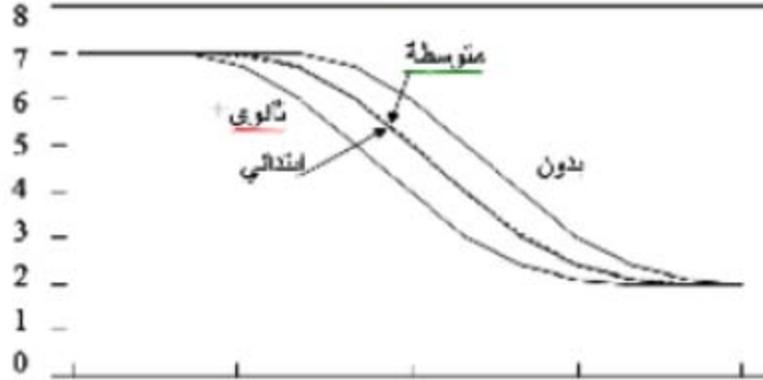
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شكل ١- نماذج لأنماط تحول الخصوبة حسب مستوى التعليم

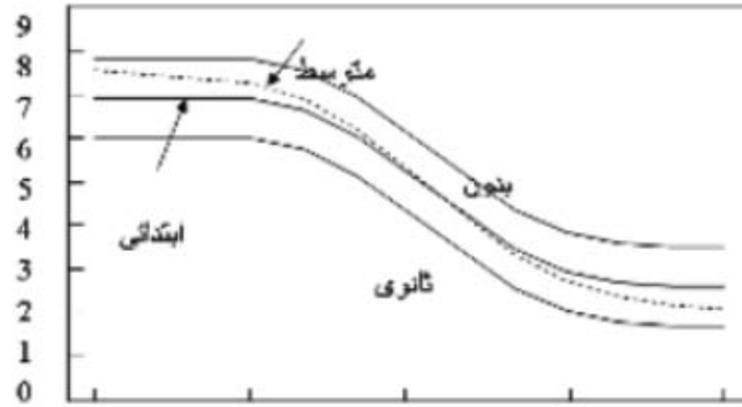
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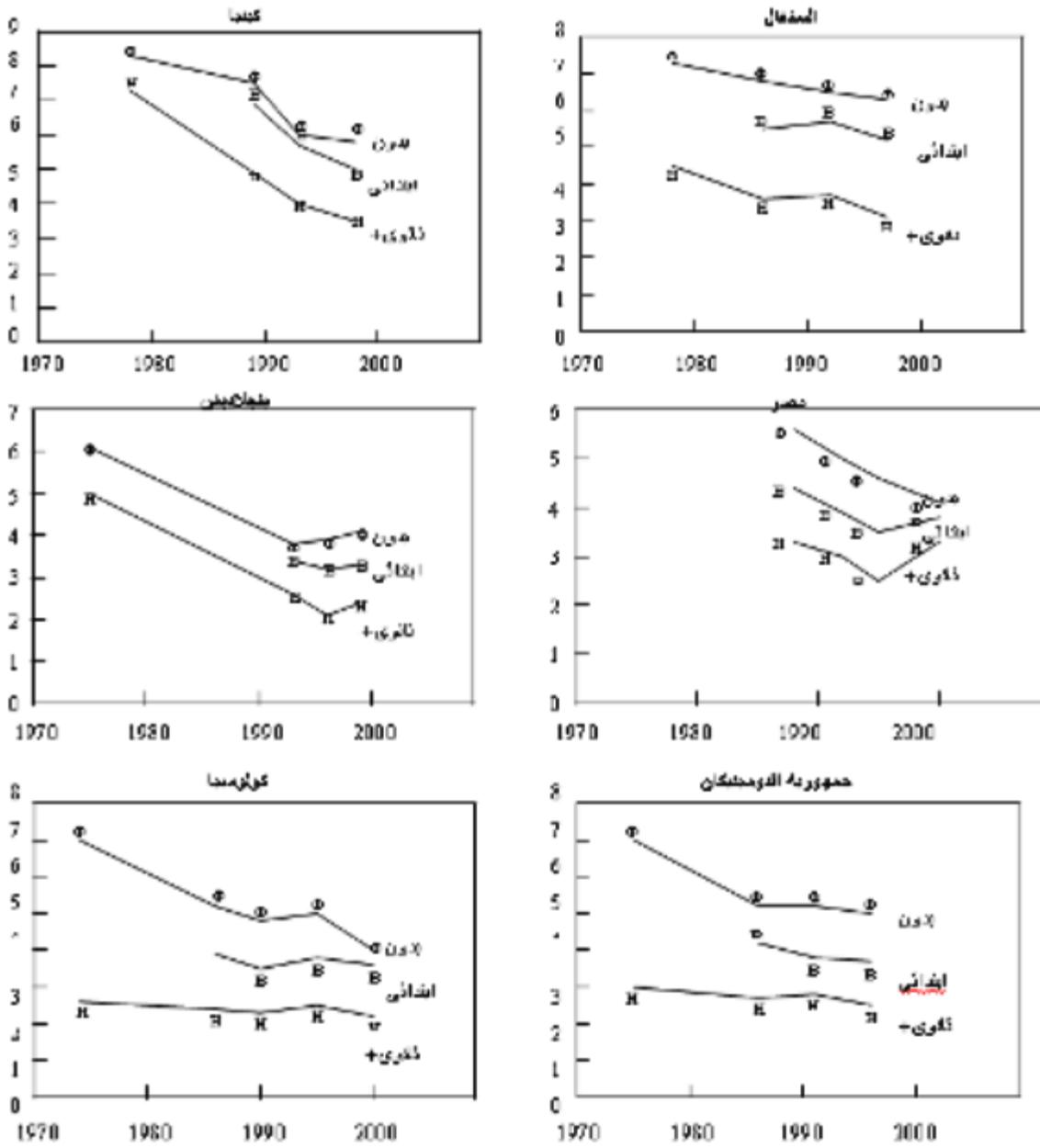
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شكل ٢- نزعات الخصوبة الإجمالية حسب مستوى التعليم
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المصدر: ملفات انسوجات انسكانية والصحية

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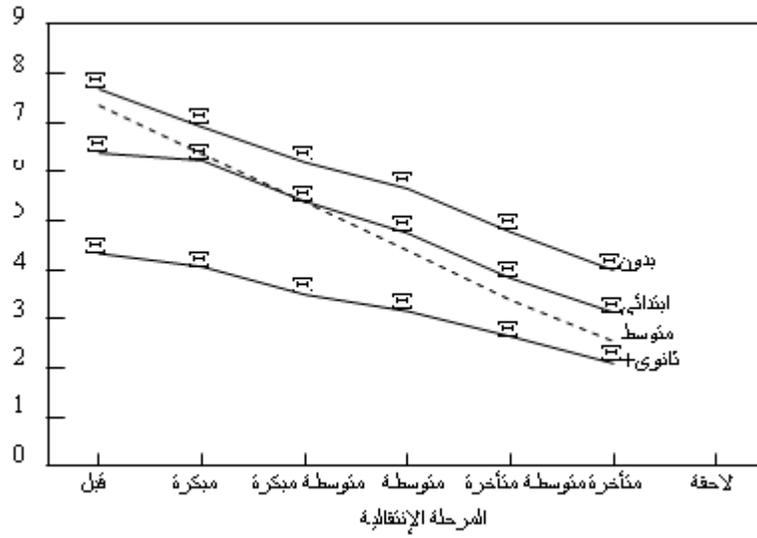
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شكل ٣- معدل الخصوبة الإجمالية طبقاً لمستوى التعليم : المتوسط في ٥٧ بدأ في مراحل مختلفة من التحول



المصدر: ملفات المسوحات السكانية والصحية

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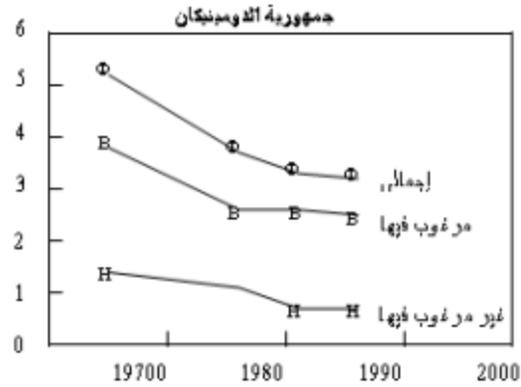
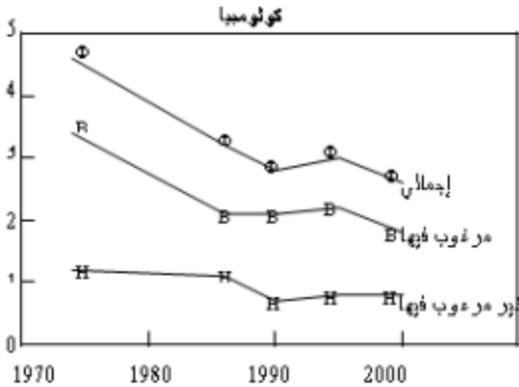
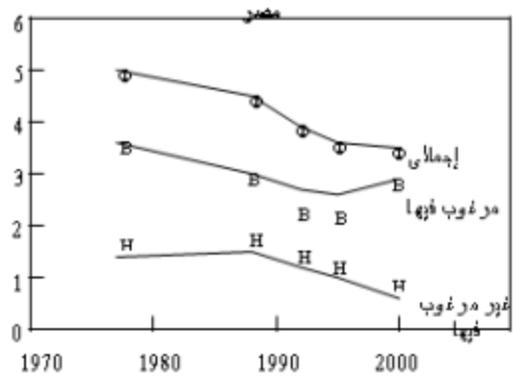
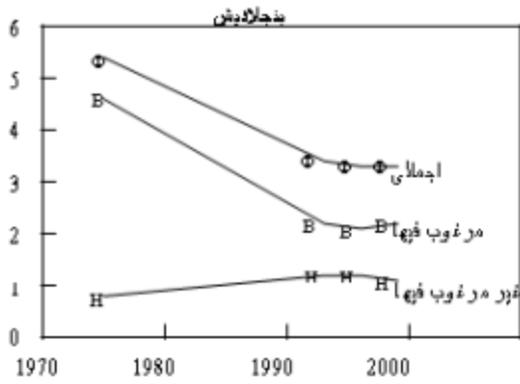
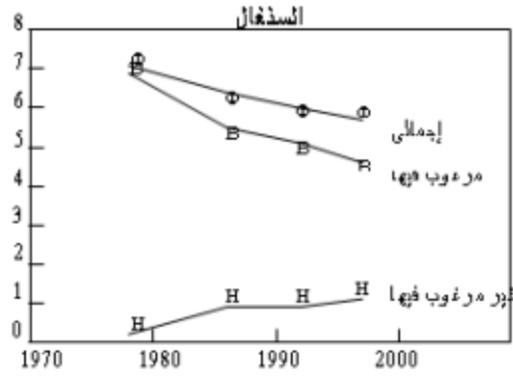
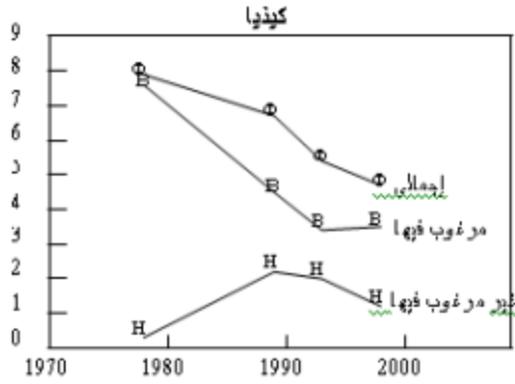
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شكل رقم (٤) نزعات معدل الخصوبة الإجمالية ومكونيها المرغوب فيه وغير المرغوب فيه



المصدر: مذقات المسوحات السكانية والصحية

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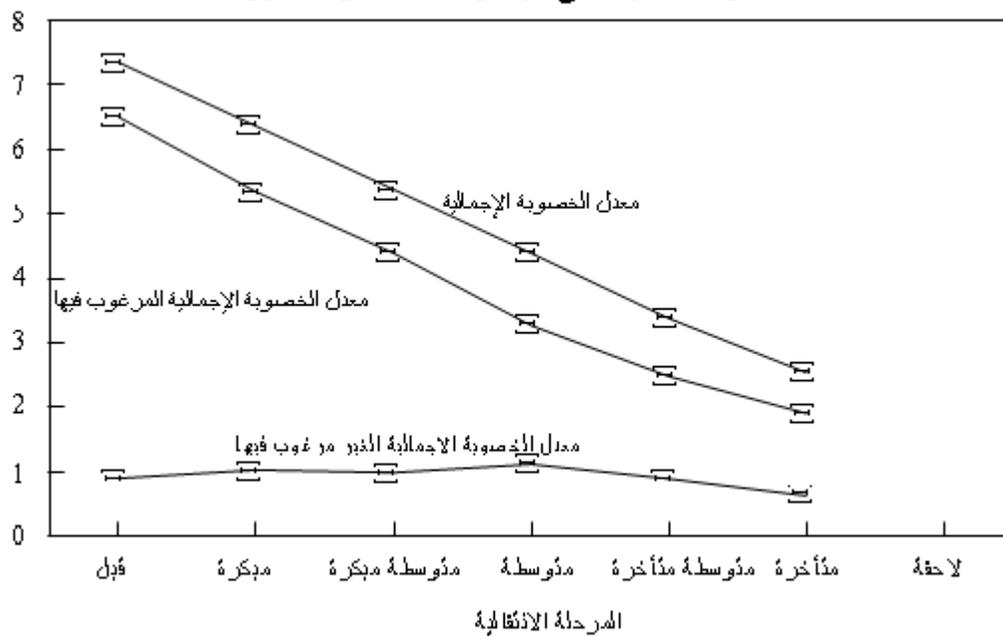
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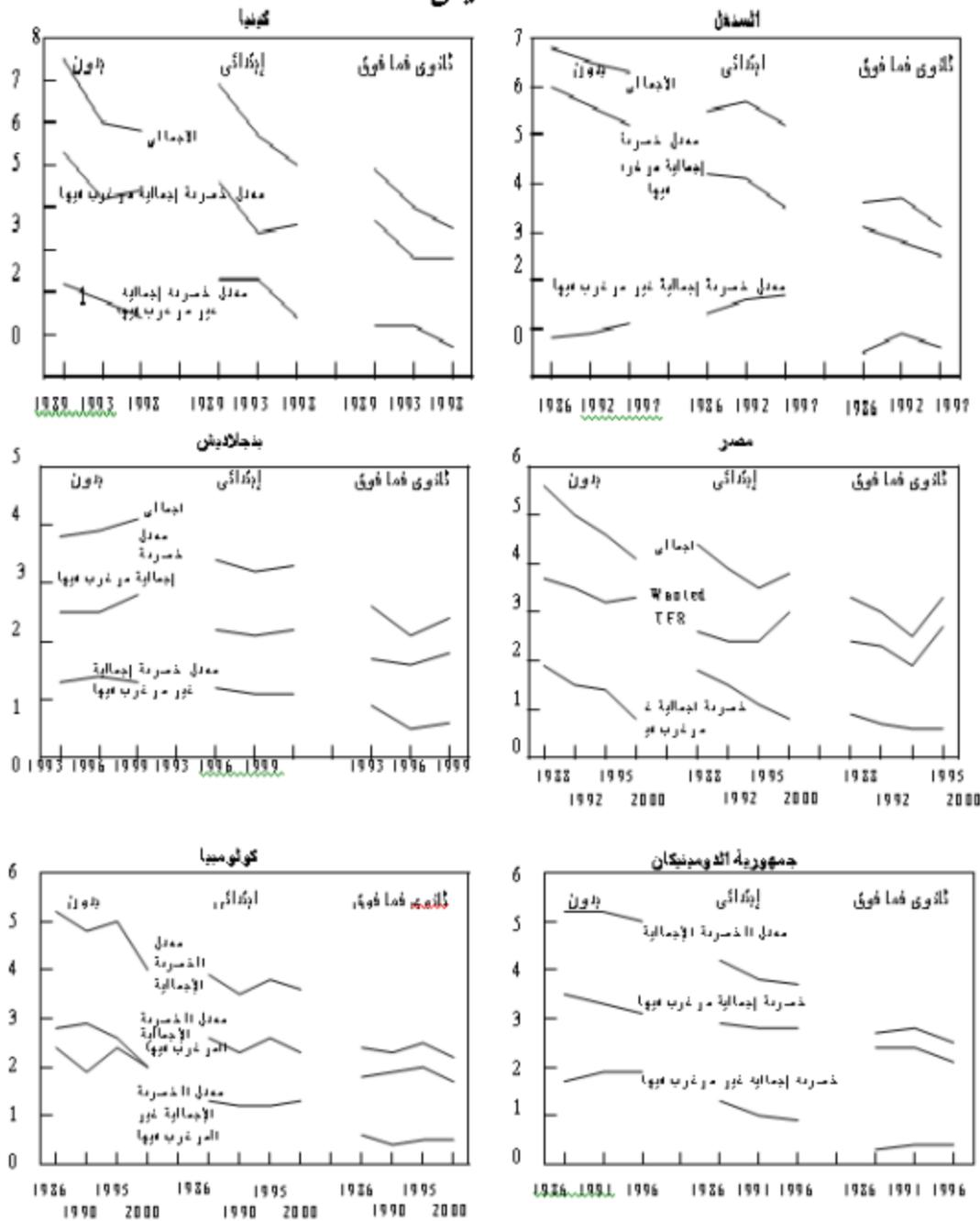
شكل رقم (٥) معدل الخصوبة الإجمالي وعنصريه المرغوب فيه وغير المرغوب فيه : متوسطات من ٥٧ دولة في مراحل مختلفة من التحول



المصدر: ملفات المسوحات السكانية والصحية

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شكل ٦ : نزعات معدل الخصوبة الإجمالية والخصوبة المرغوبة فيها حسب المستوى التنموي



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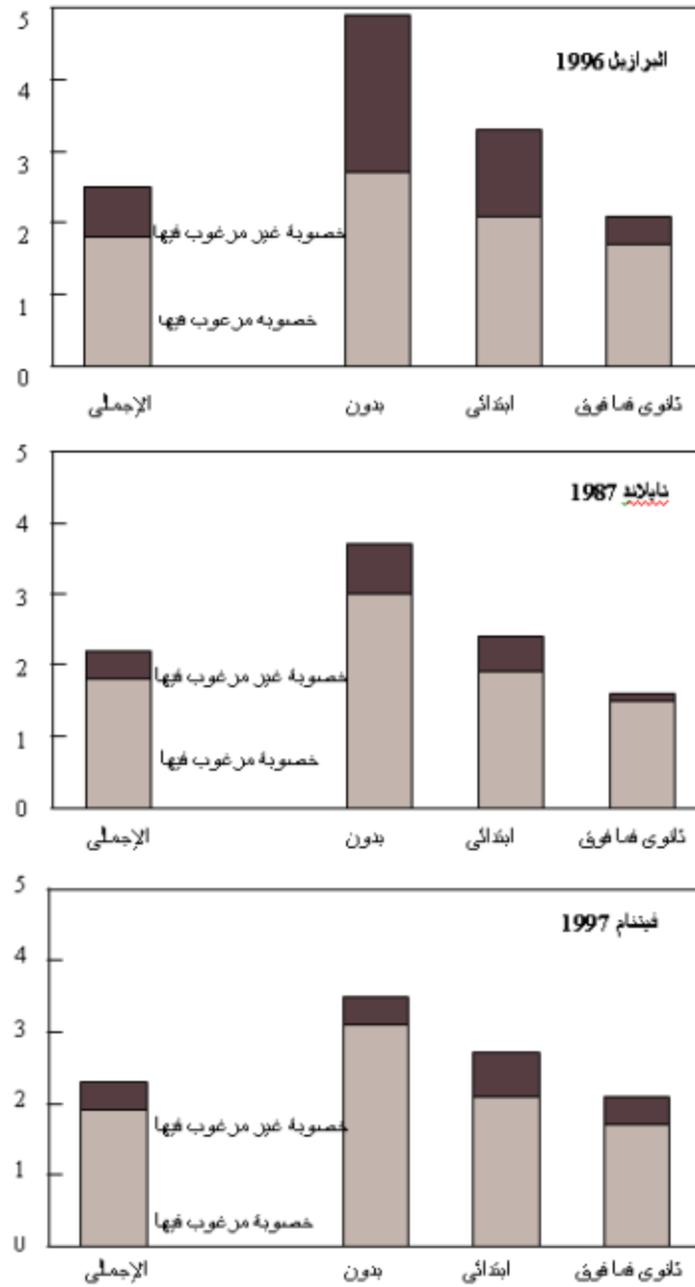
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شكل ٨ : معدل الخصوبة الإجمالية ومكوناتها المرغوب فيه وغير المرغوب فيه حسب مستوى التعليم في البرازيل وتايلاند وفيتنام



المصدر: ملفات المسوحات السكانية والصحية

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19	6,36	1,03	5,34	4,06	0,65	3,41	6,23	1,16	5,07	6,91	1,04	5,86	
16	5,38	0,99	4,39	3,49	0,64	2,82	5,39	1,15	4,42	6,19	1,01	5,19	
21	4,39	1,12	3,27	3,15	0,63	2,51	4,47	1,30	3,44	5,65	1,49	4,16	

12	3,38	0,89	2,48	2,64	0,50	2,14	3,83	1,14	2,69	4,77	1,54	3,23	
7	2,45	0,63	1,91	2,09	0,37	1,71	3,13	0,93	2,20	3,99	1,33	2,66	
													TFR
4	0,26	0,66	0,42	1,10	0,28	0,97	0,89	0,55	1,23	0,40	0,65	0,40	
19	0,57	0,57	0,54	0,75	0,35	0,66	0,71	0,50	0,82	0,36	0,60	0,47	
16	0,26	0,55	0,65	0,72	0,35	0,57	0,55	0,71	0,71	0,56	0,68	0,68	
21	0,30	0,46	0,64	0,57	0,24	0,54	0,78	0,60	0,81	0,67	0,89	0,82	
12	0,26	0,24	0,28	0,37	0,17	0,32	0,63	0,46	0,33	1,08	0,87	0,44	
7	0,23	0,24	0,22	0,32	0,17	0,23	0,59	0,51	0,22	0,82	0,81	0,41	
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4	7,7	1,7	7,0	5,6	1,0	4,6	7,2	1,5	6,4	8,1	1,7	7,3	
19	6,9	2,2	6,1	5,8	1,4	4,6	7,3	2,3	6,6	7,8	2,2	4,6	
16	5,8	2,3	5,2	5,1	1,5	3,7	6,4	2,9	5,4	7,2	3,0	6,1	
21	4,9	1,9	4,4	4,2	1,3	3,6	5,7	2,6	4,8	7,1	3,3	5,9	
12	3,8	1,3	3,0	3,3	0,7	2,7	5,0	2,2	3,3	6,9	3,0	4,0	
7	2,8	1,0	2,4	2,6	0,6	2,2	4,1	1,8	2,6	5,1	2,2	3,1	
													TFR
4	7,1	0,2	6,0	3,1	0,4	2,5	5,2	0,3	3,7	7,2	0,2	6,4	
19	6,0	0,2	4,2	2,8	0,2	2,3	4,8	0,4	3,7	6,4	0,2	4,8	
16	5,0	0,4	2,7	2,3	0,2	1,9	4,6	0,4	3,1	5,1	0,3	3,4	
21	4,0	0,3	2,3	2,0	0,3	1,6	2,4	0,3	1,7	4,6	0,2	2,9	
12	3,0	0,5	2,2	2,0	0,2	1,8	3,0	0,6	2,2	3,3	0,5	2,6	
7	2,2	0,4	1,8	1,6	0,1	1,5	2,4	0,5	1,9	2,7	0,4	2,0	
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REFERENCES

- Bankole, Akinrinola and Charles F. Westoff. 1995. "Childbearing attitudes and intentions," *Demographic and Health Surveys, Comparative Studies No. 17*. Calverton, MD: Macro International.
- Bongaarts, John. 1997. "Trends in unwanted childbearing in the developing world," *Studies in Family Planning* 28(4): 267-277.
- . 2002. "The end of the fertility transition in the developing world," in *Proceedings of Expert Group Meeting on Completing the Fertility Transition, Population Division, United Nations* (also forthcoming in *UN Population Bulletin*).
- Bongaarts, John and Susan Cotts Watkins. 1996. "Social interactions and contemporary fertility transitions," *Population and Development Review* 22(4): 639-682.

- Caldwell, John C. 1982. *Theory of Fertility Decline*. London: Academic Press.
- Casterline, John B. 2001. "Diffusion processes and fertility transition: Introduction," in John B. Casterline (ed.), *Diffusion Processes and Fertility Transition: Selected Perspectives*. Washington, DC: National Research Council, National Academy Press, pp. 1–38.
- Cleland, John. 2001. "Potatoes and pills: An overview of innovation-diffusion contributions to explanations of fertility decline," in John B. Casterline (ed.), *Diffusion Processes and Fertility Transition: Selected Perspectives*. Washington, DC: National Research Council, National Academy Press, pp. 39–65.
- . 2002. "Education and future fertility trends, with special reference to mid-transitional countries," in *Proceedings of Expert Group Meeting on Completing the Fertility Transition, Population Division, United Nations* (also forthcoming in *UN Population Bulletin*).
- Cleland, John and Christopher Wilson. 1987. "Demand theories of the fertility transition: An iconoclastic view," *Population Studies* 41(1): 5–30.
- Cleland, John and Germán Rodríguez. 1988. "The effect of parental education on marital fertility in developing countries," *Population Studies* 42(3): 419–442.

26

- Cochrane, Susan Hill. 1979. *Fertility and Education: What Do We Really Know?* Baltimore, MD: Johns Hopkins University Press.
- Freedman, Ronald, Ming-Cheng Chang, and Te-Hsiung Sun. 1994. "Taiwan's transition from high fertility to below-replacement levels," *Studies in Family Planning* 25(6): 317–331.
- Goodkind, Daniel M. 1995. "Vietnam's one-or-two-child policy in action," *Population and Development Review* 21(1): 85–111.
- Jejeebhoy, Shireen J. 1995. *Women's Education, Autonomy and Reproductive Behaviour: Experience from Developing Countries*. Oxford: Clarendon Press.
- Jeffery Roger and Alaka M. Basu (eds.). 1996. *Girls' Schooling, Women's Autonomy and Fertility Change in South Asia*. New Delhi: Sage Publications.
- Knodel, John and Etienne van de Walle. 1979. "Lessons from the past: Policy implications of historical fertility studies," *Population and Development Review* 5(2): 217–245.
- Kohler, Hans-Peter. 2001. *Fertility and Social Interaction: An Economic Perspective*. New York: Oxford University Press.
- Lutz, Wolfgang and Anne Goujon. 2001. "The world's changing human capital stock: Multi-state population projections by educational attainment," *Population and Development Review* 27(2): 323–339.
- Mathews, T.J. and Stephanie Ventura. 1997. "Birth and fertility rates by educational attainment: United States, 1994," *Monthly Vital Statistics Report* 45 (10, Suppl.): 1–20. Hyattsville, MD: National Center for Health Statistics.
- Merrick, Thomas. 2001. "Population and poverty: A review of reviews," in Nancy Birdsall, Allen C. Kelley, and Steven Sinding (eds.), *Population Matters: Demographic Change, Economic Growth, and Poverty in the Developing World*. New York: Oxford University Press, pp. 201–212.

27

- Montgomery, Mark R. and John B. Casterline. 1996. "Social learning, social influence, and new models of fertility," in John B. Casterline, Ronald D. Lee, and Karen A. Foote (eds.), *Fertility in the United States: New Patterns, New Theories, Population and Development Review*, Supplement to Vol. 22. New York: Population Council, pp. 151–175.
- National Research Council. 1999. *Critical Perspectives on Schooling and Fertility in the Developing World*, Caroline H. Bledsoe, John B. Casterline, Jennifer A. Johnson-Kuhn, and John G. Haaga (eds.). Washington, DC: National Academy

Press.

———. 2001. *Diffusion Processes and Fertility Transition: Selected Perspectives*, John B. Casterline (ed). Washington, DC: National Academy Press.

Rutstein, Shea. Forthcoming. “Fertility levels, trends and differentials: 1995–1999,” *Demographic and Health Survey Comparative Reports No. 3*. Calverton, MD: Macro International, Inc.

Sen, Amartya. 1999. *Development as Freedom*. New York: Knopf.

United Nations. 1987. “Fertility behavior in the context of development: Evidence from the World Fertility Surveys,” *Population Studies no. 100*. New York: United Nations.

———. 1995. *Women’s Education and Fertility Behavior: Recent Evidence from the Demographic and Health Surveys*. New York: United Nations.

———. 2001. *World Population Prospects: The 2000 Revision*. New York: United Nations.

Watkins, Susan Cotts. 1986. “Conclusions,” in *The Decline of Fertility in Europe*, Ansley J. Coale and Susan Cotts Watkins (eds.). Princeton: Princeton University Press, pp. 420–449.

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