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**ONLINE METHODOLOGICAL SUPPLEMENT
to article in**

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The Rise of the Nation-State across the World, 1816 to 2001

Andreas Wimmer and Yuval Feinstein
University of California, Los Angeles

Table S1. Years of Nation-State Creation (NSC)

Territory	1 st NSC	2 nd NSC	3 rd NSC
Afghanistan	1964		
Algeria	1963		
Angola	1975		
Argentina	1824		
Armenia	1918	1991	
Australia	1948		
Austria	1918		
Azerbaijan	1917	1991	
Bahrain	.		
Bangladesh	1972		
Belarus	1991		
Belgium	1831		
Benin	1960		
Bhutan	1998		
Bolivia	1825		
Bosnia and Herzegovina	1921	1992	
Botswana	1966		
Brazil	1889		
Bulgaria	1879		
Burkina Faso	1960		
Burundi	1962		
Cambodia	1953		
Cameroon	1960		
Canada	1867		
Central African Republic	1960		
Chad	1960		
Chile	1828		
China	1911		
Colombia	1821	1831	
Congo, Dem. Republic	1960		
Congo, Rep.	1960		
Costa Rica	1823	1839	
Croatia	1921	1991	
Cuba	1902		
Cyprus	1960		
Czech Republic	1918	1993	
Denmark	1849		
Dominican Republic	1844		
Ecuador	1821	1830	
Egypt	1923		
El Salvador	1823	1841	
Eritrea	1993		
Estonia	1918	1991	
Ethiopia	1974		
Finland	1917		
Gabon	1960		

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Gambia	1965	
Georgia	1918	1991
Germany	1871	
Ghana	1957	
Greece	1844	
Guatemala	1823	1839
Guinea	1958	
Guinea-Bissau	1974	
Guyana	1970	
Honduras	1823	1839
Hungary	1918	
India	1947	
Indonesia	1950	
Iran	1906	
Iraq	1932	
Ireland	1931	
Israel	1948	
Italy	1861	
Ivory Coast	1960	
Japan	1868	
Jordan	1946	
Kazakhstan	1991	
Kenya	1963	
Kuwait	.	
Kyrgyzstan	1991	
Laos	1954	
Latvia	1918	1991
Lesotho	1966	
Liberia	1944	
Libya	.	
Lithuania	1918	1991
Macedonia	1921	1991
Madagascar	1960	
Malawi	1964	
Malaysia	1957	
Mali	1960	
Mauritania	1960	
Mauritius	1968	
Mexico	1824	
Moldova	1991	
Mongolia	1924	
Morocco	1996	
Mozambique	1975	
Myanmar	1948	
Nepal	1990	
Netherlands	1848	
New Zealand	1907	
Nicaragua	1823	1839
Niger	1960	
Nigeria	1960	

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North Korea	1948		
Norway	1905		
Oman	.		
Pakistan	1947		
Panama	1821	1831	1903
Papua New Guinea	1975		
Peru	1824		
Philippines	1946		
Poland	1921		
Portugal	1822		
Qatar	1971		
Romania	1878		
Russia	1905		
Rwanda	1962		
Saudi Arabia	.		
Senegal	1960		
Sierra Leone	1961		
Slovakia	1918	1993	
Slovenia	1921	1991	
Somalia	1960		
South Africa	1994		
South Korea	1948		
Spain	1820		
Sri Lanka	1948		
Sudan	1956		
Suriname	1975		
Sweden	1866		
Switzerland	1848		
Syria	1946		
Taiwan	1949		
Tajikistan	1991		
Tanzania	1961		
Thailand	1932		
Togo	1960		
Tunisia	1956		
Turkey	1924		
Turkmenistan	1992		
Uganda	1962		
Ukraine	1918	1991	
United Arab Emirates	.		
Uruguay	1830		
USA	1868		
Uzbekistan	1991		
Venezuela	1821	1829	
Vietnam	1954		
Yemen	1962	1967	1990
Yugoslavia	1878	1921	
Zambia	1964		
Zimbabwe	1980		

Data Sources

Railways

For the Habsburg Empire, we relied on Strach (1906), Oberegger (2008), and Heinersdoff (1975); for the successor states of Yugoslavia on Oberegger (2008); for the Romanov empire on Perl (1872), Roll (1915), and Rautavuori (2008); for Germany on Roll (1915); for the former Soviet Union republics, on Central Statistical Administration (1957) and Sakari and Likka (2003); and for the Ottoman empire, on Bonnie (1998) and Karkar (1972).

Bonnie, Michael E. 1998. "The Introduction of Railroads in the Eastern Mediterranean: Economic and Social Impacts." In *The Syrian Land: Processes of Integration and Fragmentation*, edited by T. Philipp and B. Schaebler. Stuttgart, Germany: Franz Steiner.

Central Statistical Administration, Council of Ministers USSR. 1957. *USSR Transport and Communication: A Statistical Compilation*. Moscow: State Statistical Publishing House.

Heinersdoff, Richard. 1975. *Die K.U.K. privilegierten Eisenbahnen der österreichisch-ungarischen Monarchie, 1828–1918*. Vienna: Molden.

Karkar, Yaqub N. 1972. *Railway Development in the Ottoman Empire, 1856–1914*. New York: Vantage Press.

Oberegger, Elmar. 2008. *Zur Eisenbahngeschichte des Alpen-Donau-Adria Raumes* (<http://members.a1.net/edze/index.html>).

Perl, Louis. 1872. *Die russischen Eisenbahnen im Jahre 1970–1971*. St. Petersburg: Kaiserliche Hofbuchhandlung.

Rautavuori, Mauri. 2008. *Russian Railways* (<http://personal.inet.fi/private/raumarail/>)

Roll, Freiherr von. 1915. *Enzyklopädie des Eisenbahnwesens*. Vienna: Urban & Schwarzenberg.

Sakari, Salo and Hovi Likka. 2003. *Estonian Railways Today* (http://www.rrdc.com/article_05_2003_evr_todays_rwys.pdf).

Strach, Hermann. 1906. *Geschichte der Eisenbahnen der österreichisch-ungarischen Monarchie*, various volumes. Vienna: Karl Prochaska.

Government Expenditures

Our prime sources for calculating figures for the Spanish empire were Klein (1998); for the Ottoman empire, Shaw (1978) and Akar (1999) for government expenditure, and Cem Behar (1996) and Karpát (1985) for population data; for the Soviet Union Plotnikov (1948/1954) and *Svodnii otdel gosudarstvennogo byudzheta* (Various years), and for population data Side (1992) and Kozlov (1988). Soviet budgets include basically the entire economy, given the nature of the Soviet economy (on Soviet budgets, see Hutchings [1983]). To make these figures comparable to others, we exclude all expenses related to production and distribution of goods from the provincial budgets, including those related to pensions, health care, and the like.

Akar, Şevket K. 1999. "Osmanlı maliyesinde bütçe uygulaması." In *Osmanlı, Vol. 3*, edited by G. Eren. Ankara: Yeni Türkiye Yayınları.

Cem Behar, Osmanlı. 1996. *İmparatorluğu'nun ve Türkiye'nin Nüfusu, 1500–1927*. Ankara: DİE.

Hutchings, Raymond. 1983. *The Soviet Budget*. Albany, NY: SUNY Press.

Karpát, Kemal H. 1985. *Ottoman Population, 1830–1914: Demographic and Social Characteristics*. Madison, WI: University of Wisconsin Press.

Klein, Herbert. 1998. *The American Finances of the Spanish Empire: Royal Income and Expenditures in Colonial Mexico, Peru, and Bolivia, 1680–1809*. Albuquerque, NM: University of New Mexico Press.

Kozlov, Victor. 1988. *The Peoples of the Soviet Union*. Hutchinson, IN: Indiana University Press.

Plotnikov, Kirill Nikanarovich. 1948/1954. *Ocherki istorii biudzheta Sovetskogo gosudarstva*. Moscow: Gosfinizdat.

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Shaw, Stanford J. 1978. "Ottoman Expenditures and Budgets in the Late Nineteenth and Early Twentieth Centuries." *International Journal of Middle East Studies* 9:373–78.

Side, Shady. 1992. *The Firstbook of Demographics for the Republics of the Former Soviet Union, 1951–1990*. Shady Side: New World Demographics.

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Literacy

Multiple Territories across Continents

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Meyers Konversationslexikon 1885–1892. Vienna and Leipzig: Verlag des Bibliographischen Instituts. (For census data 1880 USA, 1874 Serbia, 1878 Portugal)

Darden, Keith and Anna Grzymala-Busse. 2006. "The Great Divide: Literacy, Nationalism, and the Communist Collapse." *World Politics* 59:83–115. (Armenia 1920, Azerbaijan 1918, Bosnia and Herzegovina 1920, Croatia 1920, Czech Republic, Estonia 1918, Latvia 1918)

Vanhanen, Tatu. 2000. "A New Dataset for Measuring Democracy, 1810–1998." *Journal of Peace Research* 37:251–65. (Afghanistan 1928, Argentina 1858, Austria 1928, Bolivia 1858 and 1878, Brazil 1858 and 1888, Chile 1858, Colombia 1858, Costa Rica 1858 and 1888, Czech Republic 1998, Denmark 1858, Djibouti 1988, Dominican Republic 1858 and 1868, Ecuador 1858, El Salvador 1868 and 1918, Ethiopia 1978, Guatemala 1868, Guinea-Bissau 1988, Honduras 1858 and 1888, Iran 1908, Iraq 1938, Ireland 1938, Israel 1948, Kuwait 1968, Kyrgyzstan 1998, Liberia 1908, Mongolia 1928, Nepal 1938, Netherlands 1858, Nicaragua 1858 and 1898, Norway 1888 and 1908, Panama 1908 and 1928, Paraguay 1858 and 1878, Peru 1858, South Africa 1918 and 1998, Suriname 1988, Switzerland 1858, Uruguay 1858, Venezuela 1858)

UNESCO. 1977. *Statistics of Educational Attainment and Illiteracy 1945–1974*. Paris: UNESCO. (Bahrain 1971, Bangladesh 1961, Botswana 1964, Burundi 1962, Cyprus 1964, Guinea-Bissau 1962, Guyana 1946, Ivory Coast 1962, Kenya 1962, Mali 1960, Mauritania 1965, Sudan 1956)

UNESCO. 2005. *Education for All, Literacy for Life*. Paris: UNESCO (http://portal.unesco.org/education/en/ev.php-URL_ID=43283&URL_DO=DO_TOPIC&URL_SECTION=201.html). (Indonesia 1950, Malawi 1950, Mozambique 1950, Nigeria 1950, Sri Lanka 1920, Uganda 1950)

UNESCO Institute for Statistics. 2002. *Literacy and Non Formal Education Sector: Estimates and Projections of Adult Illiteracy for Population Aged 15 Years and Above, by Country and by Gender, 1970–2015* (<http://www.uis.unesco.org/en/stats/statistics/literacy2000.htm>). (Belarus 1990, Turkmenistan 1995, Kazakhstan 1990, Moldova 1990, Mozambique 1975, Oman 1970, Uzbekistan 1990, Tadjikistan 1990, Zimbabwe 1980)

Ottoman Provinces

Findley, Carter W. 1989. *Ottoman Civil Officialdom*. Princeton, NJ: Princeton University Press. (Ottoman Empire 1800 and 1900)

Simon, Reeva. 1986. *Iraq between the Two World Wars: The Implementation of Nationalist Ideology*. New York: Columbia University Press. (Pg. 81; 1918 Iraq, supports Findley's estimates.)

Behar, Cem. 1986. "Review of Ottoman Population, 1830–1914." *Population Studies* 40(2). (Istanbul 1904 with 40 percent literate males, supports Findley's estimates and refutes Kemal Karpat's census figures.)

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Somel, Selcuk Aksin. 2001. *The Modernization of Public Education in the Ottoman Empire: 1839–1908*. Leiden: Brill. (Pg. 19 states on the basis of traveler reports about the number of Quran schools in the sixteenth and seventeenth centuries that “at least” one fourth of the urban population could read and write in Turkish; we assume he meant males only; supports Findley.)

Cole, Juan Ricardo. 2000. *Colonialism and Revolution in the Middle East: Social and Cultural Origins of Egypt's Urabi Movement*. Cairo: American University in Cairo Press. (Pg. 114 estimates readership of newspapers in Cairo at 1 percent in 1800 and 4.5 percent in 1880; supports Findley.)

Bergaoui, Sami. 1996. “Distribution des notaires dans la régence de Tunis en 1874.” *Arabica* 43:422–36. (Estimates the number of literates in the Tunisian population in 1874. All males that were minimally literate could register as a notary, and many did in villages, among tribes, and in the cities. Most of the Ulema, he maintains, were registered as notaries as well. He arrives at a total number of .4 of the male population, very low; we estimate a 1 percent literacy rate, assuming that all women were illiterate but 2 percent of men were; we use this figure for Lybia, Algeria, Morocco, and Malaysia for 1816.)

Hanna, Nelly. 2007. “Literacy and the ‘Great Divide’ in the Islamic world, 1300–1800.” *Journal of Global History* 2:175–93. (One third of the male population in Cairo in the late-eighteenth century went to elementary schools; Damascus early-eighteenth century: 20 percent of households had books; figures not used, but support low literacy rates in peripheries of Ottoman empire at the beginning of nineteenth century.)

Khalidi, Rashid. 2006. *The Iron Cage: The Story of the Palestinian Struggle for Statehood*. Boston, MA: Beacon Press. (Pg. 14, separate census figures for Jews and Arabs; combined with population statistics from McCarthy to calculate overall literacy rate in Israel; 1948 census figure for overall population.)

McCarthy, Justin. 1988. *The Population of Palestine: Population History and Statistics of the Late Ottoman Period and the Mandate*. New York: Columbia University Press. (Pg. 31, population figures for Israel.)

Roudometof, Victor. 2000. “The Social Origins of Balkan Politics: Nationalism, Underdevelopment, and the Nation-State in Greece, Serbia, and Bulgaria, 1880–1920.” *Mediterranean Quarterly* 11:144–63. (Greece 1840)

Daskalova, Krassimira. 1997. *Literacy and Reading in Nineteenth Century Bulgaria*. Washington: University of Washington. (For 1887 and later Bulgarian data)

Gordon, Jr., Raymond. 2005. *Ethnologue: Languages of the World*, 15th ed. Dallas, TX: SIL International. (Oman 1993)

South and South-East Asia

Basu, Aparna. 1981. *Essays in the History of Indian Education*. New Delhi, India: Concept Publishers. (For male literacy rates in Bombay, Gujarat, Bengal in 1821, used to calculate India overall.)

Bayly, C. A. 2008. *Indigenous and Colonial Origins of Comparative Economic Development: The Case of Colonial India and Africa*. BMPI Working Paper 59. (India estimate for 1800, confirms the magnitude of the calculations based on Basu.)

Statesman's Year-Book. 1885. Entry for “India.” Basingstoke: Palgrave. (For 1881 Indian census figures.)

Tambiah, Stanley. 1975. “Literacy in a Buddhist Village in North-East Thailand.” In *Literacy in Traditional Societies*, edited by J. Goody. Cambridge, UK: Cambridge University Press. (Pre-modern peripheral village literacy based on Buddhist schools in Thailand; arrives at similar figures of 20 percent literacy for males, of which, however, some lost capacity to read after school, as Reid's missionaries stated in second half of nineteenth century; 10 percent literacy is thus assumed for Thailand, Cambodia, and Laos in 1800.)

Reid, Anthony. 1990. *Southeast Asia in the Age of Commerce, 1450–1680*, Vol. 1, *The Lands below the Winds*. New Haven, CT: Yale University Press. (For interpretation of 1920 Indonesian data; for Siam second half of nineteenth century, when according to French missionaries only 10 percent of boys who went to school could read AND write, and short characterization of educational system in Malaysia that was geared toward literacy in Arab by elites, not mass literacy in vernaculars, which justifies giving it the 1800 figures of Maghreb countries.)

Cheesman, Nick. 2003. “State and Sangha in Burma.” *Comparative Education* 39:45–63. (1872 Burmese figures of 32 percent male literacy in British census, and information that older adult male prison population had literacy rate of 60 percent, which we use to estimate pre-colonial literacy rate in Burma.)

Nederlandsch-Indie. 1922. *Uitkomsten der in de Maand November 1920 Gehouden Volkstelling*. Batavia: Drukkerijen Ruygrok.

(Indonesia 1920)

Myrdal, Gunnar. 1968. *Asian Drama: An Inquiry into the Poverty of Nations*, Vol. III. New York: Pantheon. (Pg. 1674 for 1901, 1931 data on Burma, Sri Lanka, Malaysia, Philippines; India, Burma, and Sri Lanka based on UNESCO, Progress of Literacy in Various Countries; Philippines from Human Relations Area Files, Malaysia from UNESCO, World Illiteracy at Mid-Century.)

Europe

Reis, Jaime. 2005. "Economic Growth, Human Capital Formation and Consumption in Western Europe before 1800." In *Living Standards in the Past*, edited by R. C. Allen. Oxford, UK: Oxford University Press. (Figures for 1800 for Belgium, Netherlands, Norway, Sweden, Portugal, Hungary)

Toth, Istvan György. 1996. *Literacy and Written Culture in Early Modern Central Europe*. Budapest: CEU Press. (Pg. 53 for Hungarian lands in the first half of nineteenth century, confirms Reis's figure for "Hungary," based on ability to sign, not full literacy.)

Tortella, Gabriel. 1994. "Patterns of Economic Retardation and Recovery in South-Western Europe in the Nineteenth and Twentieth Centuries." *The Economic History Review* 47:1–21. (Figures for 1860 for Belgium, Spain, Portugal)

Crafts, N. 2002. "The Human Development Index, 1870–1999: Some Revised Estimates." *European Review of Economic History* 6:395–405. (Figures for 1870 for Australia, Belgium, Canada, Denmark, Finland, Norway, Spain, Sweden, Switzerland)

Statesman's Year-Book. 1885. Entry for "Serbia." Basingstoke: Palgrave. (For 1884 Serbian census figure)

Myers, Martha. 1977. "The Early Development of the Serbian and Romanian National Movements: 1800–1866." Presented at the Department of History and the Honors College at the University of Oregon. (Serbia 1866)

Soubeyroux, Jacques. 1985. "Niveles de alfabetización en la España del siglo XVIII. Primeros resultados de una encuesta en curso." *Revista de Historia Moderna* 5:159–72. (Spain late eighteenth century)

Messerli, Alfred. 2002. *Lesen un Schreiben 1700 bis 1900*. Tübingen: Niemeyer. (Chapter 3.3; Switzerland during the eighteenth century)

Grunder, Hans-Ulrich. 1998ff. "Alphabetisierung." In *Historisches Lexikon der Schweiz*. Bern: Swiss Academy of Humanities and Social Sciences. (For additional data on late-eighteenth century Switzerland)

Markussen, Ingrid. 1990. "The Development of Writing Ability in the Nordic Countries in the Eighteenth and Nineteenth Century." *Scandinavian Journal of History* 15:37–63. (For estimation of growth rate of full literacy among Danes, based on growth of signing ability of peasants and reading ability of prison inmates, used to extrapolate Danish census data back.)

Johansson, Egil. 1988. "Literacy Campaigns in Sweden." *Interchange* 19:135–62. (Finland 1880 and 1920)

Habsburg Domains

Hickman, Anton. 1909. *Geographisch-statistischer Taschen-Atlas von Oesterreich-Ungarn*. Wien: Freytag & Berndt. (Austrian successor states in 1880, Austrian parts of Croatia)

Toth, Istvan György. 1996. *Literacy and Written Culture in Early Modern Central Europe*. Budapest: CEU Press. (Pg. 196 for 1870 and 1890 data for Hungarians, Slovaks, Croats, Romanians in the Hungarian kingdom, based on census data; the Croatian data were combined with those derived from Austrian part from Hickmann. Pgs. 36–46 for the parallels in effective implementation of school reform in Prussia and Austria, and the comparable rates of primary school attendance in the early-nineteenth century.)

Vardy, Bela. 2001. "Image and Self-Image among Hungarian Americans." *East Europe Quarterly* 35:309–345. (For 1910 Slovakia figure, derived from census)

van Horn Melton, James. 1988. *Absolutism and Eighteenth-Century Origins of Compulsory Schooling in Prussia and Austria*. Cambridge, UK: Cambridge University Press. (For the parallel efforts at developing an "enlightened" school system in Prussia and Austria in the late-eighteenth century.)

Winnige, Norbert. 2001. "Alphabetisierung in Brandenburg-Preussen 1600–1850. Zu den Grundlagen von Kommunikation und Rezeption." *Ralf Pröve and Norbert Winnige, Wissen ist Macht. Herrschaft und Kommunikation in Brandenburg-Preussen 1600–*

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1850. Berlin: Spitz. (Data for Prussian provinces, based on recruitment data and signatures of marrying couples; we use the Westphalian couple signature data (45 percent) in 1800 to 1814 for getting a starting point for the Austrian, Slovenian, Czech data series; the Westphalian provinces were, as recruitment data show, closer in degrees of alphabetization to Prussia-Brandenburg than, for example, Saxony or the Rhineland.)

Russian Empire

Hughes, Lindsey. 2006. "Russian Culture in the Eighteenth Century." In *The Cambridge History of Russia: Imperial Russia, 1691–1917*, edited by M. Perrie. Cambridge, UK: Cambridge University Press. (Russia 1797)

Yudina, P. F. and F. N. Petrova. 1946. *Strany Mira*. Moscow: Gosudarstvenii Nauchnii Institute "Sovetskaya Entsiklopediya." (1926 for the Central Asian Republics. 1926 and 1939 figures for Russia, Ukraine, Belarus, Azerbaijan, Georgia, Armenia, Turkmenistan, Uzbekistan, Tadjikistan, Kazakstan, Kirghistan.)

Dickens, Mark. 1988. *Soviet Language Policy in Central Asia* (<http://www.oxuscom.com/lang-policy.htm>). (1897 census figures for the Central Asian republics)

Troinitsskii, N. A. 1905. *Obshtii Svod po Imperii Rezultatov Razrabotki Dannuih Pervoi Vseobshtei Perepisi Nasalenia, Proizvedennoi 28 Yanvarya 1897 Goda*. Saint Petersburg: Tsentralny statisticheskii komitet. (For 1897 census figures regarding Caucasian republics and for European Russia to calculate Poland; unfortunately these figures seem to refer to reading, not reading and writing, according to Raun.)

Bogdanov, Ivan Mikhailovich. 1964. *Gramotnost i obrazovanie v dorevoliutsionnoi Rossii i v USSR; Istoriko-statisticheskii ocherki*. Moscow: Statistika. (Bessarabia, which we took for the whole of Moldava, 1883 and 1897.)

Raun, Toivo U. 1979. "The Development of Estonian Literacy in the 18th and 19th centuries." *Journal of Baltic Studies* 10:115–26. (For Baltic literacy around 1816, calculated on the basis of older age cohorts in later censuses, plus Estonian and Livland literacy in 1881 census data.)

Cipolla, Carlo M. 1969. *Literacy and Development in the West*. Baltimore, MD: Pelican. (For Prussia, Posnaia, Pomerania in 1871, which was combined with European Russia data from 1897, based on Obshtii Svod, to calculate Poland.)

StateUniversity.com. 2009. *Belarus: History and Background* (<http://education.stateuniversity.com/pages/139/Belarus-HISTORY-BACKGROUND.html>). (Belarus 1894, Lithuania 1894)

Liber, George. 1982. "Language, Literacy, and Book Publishing in the Ukrainian SSR, 1923–1928." *Slavic Review* 41:673–85. (Ukraine 1897)

The Americas and Pacific Settler Societies

Leigh, Edwin. 1870. "Illiteracy in the United States." *American Journal of Education* 19:801–835. (United States 1850 and 1860)

Soltow, Lee. 1981. *The Rise of Literacy and the Common School in the United States: A Socioeconomic Analysis to 1870*. Chicago, IL: University of Chicago Press. (His figures for whites 1800 are used to calculate overall 1800 figures, using ratio for white to non-white literacy from Leigh.)

Seecharan, Clem. 1997. *Tiger in the Stars: The Anatomy of Indian Achievement in British Guiana 1919–1929*. London, UK: Macmillan. (For Guyana 1931, based on census)

Korotayev, Andrey, Artemy Malkov, and Daria Khaltourina. 2006. *Introduction to Social Macrodynamics: Compact Macro-Models of the World System Growth*. Moscow: Editorial URSS. (Pg. 87ff. for Mexico 1800)

Commonwealth Bureau of Census and Statistics and Chas H. Wickens. 1921. *Census of the Commonwealth of Australia, Taken for the Night between the 3rd and 4th April, 1921*. Melbourne: H.J. Green, Government Printer. (Australia 1901, 1911, 1921; excludes aborigines)

Sinclair, Keith. 1990. *The Oxford Illustrated History of New Zealand*. Auckland: Oxford University Press. (New Zealand 1871, 1886)

Lloyd Prichard, Muriel F. 1970. *An Economic History of New Zealand to 1939*. Auckland: Collins. (New Zealand 1896, 1911)

Africa

Gogue, Anne Marie. 2006. *Aux origines du mai malgache: désir d'école et compétition sociale, 1951–1972*. Paris: Karthala. (Figures for pre-colonial Madagascar)

Campbell, Gwyn. 1991. "The State and Pre-colonial Demographic History: The Case of Nineteenth Century Madagascar." *Journal of African History* 32:415–45. (For nineteenth-century Madagascar population figures)

Census Office of the Cape of Good Hope. 1875. *Census of the Colony of the Cape of Good Hope*. Cape Town: Saul Solomon and Company. (Lesotho/Basutoland)

Smith, Michael G. 1975. *Corporations and Society: On the Social Anthropology of Collective Action*. New Brunswick, NJ: Aldine. (For 1946 Guyana)

Moradi, A. N.d. *Men under Arms in Colonial Africa: Gold Coast Regiment*. University of Sussex, Department of Economics, unpublished manuscript. (For Ghana 1916 and 1942 based on literacy tests for World War army recruits, used to calculate increase between these data point for other British colonies in Africa.)

Lange, Matthew. 2003. "Embedding the Colonial State: A Comparative Analysis of State Building and Broad-Based Development in Mauritius." *Social Science History* 27:397–423. (For Mauritius 1931, 1944, 1952, and estimate for 1830, assuming that all slaves and former slaves of mixed descent were illiterate, and 50 percent whites and frees literate, that is, to the same degree as in France of 1830 according to Cipolla.)

Snelson, Peter. 1974. *Educational Development in Northern Rhodesia, 1883–1945*. Lusaka: National Educational Company of Zambia. (Zambia 1945)

Hizen, H. and V. H. Hundsdörfer. 1979. *The Tanzanian Experience: Education for Liberation and Development*. Hamburg: UNESCO Institute for Education. (Tanzania 1967)

Central Intelligence Agency. 2009. "Eritrea" in *World Factbook* (<https://www.cia.gov/library/publications/the-world-factbook/print/er.html>). (Eritrea 2003)

StateUniversity.com. *Angola: Constitutional and Legal Foundations* (<http://education.stateuniversity.com/pages/33/Angola-CONSTITUTIONAL-LEGAL-FOUNDATIONS.html>). (Angola 1975)

UNESCO. 1957. *World Illiteracy at Mid-Century: A Statistical Study*. Paris: UNESCO. (Eritrea 1950, Gambia 1950)

East Asia

Kim, Chong-Soi. 2001. *Hane'guk munhae kyoyuk yoine'gu*. Seoul: Kyoyuk Kwahaksa. (For 1930 Korea data, based on census: 15.5 percent read Korean script; 7.6 both Korean and Japanese; and .03 Japanese scripts only, average 22.3 in either Korean or Japanese.)

Simpson, Andrew. 2007. *Language and National Identity in Asia*. Oxford, UK: Oxford University Press. (P. 210 mentions that literacy in Korean in pre-colonial Korea was not higher than during colonial times; which confirms taking the Chinese figures for pre-colonial Korea.)

Rawski, Evelyn S. 1979. *Education and Popular Literacy in Ch'ing China*. Ann Arbor, MI: University of Michigan Press. (Chapter 7, for 1850–1900 China, which we also use as figure for Vietnam and Korea during pre-colonial period.)

Woodside, Alexander. 1983. "The Triumphs and Failures of Mass Education in Vietnam." *Pacific Affairs* 56:401–427. (Criticizes the Viet Kongs assertion, repeated in UNESCO documents, that 95 percent of the population were illiterate in 1945; supports idea of widespread literacy.)

Cooke, Nola. 1995. "The Composition of the Nineteenth-Century Political Elite of Pre-colonial Nguyen Vietnam (1802–1883)." *Modern Asian Studies* 29:741–64. (Supports idea of widespread minimal literacy in pre-colonial Vietnam, p. 201, even though the Confucian examination system was highly elitist.)

Dore, Ronald P. 1992. *Education in Tokugawa Japan*. Berkeley, CA: University of California Press. (Estimates in Appendix 1 that 26.5 percent of school-age children had gone to 3 to 4 years writing schools in 1868; our data rely on Taira's interpretation of Dore's data.)

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Rubinger, Richard. 2007. *Popular Literacy in Early Modern Japan*. Honolulu, HI: University of Hawaii Press. (Full literacy in remote rural village in 1881: 8.2 percent of males, largely stable over generations; 20 year old military recruits in 1899 [able to sign plus more than “some education”]: 53 percent; gender gap in ability to sign one’s name in three prefectures from 1876 to 1885: 34 percent; combining gender gap and military recruits data, one arrives at estimate for 1889 20 years old of 36 percent; all these data not used, we relied on Taira instead.)

Taira, Koji. 1971. “Education and Literacy in Meiji Japan: An interpretation.” *Explorations in Economic History* 8(4): 371-394. (Used for data 1816, 1868, 1910, the former two based on Dore, the latter on school enrollment rates, made plausible by data from military recruits plus factory surveys.)