

6 Appendix

Table A1: Replication of Table 5 with a ZINB model and population polynomials

Variables	(33) Medals > 0 (Rio)	(34) AME	(35) Nonzero logit (Rio)	(36) AME
Gini coefficient	-0.0234* (0.0128)	-0.325* (0.179)	-0.335*** (0.119)	-0.0177*** (0.00530)
Economic freedom index	0.292* (0.163)	4.065* (2.304)	0.811 (0.989)	0.0428 (0.0512)
GDP pc ppp	-5.66e-06 (7.23e-06)	-7.89e-05 (9.77e-05)	2.38e-05 (3.07e-05)	1.26e-06 (1.69e-06)
Saving rate	0.00667** (0.00320)	0.0929** (0.0439)	0.126** (0.0551)	0.00663*** (0.00232)
State expenditures on health	-0.00889 (0.0872)	-0.124 (1.220)	0.258 (0.455)	0.0136 (0.0232)
State expenditures on military	0.110 (0.0938)	1.537 (1.354)	-0.305 (0.420)	-0.0161 (0.0226)
Life expectancy	-0.00949 (0.0196)	-0.132 (0.277)	-0.171 (0.114)	-0.00905 (0.00573)
LN age of athletes	-3.401 (3.247)	-47.39 (45.36)	-7.051 (4.734)	-0.372 (0.244)
LN average weight of athletes	1.925 (1.269)	26.83 (18.19)	-1.439 (4.528)	-0.0759 (0.240)
Share of athletes	0.783*** (0.145)	10.92*** (3.040)	27.22*** (5.835)	1.436*** (0.221)
LN population	1.747 (1.078)	24.35 (15.25)	12.18** (4.869)	0.643** (0.279)
LN population sq.	-0.0482 (0.0314)	-0.672 (0.445)	-0.346** (0.143)	-0.0183** (0.00821)
Constant	-12.28 (12.90)		-65.89 (49.60)	
Observations	68	68	122	122

Controlled for regions (Sub-Saharan Africa, East Asia, Latin America, Europe)
Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A2: Replication of Table 7 with a ZINB model and population polynomials

Variables	(37) Medals > 0 (Rio)	(38) AME	(39) Nonzero logit (Rio)	(40) AME
Top 10% share	-0.0275 (0.0173)	-0.384 (0.243)	-0.407*** (0.137)	-0.0215*** (0.00617)
Economic freedom index	0.292* (0.160)	4.083* (2.275)	0.666 (0.957)	0.0352 (0.0498)
GDP pc ppp	-5.75e-06 (7.36e-06)	-8.04e-05 (9.95e-05)	2.55e-05 (2.72e-05)	1.35e-06 (1.49e-06)
Saving rate	0.00689** (0.00325)	0.0962** (0.0448)	0.110** (0.0489)	0.00579*** (0.00207)
State expenditures on health	-0.00291 (0.0896)	-0.0407 (1.254)	0.217 (0.460)	0.0115 (0.0238)
State expenditures on military	0.110 (0.0966)	1.543 (1.399)	-0.253 (0.479)	-0.0134 (0.0255)
Life expectancy	-0.0108 (0.0199)	-0.151 (0.283)	-0.143 (0.105)	-0.00754 (0.00531)
LN age of athletes	-3.420 (3.210)	-47.77 (44.91)	-8.596 (5.244)	-0.454* (0.269)
LN average weight of athletes	1.893 (1.274)	26.45 (18.31)	-1.363 (4.938)	-0.0720 (0.263)
Share of athletes	0.777*** (0.144)	10.85*** (3.031)	25.06*** (5.281)	1.324*** (0.204)
LN population	1.759 (1.072)	24.58 (15.21)	10.45** (4.496)	0.552** (0.262)
LN population sq.	-0.0487 (0.0311)	-0.681 (0.443)	-0.294** (0.133)	-0.0155** (0.00776)
Constant	-12.13 (12.91)		-47.75 (50.29)	
Observations	68	68	122	122

Controlled for regions (Sub-Saharan Africa, East Asia, Latin America, Europe)
Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A3: Table without population top 10

Variables	(41) Medals > 0 (Rio)	(42) AME	(43) Nonzero logit (Rio)	(44) AME
Gini coefficient	-0.0384** (0.0195)	-0.0258** (0.0130)	-0.364** (0.162)	-0.0189** (0.00920)
Economic freedom index	0.756*** (0.176)	0.507*** (0.133)	-0.425 (1.247)	-0.0221 (0.0637)
GDP pc ppp	-1.40e-05* (7.16e-06)	-9.38e-06* (5.24e-06)	4.40e-05* (2.52e-05)	2.29e-06 (1.40e-06)
Saving rate	-0.000511 (0.00193)	-0.000343 (0.00128)	0.205*** (0.0601)	0.0106*** (0.00337)
State expenditures on health	0.0981 (0.0768)	0.0658 (0.0548)	-0.0550 (0.363)	-0.00286 (0.0190)
State expenditures on military	-0.0290 (0.134)	-0.0195 (0.0911)	-0.324 (0.358)	-0.0169 (0.0194)
Life expectancy	0.0184 (0.0298)	0.0124 (0.0201)	-0.280** (0.130)	-0.0145* (0.00757)
LN age of athletes	-2.481 (4.761)	-1.665 (3.263)	-11.04 (7.316)	-0.574 (0.367)
LN average weight of athletes	7.017*** (1.641)	4.709*** (1.452)	4.398 (5.841)	0.229 (0.286)
Share of athletes	-0.0802 (0.100)	-0.0538 (0.0688)	28.85*** (6.578)	1.499*** (0.398)
Constant	-27.26** (13.06)		44.26 (31.50)	
Observations	60	60	113	113

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A4: Table without population top 10

Variables	(45) Medals > 0 (Rio)	(46) AME	(47) Nonzero logit (Rio)	(48) AME
Top 10% share	-0.0454 (0.0283)	-0.0307 (0.0191)	-0.550** (0.245)	-0.0286** (0.0136)
Economic freedom index	0.754*** (0.178)	0.510*** (0.135)	-0.733 (1.224)	-0.0382 (0.0619)
GDP pc ppp	-1.42e-05** (6.95e-06)	-9.58e-06* (5.14e-06)	4.91e-05* (2.56e-05)	2.56e-06* (1.42e-06)
Saving rate	0.000109 (0.00178)	7.36e-05 (0.00121)	0.207*** (0.0605)	0.0108*** (0.00338)
State expenditures on health	0.108 (0.0797)	0.0727 (0.0573)	-0.161 (0.364)	-0.00836 (0.0193)
State expenditures on military	-0.0262 (0.143)	-0.0177 (0.0974)	-0.418 (0.360)	-0.0217 (0.0196)
Life expectancy	0.0134 (0.0307)	0.00907 (0.0208)	-0.282** (0.126)	-0.0147** (0.00738)
LN age of athletes	-2.521 (4.719)	-1.704 (3.254)	-13.60* (7.147)	-0.708** (0.358)
LN average weight of athletes	6.899*** (1.643)	4.661*** (1.473)	4.363 (5.877)	0.227 (0.288)
Share of athletes	-0.0887 (0.102)	-0.0599 (0.0710)	28.97*** (6.987)	1.508*** (0.398)
Constant	-26.37** (13.02)		57.97* (32.38)	
Observations	60	60	113	113

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A5: Table without China, Russia, UK and US

Variables	(49) Medals > 0 (Rio)	(50) AME	(51) Nonzero logit (Rio)	(52) AME
Gini coefficient	-0.0352* (0.0193)	-0.0211* (0.0115)	-0.303** (0.135)	-0.0163** (0.00801)
Economic freedom index	0.749*** (0.186)	0.449*** (0.127)	0.485 (1.060)	0.0260 (0.0567)
GDP pc ppp	-1.89e-05** (7.55e-06)	-1.13e-05** (5.01e-06)	2.69e-05 (2.42e-05)	1.44e-06 (1.35e-06)
Saving rate	0.000518 (0.00198)	0.000311 (0.00120)	0.175*** (0.0586)	0.00938*** (0.00315)
State expenditures on health	0.164* (0.0836)	0.0981* (0.0541)	0.350 (0.346)	0.0188 (0.0175)
State expenditures on military	0.0101 (0.152)	0.00604 (0.0907)	-0.160 (0.300)	-0.00859 (0.0166)
Life expectancy	0.0351 (0.0305)	0.0210 (0.0186)	-0.325** (0.149)	-0.0175** (0.00808)
LN age of athletes	-1.942 (4.265)	-1.164 (2.576)	-7.601 (6.945)	-0.408 (0.386)
LN average weight of athletes	6.508*** (1.738)	3.900*** (1.251)	0.889 (5.015)	0.0477 (0.268)
Share of athletes	-0.177* (0.101)	-0.106 (0.0649)	27.20*** (5.842)	1.459*** (0.355)
Constant	-28.36** (12.30)		41.68 (30.71)	
Observations	66	66	120	120

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A6: Table without China, Russia, UK and US

Variables	(53) Medals > 0 (Rio)	(54) AME	(55) Nonzero logit (Rio)	(56) AME
Top 10% share	-0.0420 (0.0286)	-0.0254 (0.0173)	-0.485** (0.237)	-0.0257** (0.0131)
Economic freedom index	0.748*** (0.192)	0.451*** (0.132)	0.485 (1.160)	0.0257 (0.0609)
GDP pc ppp	-1.91e-05*** (7.29e-06)	-1.15e-05** (4.89e-06)	2.95e-05 (2.46e-05)	1.56e-06 (1.36e-06)
Saving rate	0.00101 (0.00189)	0.000610 (0.00116)	0.185*** (0.0664)	0.00981*** (0.00343)
State expenditures on health	0.171** (0.0852)	0.103* (0.0555)	0.283 (0.337)	0.0150 (0.0172)
State expenditures on military	0.0112 (0.160)	0.00673 (0.0961)	-0.184 (0.315)	-0.00978 (0.0172)
Life expectancy	0.0317 (0.0320)	0.0191 (0.0196)	-0.346** (0.172)	-0.0184** (0.00898)
LN age of athletes	-2.056 (4.256)	-1.240 (2.585)	-9.785 (6.905)	-0.519 (0.385)
LN average weight of athletes	6.397*** (1.752)	3.858*** (1.278)	0.295 (5.502)	0.0156 (0.292)
Share of athletes	-0.183* (0.103)	-0.110* (0.0671)	27.95*** (7.195)	1.482*** (0.385)
Constant	-27.36** (12.26)		55.62 (35.88)	
Observations	66	66	120	120

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1