

Supplementary Information for
A simple method for measuring inequality

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Table S1. Descriptive statistics of the B_{10}/T_{10} ratio, the Gini index, H, and income inequality index (I) in 2005 (the World Bank database).

Indicator	Mean	Median	Mode	Minimum	Maximum	Standard Deviation
B_{10}/T_{10}	0.094	0.093	-	0.011	0.198	0.049
Gini	0.387	0.363	0.347	0.246	0.648	0.093
H	0.463	0.448	-	0.333	0.677	0.084
I	0.427	0.408	-	0.295	0.640	0.087

Number of countries = 75

Table S2. Correlation coefficients between indicators in 2005 (the World Bank database).

Indicator	B_{10}/T_{10}	Gini	H	I
B_{10}/T_{10}	1.000			
Gini	-0.950	1.000		
H	-0.969	0.981	1.000	
I	-0.964	0.995	0.996	1.000

Table S3. Descriptive statistics of the B_{10}/T_{10} ratio, the Gini index, H, and income inequality index (I) in 2006 (the World Bank database).

Indicator	Mean	Median	Mode	Minimum	Maximum	Standard Deviation
B_{10}/T_{10}	0.100	0.102	0.143	0.014	0.202	0.049
Gini	0.373	0.346	0.297	0.244	0.575	0.089
H	0.454	0.435	0.385	0.330	0.658	0.085
I	0.416	0.396	#N/A	0.290	0.618	0.086

Number of countries = 75

Table S4. Correlation coefficients between indicators in 2006 (the World Bank database).

Indicator	B_{10}/T_{10}	Gini	H	I
B_{10}/T_{10}	1.000			
Gini	-0.955	1.000		
H	-0.973	0.969	1.000	
I	-0.972	0.991	0.993	1.000

Table S5. Descriptive statistics of the B_{10}/T_{10} ratio, the Gini index, H, and income inequality index (I) in 2007 (the World Bank database).

Indicator	Mean	Median	Mode	Minimum	Maximum	Standard Deviation
B_{10}/T_{10}	0.104	0.104	-	0.019	0.201	0.046
Gini	0.365	0.344	0.312	0.244	0.558	0.081
H	0.445	0.433	-	0.330	0.628	0.074
I	0.407	0.389	-	0.290	0.590	0.077

Number of countries = 73

Table S6. Correlation coefficients between indicators in 2007 (the World Bank database).

Indicator	B_{10}/T_{10}	Gini	H	I
B_{10}/T_{10}	1.000			
Gini	-0.957	1.000		
H	-0.976	0.983	1.000	
I	-0.971	0.995	0.996	1.000

Table S7. Descriptive statistics of the B_{10}/T_{10} ratio, the Gini index, H, and income inequality index (I) in 2008 (the World Bank database).

Indicator	Mean	Median	Mode	Minimum	Maximum	Standard Deviation
B_{10}/T_{10}	0.102	0.105	0.094	0.019	0.209	0.049
Gini	0.371	0.342	0.336	0.237	0.630	0.089
H	0.451	0.431	0.447	0.324	0.626	0.080
I	0.413	0.392	-	0.284	0.628	0.084

Number of countries = 74

Table S8. Correlation coefficients between indicators in 2008 (the World Bank database).

Indicator	B_{10}/T_{10}	Gini	H	I
B_{10}/T_{10}	1.000			
Gini	-0.947	1.000		
H	-0.976	0.980	1.000	
I	-0.967	0.995	0.995	1.000

Table S9. Descriptive statistics of the B_{10}/T_{10} ratio, the Gini index, H, and income inequality index (I) in 2009 (the World Bank database).

Indicator	Mean	Median	Mode	Minimum	Maximum	Standard Deviation
B_{10}/T_{10}	0.099	0.099	0.137	0.022	0.203	0.049
Gini	0.373	0.349	0.439	0.248	0.610	0.088
H	0.454	0.440	0.392	0.329	0.616	0.078
I	0.416	0.397	-	0.293	0.610	0.082

Number of countries = 79

Table S10. Correlation coefficients between indicators in 2009 (the World Bank database).

Indicator	B_{10}/T_{10}	Gini	H	I
B_{10}/T_{10}	1.000			
Gini	-0.940	1.000		
H	-0.980	0.969	1.000	
I	-0.967	0.992	0.993	1.000

Table S11. Descriptive statistics of the B_{10}/T_{10} ratio, the Gini index, H, and income inequality index (I) in 2010 (the World Bank database).

Indicator	Mean	Median	Mode	Minimum	Maximum	Standard Deviation
B_{10}/T_{10}	0.103	0.106	0.164	0.018	0.210	0.047
Gini	0.366	0.341	0.347	0.248	0.634	0.083
H	0.447	0.429	0.363	0.323	0.636	0.074
I	0.409	0.389	-	0.288	0.635	0.077

Number of countries = 85

Table S12. Correlation coefficients between indicators in 2010 (the World Bank database).

Indicator	B_{10}/T_{10}	Gini	H	I
B_{10}/T_{10}	1.000			
Gini	-0.928	1.000		
H	-0.978	0.961	1.000	
I	-0.963	0.989	0.991	1.000

Table S13. Descriptive statistics of the B_{10}/T_{10} ratio, the Gini index, H, and income inequality index (I) in 2011 (the World Bank database).

Indicator	Mean	Median	Mode	Minimum	Maximum	Standard Deviation
B_{10}/T_{10}	0.105	0.106	0.056	0.018	0.213	0.048
Gini	0.361	0.340	0.276	0.246	0.562	0.079
H	0.444	0.429	-	0.321	0.633	0.074
I	0.405	0.381	-	0.286	0.599	0.075

Number of countries = 77

Table S14. Correlation coefficients between indicators in 2011 (the World Bank database).

Indicator	B_{10}/T_{10}	Gini	H	I
B_{10}/T_{10}	1.000			
Gini	-0.942	1.000		
H	-0.979	0.968	1.000	
I	-0.969	0.991	0.993	1.000

Table S15. Descriptive statistics of the B_{10}/T_{10} ratio, the Gini index, H, and income inequality index (I) in 2012 (the World Bank database).

Indicator	Mean	Median	Mode	Minimum	Maximum	Standard Deviation
B_{10}/T_{10}	0.103	0.099	0.076	0.020	0.212	0.047
Gini	0.361	0.353	0.290	0.247	0.561	0.074
H	0.446	0.440	0.475	0.322	0.622	0.071
I	0.406	0.402	-	0.287	0.592	0.072

Number of countries = 78

Table S16. Correlation coefficients between indicators in 2012 (the World Bank database).

Indicator	B_{10}/T_{10}	Gini	H	I
B_{10}/T_{10}	1.000			
Gini	-0.940	1.000		
H	-0.978	0.966	1.000	
I	-0.969	0.990	0.993	1.000

Table S17. Descriptive statistics of the B_{10}/T_{10} ratio, the Gini index, H, and income inequality index (I) in 2013 (the World Bank database).

Indicator	Mean	Median	Mode	Minimum	Maximum	Standard Deviation
B_{10}/T_{10}	0.101	0.093	0.128	0.026	0.209	0.047
Gini	0.365	0.362	0.325	0.246	0.528	0.075
H	0.449	0.448	0.402	0.324	0.597	0.070
I	0.409	0.410	-	0.288	0.564	0.072

Number of countries = 76

Table S18. Correlation coefficients between indicators in 2013 (the World Bank database).

Indicator	B_{10}/T_{10}	Gini	H	I
B_{10}/T_{10}	1.000			
Gini	-0.939	1.000		
H	-0.980	0.967	1.000	
I	-0.969	0.990	0.993	1.000

Table S19. Descriptive statistics of the B_{10}/T_{10} ratio, the Gini index, H, and income inequality index (I) in 2014 (the World Bank database).

Indicator	Mean	Median	Mode	Minimum	Maximum	Standard Deviation
B_{10}/T_{10}	0.103	0.101	0.136	0.018	0.218	0.049
Gini	0.364	0.352	0.268	0.240	0.630	0.082
H	0.448	0.437	0.393	0.316	0.635	0.074
I	0.409	0.402	-	0.281	0.632	0.077

Number of countries = 75

Table S20. Correlation coefficients between indicators in 2014 (the World Bank database).

Indicator	B_{10}/T_{10}	Gini	H	I
B_{10}/T_{10}	1.000			
Gini	-0.922	1.000		
H	-0.977	0.965	1.000	
I	-0.959	0.990	0.992	1.000

Table S21. Descriptive statistics of the B_{10}/T_{10} ratio, the Gini index, H, and income inequality index (I) in 2015 (the World Bank database).

Indicator	Mean	Median	Mode	Minimum	Maximum	Standard Deviation
B_{10}/T_{10}	0.101	0.095	0.126	0.021	0.194	0.048
Gini	0.367	0.356	0.318	0.254	0.591	0.081
H	0.450	0.445	0.404	0.336	0.619	0.074
I	0.411	0.408	-	0.298	0.605	0.077

Number of countries = 75

Table S22. Correlation coefficients between indicators in 2015 (the World Bank database).

Indicator	B_{10}/T_{10}	Gini	H	I
B_{10}/T_{10}	1.000			
Gini	-0.936	1.000		
H	-0.977	0.969	1.000	
I	-0.965	0.991	0.993	1.000

Table S23. Descriptive statistics of the B_{10}/T_{10} ratio, the Gini index, H, and income inequality index (I) in 2005 (the OECD IDD).

Indicator	Mean	Median	Mode	Minimum	Maximum	Standard Deviation
B_{10}/T_{10}	0.257	0.238	0.323	0.172	0.333	0.058
Gini	0.315	0.324	0.324	0.240	0.392	0.046
H	0.291	0.301	0.246	0.240	0.356	0.041
I	0.303	0.309	-	0.240	0.374	0.043

Number of countries = 15

Table S24. Correlation coefficients between indicators in 2005 (the OECD IDD).

Indicator	B_{10}/T_{10}	Gini	H	I
B_{10}/T_{10}	1.000			
Gini	-0.951	1.000		
H	-0.998	0.956	1.000	
I	-0.983	0.991	0.986	1.000

Table S25. Descriptive statistics of the B_{10}/T_{10} ratio, the Gini index, H, and income inequality index (I) in 2006 (the OECD IDD).

Indicator	Mean	Median	Mode	Minimum	Maximum	Standard Deviation
B_{10}/T_{10}	0.250	0.238	0.323	0.096	0.333	0.063
Gini	0.319	0.316	0.268	0.237	0.510	0.062
H	0.298	0.301	0.246	0.240	0.443	0.051
I	0.309	0.308	-	0.239	0.478	0.056

Number of countries = 17

Table S26. Correlation coefficients between indicators in 2006 (the OECD IDD).

Indicator	B_{10}/T_{10}	Gini	H	I
B_{10}/T_{10}	1.000			
Gini	-0.951	1.000		
H	-0.987	0.979	1.000	
I	-0.972	0.996	0.993	1.000

Table S27. Descriptive statistics of the B_{10}/T_{10} ratio, the Gini index, H, and income inequality index (I) in 2007 (the OECD IDD).

Indicator	Mean	Median	Mode	Minimum	Maximum	Standard Deviation
B_{10}/T_{10}	0.265	0.263	0.333	0.164	0.333	0.051
Gini	0.304	0.312	-	0.239	0.374	0.041
H	0.285	0.284	0.240	0.240	0.364	0.036
I	0.295	0.296	-	0.240	0.369	0.038

Number of countries = 19

Table S28. Correlation coefficients between indicators in 2007 (the OECD IDD).

Indicator	B_{10}/T_{10}	Gini	H	I
B_{10}/T_{10}	1.000			
Gini	-0.957	1.000		
H	-0.997	0.951	1.000	
I	-0.987	0.990	0.985	1.000

Table S29. Descriptive statistics of the B_{10}/T_{10} ratio, the Gini index, H, and income inequality index (I) in 2008 (the OECD IDD).

Indicator	Mean	Median	Mode	Minimum	Maximum	Standard Deviation
B_{10}/T_{10}	0.271	0.270	0.333	0.172	0.345	0.050
Gini	0.300	0.305	-	0.234	0.373	0.042
H	0.281	0.279	0.240	0.234	0.356	0.034
I	0.291	0.287	-	0.237	0.364	0.038

Number of countries = 21

Table S30. Correlation coefficients between indicators in 2008 (the OECD IDD).

Indicator	B_{10}/T_{10}	Gini	H	I
B_{10}/T_{10}	1.000			
Gini	-0.949	1.000		
H	-0.998	0.947	1.000	
I	-0.982	0.990	0.983	1.000

Table S31. Descriptive statistics of the B_{10}/T_{10} ratio, the Gini index, H, and income inequality index (I) in 2009 (the OECD IDD).

Indicator	Mean	Median	Mode	Minimum	Maximum	Standard Deviation
B_{10}/T_{10}	0.253	0.250	0.323	0.112	0.345	0.067
Gini	0.316	0.312	0.245	0.241	0.485	0.066
H	0.296	0.293	0.246	0.234	0.421	0.051
I	0.306	0.300	-	0.237	0.454	0.058

Number of countries = 23

Table S32. Correlation coefficients between indicators in 2009 (the OECD IDD).

Indicator	B_{10}/T_{10}	Gini	H	I
B_{10}/T_{10}	1.000			
Gini	-0.952	1.000		
H	-0.992	0.974	1.000	
I	-0.975	0.996	0.991	1.000

Table S33. Descriptive statistics of the B_{10}/T_{10} ratio, the Gini index, H, and income inequality index (I) in 2010 (the OECD IDD).

Indicator	Mean	Median	Mode	Minimum	Maximum	Standard Deviation
B_{10}/T_{10}	0.262	0.263	0.313	0.108	0.357	0.059
Gini	0.305	0.298	0.298	0.244	0.472	0.053
H	0.288	0.284	0.252	0.227	0.427	0.045
I	0.297	0.291	-	0.238	0.450	0.049

Number of countries = 21

Table S34. Correlation coefficients between indicators in 2010 (the OECD IDD).

Indicator	B_{10}/T_{10}	Gini	H	I
B_{10}/T_{10}	1.000			
Gini	-0.963	1.000		
H	-0.989	0.982	1.000	
I	-0.979	0.996	0.994	1.000

Table S35. Descriptive statistics of the B_{10}/T_{10} ratio, the Gini index, H, and income inequality index (I) in 2011 (the OECD IDD).

Indicator	Mean	Median	Mode	Minimum	Maximum	Standard Deviation
B_{10}/T_{10}	0.236	0.238	0.313	0.043	0.345	0.080
Gini	0.334	0.318	0.270	0.244	0.514	0.079
H	0.313	0.301	0.252	0.234	0.543	0.072
I	0.324	0.311	-	0.243	0.529	0.075

Number of countries = 32

Table S36. Correlation coefficients between indicators in 2011 (the OECD IDD).

Indicator	B_{10}/T_{10}	Gini	H	I
B_{10}/T_{10}	1.000			
Gini	-0.970	1.000		
H	-0.979	0.967	1.000	
I	-0.982	0.993	0.991	1.000

Table S37. Descriptive statistics of the B_{10}/T_{10} ratio, the Gini index, H, and income inequality index (I) in 2012 (the OECD IDD).

Indicator	Mean	Median	Mode	Minimum	Maximum	Standard Deviation
B_{10}/T_{10}	0.252	0.256	0.286	0.101	0.357	0.065
Gini	0.315	0.310	0.253	0.249	0.483	0.058
H	0.297	0.288	0.269	0.227	0.436	0.050
I	0.306	0.299	0.247	0.238	0.460	0.054

Number of countries = 31

Table S38. Correlation coefficients between indicators in 2012 (the OECD IDD).

Indicator	B_{10}/T_{10}	Gini	H	I
B_{10}/T_{10}	1.000			
Gini	-0.954	1.000		
H	-0.990	0.973	1.000	
I	-0.977	0.995	0.992	1.000

Table S39. Descriptive statistics of the B_{10}/T_{10} ratio, the Gini index, H, and income inequality index (I) in 2013 (the OECD IDD).

Indicator	Mean	Median	Mode	Minimum	Maximum	Standard Deviation
B_{10}/T_{10}	0.245	0.260	0.294	0.093	0.345	0.070
Gini	0.322	0.304	0.254	0.241	0.494	0.066
H	0.302	0.286	0.264	0.234	0.448	0.056
I	0.313	0.295	-	0.237	0.472	0.061

Number of countries = 32

Table S40. Correlation coefficients between indicators in 2013 (the OECD IDD).

Indicator	B_{10}/T_{10}	Gini	H	I
B_{10}/T_{10}	1.000			
Gini	-0.960	1.000		
H	-0.991	0.977	1.000	
I	-0.979	0.996	0.993	1.000

Table S41. Descriptive statistics of the B_{10}/T_{10} ratio, the Gini index, H, and income inequality index (I) in 2014 (the OECD IDD).

Indicator	Mean	Median	Mode	Minimum	Maximum	Standard Deviation
B_{10}/T_{10}	0.248	0.256	0.323	0.096	0.345	0.064
Gini	0.319	0.303	0.257	0.246	0.485	0.059
H	0.300	0.288	0.246	0.234	0.443	0.050
I	0.309	0.293	0.252	0.243	0.465	0.054

Number of countries = 33

Table S42. Correlation coefficients between indicators in 2014 (the OECD IDD).

Indicator	B_{10}/T_{10}	Gini	H	I
B_{10}/T_{10}	1.000			
Gini	-0.953	1.000		
H	-0.992	0.965	1.000	
I	-0.978	0.993	0.989	1.000

Table S43. Descriptive statistics of the B_{10}/T_{10} ratio, the Gini index, H, and income inequality index (I) in 2015 (the OECD IDD).

Indicator	Mean	Median	Mode	Minimum	Maximum	Standard Deviation
B_{10}/T_{10}	0.240	0.250	0.323	0.039	0.345	0.073
Gini	0.327	0.306	0.360	0.250	0.620	0.075
H	0.308	0.293	0.246	0.234	0.555	0.065
I	0.318	0.300	-	0.248	0.589	0.070

Number of countries = 35

Table S44. Correlation coefficients between indicators in 2015 (the OECD IDD).

Indicator	B_{10}/T_{10}	Gini	H	I
B_{10}/T_{10}	1.000			
Gini	-0.931	1.000		
H	-0.971	0.976	1.000	
I	-0.955	0.995	0.993	1.000

Table S45. Values of parameter α calculated using data on the Gini index, income share held by the top 10%, and income share held by the bottom 10% from the World Bank database between 2005 and 2015.

Year	α	Number of countries	Descriptive statistics of α
2005	0.207	75	Maximum = 0.207 Minimum = 0.197 Mean = 0.201 Standard deviation = 0.003
2006	0.199	75	
2007	0.200	73	
2008	0.203	74	
2009	0.202	79	
2010	0.200	85	
2011	0.199	77	
2012	0.197	78	
2013	0.198	76	
2014	0.199	75	
2015	0.200	75	

Table S46. Values of parameter α calculated using data on the Gini index and the ratio of income shares of the top 10% to income share of the bottom 10% from the OECD IDD between 2005 and 2015.

Year	α	Number of countries	Descriptive statistics of α
2005	0.278	15	Maximum = 0.281 Minimum = 0.271 Mean = 0.276 Standard deviation = 0.003
2006	0.277	17	
2007	0.273	19	
2008	0.273	21	
2009	0.277	23	
2010	0.271	21	
2011	0.281	32	
2012	0.274	31	
2013	0.277	32	
2014	0.275	33	
2015	0.278	35	

Note: $\bar{\alpha} = (\text{average value of } \alpha \text{ from the World Bank database} + \text{average value of } \alpha \text{ from the OECD IDD})/2 = (0.201 + 0.276)/2 = 0.239$.