The Intelligence of Nations. National IQs. Update 2023.

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Abstract

Intelligence is by far the most important human trait. This holds true at the level of individuals as well as at the level of nations. The average cognitive performance of their inhabitants is the most significant determinant of the social, cultural, and economic development of nations. In recent decades, two prolific branches of research have amassed an enormous body of empirical data on national intelligence. On the one hand psychometric intelligence research, on the other hand the international student assessment studies, like PISA, TIMSS & Co. First, it is shown that the two approaches yield almost identical results. Then, a table is derived that contains the most up-to-date and comprehensive estimate of national IQ scores.

Already thousands of years ago, people noticed that ethnic groups differ from each other in their cognitive abilities, even if a scientific concept was still a long way off. From the beginning of scientific psychology more than 150 years ago, intelligence was a central topic (Galton, 1869, 1883). With the advent of psychometric intelligence tests more than 100 years ago, scientifically sound information became available from different parts of the world, but comprehensive systematic research on the cognitive ability of peoples – or more precisely, nations – did not begin until the 1970s. Since then, a revolution in psychometric intelligence research has taken place, and it is inextricably linked to Richard Lynn, who, first on his own and then in cooperation with researchers from around the world, created an empirical database that is second to none.

As to the origin of this phenomenal success story, let's let the author himself have his say. „I began to collect the IQs of nations in the 1970s stimulated by the rapid economic development of Japan and Singapore, and other free market countries in East Asia in the years following the World War Two... I wondered whether there might be differences in intelligence between nations that might contribute to these differences in economic development... During the 1980s I collected data for IQs for a number of countries and published a compilation in Lynn (1991). This set the British IQ at 100 (standard deviation 15), and documented studies showing that European nations also had an average IQ of 100, Northeast Asian nations had an average IQ of 106, South Asians and North African nations had an average of 84, and the sub-Saharan African nations had an average IQ of 70" (Lynn, 2018, p. 256).

In 2002, in collaboration with Tutu Vanhanen, he published the seminal work *IQ and the Wealth of Nations*", in which the authors presented empirical data on the intelligence levels of 81 countries and estimated scores for additional nations so that all 185 nations with populations greater than 50,000 were represented. With this data set, they confirmed Lynn's

earlier findings, particularly that East Asians score higher in intelligence than Europeans and that the level in sub-Saharan Africa is 70. In addition, they showed that the wealth of nations, as measured by per capita income, is closely related to intelligence (in the subsample of 81 countries with psychometric measurement scores, the correlation is 0.73; in the overall sample, it is 0.62). They also showed that national IQ scores correlate exceptionally highly with findings from international student assessment studies, mathematics 0.88, science 0.87.

The book was bitterly attacked from all sides. The accusations ranged from „Measuring national intelligence is meaningless!" to the inevitable screaming of „Racism! Racism!".

In 2006 the collaborative work „*IQ and global inequality*" followed, and in 2012 „*Intelligence. A unifying construct for the social sciences*". These substantially expanded the empirical database and provided impressive support for the previous findings. In addition, the authors demonstrated that intelligence is highly correlated with numerous salient variables across a wide range of domains, such as educational achievement, economic performance, social inequality, poverty, political institutions, health, fertility, sanitation, corruption, crime, liberal vs. conservative attitudes, religiosity, and happiness. But not only that: by additionally including other variables that appeared to be relevant in the respective domain, Lynn and Vanhanen were able to demonstrate that intelligence has much greater explanatory power than the competing variables; often intelligence alone has greater explanatory power than the other variables combined.

In 2019, Lynn, in collaboration with David Becker, published „*The intelligence of nations*". The database was again considerably expanded and the estimates further refined. To complement the book, the NIQ database, maintained primarily by David Becker, was created and is freely available on the Internet at https://viewoniq.org/ (Becker, 2019). Based on the expanded database, the previous findings could be confirmed in all respects and supplemented with new ones.

Early on, some researchers recognized the fruitfulness of Lynn's approach; over the years, more and more did, and in an impressive collaboration, a network of researchers from around the world emerged, yielding a wealth of scientific findings. Overall, the line of research established by Lynn has demonstrated in an unprecedented way that intelligence is by far the most important variable in humans.

- Far and wide, there is not a single variable in sight that is independent of intelligence and has nearly as much explanatory power in so many different domains as intelligence.

Alongside the psychometric approach, another powerful branch of research unfolded that also yielded a wealth of information about the cognitive ability of nations. We are talking, of course, about the international student assessment studies such as PISA, TIMSS & Co. There, students of a clearly defined age group are tested at certain intervals, for example, in the case of PISA, the 15-year-olds, and in the case of TIMSS, students in the 4th and 8th grades. These studies have the advantage of having large samples; and because standardized test procedures are used, achievement trends can be tracked over time. In the early days, the studies were conducted almost exclusively in advanced industrialized nations. Over the years, more and more countries participated, but many from the lower intelligence range are still missing. There are, however, some regional studies, for example, from West Africa, Southeast Africa, Latin

America, and South Asia. In each case, the organizers have developed their own tests adapted to the much lower performance levels. Under certain assumptions, the results can be converted to a PISA scale, for example, and this in turn can be easily transformed into an IQ scale.

The key point is:

- Student achievement tests are not the same as psychometric intelligence tests, but of course student achievement depends to a large extent on intelligence.

Richard Lynn and other intelligence researchers have recognized this from the beginning and have integrated the valuable treasure of the neighboring discipline into their own database. In sharp contrast, educational researchers until today refuse to take note of psychometric intelligence research. The ignorance goes so far that the word intelligence does not appear at all in official reports or in countless research articles, and the name Richard Lynn is absolutely taboo. However, as we will see, political correctness does not change empirical facts.

Recently, Russel T. Warne has presented a database that presents the findings of the two research traditions together (Warne, 2022). This is the most up-to-date and most comprehensive compilation of the intelligence of nations. The findings of psychometric intelligence research were taken from David Becker's NIQ database. Three estimates were considered: the national IQs according to Lynn and Vanhanen (2012), according to Heiner Rindermann (2018), and according to David Becker (2018). We refer to them hereafter as LV12, R, and NIQB. Two datasets were considered from international student assessment studies: the World Bank's HLO database (HLO = Harmonized Learning Outcomes; Angrist et al. 2021) and the estimates of Gust, Hanushek, and Woessmann (2022). We refer to them hereafter as HLO and GHW.

The five sets are the basis of the following analysis. We have made only three minor modifications. In the student assessment studies, the scores for Cuba are 101 (HLO) and 104 (GHW) and for Pakistan 64 (HLO) and 62 (GHW). This would make Cuba dwarf the entire Western world and Pakistan among the very least intelligent countries on earth. The data collection may well have been accurate, but there is no way it could have been representative samples. That is something like measuring the average height of young adult males and reporting an average of 1.96 meters for Cuba and an average of 1.56 meters for Pakistan. That may be correct for the Cuban national basketball team and the Pakistan national polo team, but it has nothing to do with the national average. The same is true for the score of 100 for Cambodia in the NIQB. Cambodia had participated in the special PISA for Development Programme and performed disastrously (OECD, 2018). For example, 92.5 percent of students have not even been able to meet the minimum requirement in mathematics. The nonsensical values were deleted, of course. One wonders how they could survive in the corresponding data sets.

Table 1 shows the product-moment correlation between the five data sets. The right column shows the number of nations.

Table 1. Correlation between estimates of national IQs and number of nations.

	LV12	R	HLO	GHW	N
NIQB	0,87	0,88	0,84	0,89	200
LV12		0,98	0,87	0,92	199
R			0,90	0,93	199
HLO				0,93	161
GHW					157

The correlations are all very high. David Becker's NIQB shows the lowest commonality. Here the values range from 0.84 to 0.89. But even with the lowest agreement (NIQB and HLO), the common variance is 70.8 percent. Heiner Rindermann's R shows the greatest commonality. At 0.98, it is almost congruent with Lynn and Vanhanen's 2012 data set. Of particular note is the high agreement with the student assessment values. The correlation with the HLO is 0.90. The correlation with the GHW is even 0.93, which is as high as the agreement between the two student assessment measures. Furthermore, the correlation between LV12 and GHW is only 0.01 smaller as well. Gust, Hanushek, and Woessmann specifically aimed to overcome some shortcomings of the HLO. This brings the GHW even closer to the two estimates from psychometric intelligence research.

Overall, it is clear:

- Psychometric intelligence tests and the international student assessment studies essentially measure the same latent variable, namely intelligence.

Intelligence researchers have known the facts for many years. With the data from millions of students from all over the world, the student assessment studies have provided empirical proof that the findings of psychometric intelligence research are watertight. Thus they take the wind out of the sails of all critics (among whom education researchers themselves belong!). From the very beginning, intelligence research has been open to the neighboring discipline and has happily integrated its findings – education researchers still refuse to take note of the outstanding achievements of psychometric intelligence research, let alone acknowledge them. Readers are left to draw their own conclusions.

Due to the very high correlations, an extremely reliable measure of national intelligence can be constructed. For this, we use the median (which correlates with the arithmetic mean at 0.99).

Table 2 shows the values for 201 nations. The left part is arranged in descending order of IQ, the right alphabetically.

Table 2. National IQs.

Nation	IQ	IQ	Nation
Singapore	107	72	Afghanistan

China	106	82	Albania
Hong Kong	105	80	Algeria
Korea, South	105	95	Andorra
Taiwan	105	70	Angola
Japan	104	71	Antigua and Barbuda
Korea, North	104	87	Argentina
Finland	101	91	Armenia
Netherlands	101	99	Australia
Canada	101	99	Austria
Estonia	101	85	Azerbaijan
Liechtenstein	101	84	Bahamas
Switzerland	100	87	Bahrain
United Kingdom	100	74	Bangladesh
Macau	100	80	Barbados
Germany	100	96	Belarus
New Zealand	100	100	Belgium
Sweden	100	72	Belize
Belgium	100	71	Benin
Australia	99	90	Bermuda
Czechia	99	78	Bhutan
Austria	99	82	Bolivia
Slovenia	99	89	Bosnia, Herzegovina
Denmark	99	77	Botswana
Hungary	98	84	Brazil
Iceland	98	88	Brunei
France	98	93	Bulgaria
United States	98	70	Burkina Faso
Slovakia	98	72	Burundi
Ireland	98	73	Cabo Verde
Poland	97	87	Cambodia
Latvia	97	64	Cameroon
Norway	97	101	Canada
Croatia	97	82	Cayman Islands
Russia	97	64	Central African Rep.
Spain	97	66	Chad
Luxembourg	97	89	Chile
Italy	96	106	China
Lithuania	96	83	Colombia
Belarus	96	75	Comoros
Andorra	95	66	Congo, Dem. Rep.
Portugal	94	72	Congo, Rep.

Israel	94	88	Cook Islands
Malta	94	87	Costa Rica
Vietnam	94	70	Cote d'Ivoire
Ukraine	94	97	Croatia
Cyprus	93	84	Cuba
Bulgaria	93	93	Cyprus
Greece	93	99	Czechia
Serbia	91	99	Denmark
Mongolia	91	72	Djibouti
Greenland	91	66	Dominica
Armenia	91	80	Dominican Republic
Malaysia	91	83	Ecuador
Moldova	91	78	Egypt
Romania	90	78	El Salvador
Bermuda	90	69	Equatorial Guinea
Turkey	89	74	Eritrea
Thailand	89	101	Estonia
United Arab Emirates	89	69	Ethiopia
Suriname	89	84	Fiji
Chile	89	101	Finland
Uruguay	89	98	France
Bosnia, Herzegovina	89	69	Gabon
Cook Islands	88	62	Gambia
Brunei	88	83	Gaza Strip
Mauritius	88	100	Germany
Trinidad and Tobago	88	87	Georgia
Argentina	87	64	Ghana
Mexico	87	93	Greece
Samoa	87	91	Greenland
Costa Rica	87	74	Grenada
Cambodia	87	79	Guatemala
Kazakhstan	87	65	Guinea
Bahrain	87	68	Guinea-Bissau
Georgia	87	79	Guyana
Jordan	87	67	Haiti
Montenegro	86	80	Honduras
Iraq	86	105	Hong Kong
Netherlands Antilles	86	98	Hungary
Iran	86	98	Iceland
Macedonia	85	77	India
Myanmar	85	83	Indonesia

New Caledonia	85	86	Iran
Azerbaijan	85	86	Iraq
Tonga	85	98	Ireland
Turks and Caicos Isl.	84	94	Israel
Cuba	84	96	Italy
Fiji	84	75	Jamaica
Brazil	84	104	Japan
Bahamas	84	87	Jordan
Marshall Islands	84	87	Kazakhstan
Micronesia	84	76	Kenya
Turkmenistan	84	83	Kiribati
Seychelles	83	104	Korea, North
Indonesia	83	105	Korea, South
Oman	83	79	Kosovo
Venezuela	83	80	Kuwait
Laos	83	76	Kyrgyzstan
Pakistan	83	83	Laos
Colombia	83	97	Latvia
St Helena, Asc., Tristan	83	83	Lebanon
Kiribati	83	70	Lesotho
Gaza Strip	83	65	Liberia
Lebanon	83	83	Libya
Libya	83	101	Liechtenstein
Ecuador	83	96	Lithuania
Vanuatu	82	97	Luxembourg
Uzbekistan	82	100	Macau
Tajikistan	82	85	Macedonia
Paraguay	82	77	Madagascar
Albania	82	65	Malawi
Cayman Islands	82	91	Malaysia
Syria	82	81	Maldives
Timor-Leste	82	67	Mali
Puerto Rico	82	94	Malta
Bolivia	82	81	Mariana Islands
Peru	82	84	Marshall Islands
Solomon Islands	81	69	Mauritania
Nicaragua	81	88	Mauritius
Tunisia	81	87	Mexico
Mariana Islands	81	84	Micronesia
Qatar	81	91	Moldova
Maldives	81	81	Mongolia

Maldives	81	91	Mongolia
Kuwait	80	86	Montenegro
Philippines	80	75	Morocco
Honduras	80	72	Mozambique
Barbados	80	85	Myanmar
Panama	80	68	Namibia
Saudi Arabia	80	73	Nepal
Dominican Republic	80	101	Netherlands
Algeria	80	86	Netherlands Antilles
Kosovo	79	85	New Caledonia
Guyana	79	100	New Zealand
Guatemala	79	81	Nicaragua
Sri Lanka	79	66	Niger
Papua New Guinea	79	69	Nigeria
Egypt	78	97	Norway
Tuvalu	78	83	Oman
Bhutan	78	83	Pakistan
El Salvador	78	80	Panama
Madagascar	77	79	Papua New Guinea
Botswana	77	82	Paraguay
Virgin Islands	77	82	Peru
India	77	80	Philippines
Kyrgyzstan	76	97	Poland
Sudan	76	94	Portugal
Kenya	76	82	Puerto Rico
Swaziland	76	81	Qatar
Morocco	75	90	Romania
Comoros	75	97	Russia
Jamaica	75	70	Rwanda
Tanzania	75	83	St Helena, Asc., Tristan
Bangladesh	74	71	Saint Kitts and Nevis
Eritrea	74	62	Saint Lucia
Zimbabwe	74	70	Saint Vincent, Grenad.
Grenada	74	87	Samoa
Nepal	73	65	Sao Tome and Principe
Cabo Verde	73	80	Saudi Arabia
Mozambique	72	70	Senegal
Burundi	72	91	Serbia
Uganda	72	83	Seychelles
Belize	72	62	Sierra Leone
Congo, Rep.	72	107	Singapore

South Africa	72	98	Slovakia
Afghanistan	72	99	Slovenia
Djibouti	72	81	Solomon Islands
Benin	71	68	Somalia
Antigua and Barbuda	71	72	South Africa
Saint Kitts and Nevis	71	62	South Sudan
Rwanda	70	97	Spain
Burkina Faso	70	79	Sri Lanka
Senegal	70	76	Sudan
Lesotho	70	89	Suriname
Angola	70	76	Swaziland
Cote d'Ivoire	70	100	Sweden
Saint Vincent, Grenad.	70	100	Switzerland
Equatorial Guinea	69	82	Syria
Gabon	69	105	Taiwan
Zambia	69	82	Tajikistan
Mauritania	69	75	Tanzania
Nigeria	69	89	Thailand
Ethiopia	69	82	Timor-Leste
Somalia	68	68	Togo
Namibia	68	85	Tonga
Yemen	68	88	Trinidad and Tobago
Guinea-Bissau	68	81	Tunisia
Togo	68	89	Turkey
Mali	67	84	Turkmenistan
Haiti	67	84	Turks and Caicos Isl.
Congo, Dem. Rep.	66	78	Tuvalu
Niger	66	72	Uganda
Dominica	66	94	Ukraine
Chad	66	89	United Arab Emirates
Sao Tome and Principe	65	100	United Kingdom
Guinea	65	98	United States
Liberia	65	89	Uruguay
Malawi	65	82	Uzbekistan
Ghana	64	82	Vanuatu
Cameroon	64	83	Venezuela
Central African Rep.	64	94	Vietnam
Sierra Leone	62	77	Virgin Islands
South Sudan	62	68	Yemen
Gambia	62	69	Zambia
Saint Lucia	62	74	Zimbabwe

Table 2 probably contains the best estimate of countries' cognitive ability, but of course the values are subject to some error. For the countries in the upper range of intelligence, very solid data are available; in the middle range, data quality is lower; and in the lower range, the estimates may be quite crude; but it can be assumed with high confidence that the true figures are not much different.

The table shows national IQs, that is, the average intelligence level of countries. Within each country there are huge differences. Even in the most intelligent countries you can find very unintelligent people and in the most unintelligent countries there are also intelligent people. In both cases, however, these make up only a very small proportion of the total population.

The cognitive performance levels of nations are not carved in stone. On the contrary. One of the most significant discoveries in the social sciences is the fact that phenotypic intelligence increased massively in the 20th century. This phenomenon, known as the *Flynn effect*, was first noticed in advanced industrialized nations, but it soon became clear that it is a global phenomenon. There is evidence that the trend in advanced industrialized nations is weakening or stagnating, or even turning negative. In large parts of the world, however, there is plenty of room for improvement, and it is to be expected that the nations of this world will move closer together in the course of this century.

References

- Angrist, N., Djankov, S., Goldberg, P.K. and Patrinos, H.A. (2021). Measuring human capital using global learning data. *Nature*, https://dx.doi.org/10.1038/s41586-021-03323-7, http://documents.worldbank.org/curated/en/540801550153933986/Measuring-Human-Capital

- Becker, D. (2019). *The NIQ-dataset (V1.3.2)*. Chemnitz, Germany. https://viewoniq.org/

- Lynn, R. and Becker, D. (2019). *The intelligence of nations*. London: Ulster Institute for Social Research.

- Galton, F. (1869). *Hereditary genius. An inquiry into its laws and consequences*. London: Macmillan. (Reproduction at Forgotten Books, www.forgottenbooks.org).

- Galton, F. (1883). *Inquiry into human faculty and its development*. London: Macmillan. (Reproduction at Elibron Classics. www.elibron.com).

- Gust, S., Hanushek, E.A. and Woessmann, L. (2022). *Global universal basic skills: Current deficits and implications for world development*. Working Paper 30566. Massachusetts, MA: National Bureau of Economic Research. http://www.nber.org/papers/w30566

- Lynn, R. (1991). Race differences in intelligence: A global perspective. *The Mankind Quarterly*, 31, 255-297.

- Lynn R. (2018). The intelligence of nations. In Sternberg, R.J. (Ed.). *The nature of human intelligence*. Cambridge: Cambridge University Press, p. 256-269.

- Lynn, R. and Vanhanen, T. (2002). *IQ and the wealth of nations*. Westport, Connecticut: Praeger.

- Lynn, R. and Vanhanen, T. (2006). *IQ and global inequality*. Augusta, Georgia: Washington Summit Publishers.

- Lynn, R. and Vanhanen, T. (2012). *Intelligence. A unifying construct for the social sciences* London: Ulster Institute for Social Research.

- OECD (2018). *PISA for Development. Results in focus* PISA in Focus 2018/91

- Warne, R.T. (2022). National mean IQ estimates: Validity, data quality, and recommendations. *Evolutionary Psychological Science*. 19. Dec. 2022. Databank: https://doi.org/10.1007/s40806-022-00351-y