

NATIONAL WEALTH AND INTELLIGENCE

IQ and the Wealth of Nations

Richard Lynn and Tatu Vanhanen

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Reviewed by Edward M. Miller

The thesis of Richard Lynn and Tatu Vanhanen's *IQ and the Wealth of Nations* is that differences between nations in income are basically due to differences in their populations' intelligence. Countries with more intelligent populations are better able to master complex modern technologies and hence enjoy higher standards of living. While this theory has probably occurred to others, this is the first time it has been rigorously developed and put to a quantitative test.

The heart of the book is the demonstration that national IQ and national incomes are correlated. Lynn is well suited for this exercise because he is probably the leading expert on international comparisons of IQ. In the course of other work, he has accumulated a massive database of studies in which IQ tests were given in different countries. Because there are different tests, scored in various ways, an appreciable amount of work had to be done to make all of the scores compatible. Since test scores appear to be increasing over time (for reasons that are unknown, although Lynn has speculated that improved nutrition is a major part of the explanation), scores had to be adjusted to provide for this factor as well. A natural question is whether it is even meaningful to talk about an average national IQ. By comparing cases in which a minimum of two tests had been given in the same nation, Lynn demonstrates that similar scores were achieved, thus showing that the reliability is sufficient to make international comparisons.

The book's most important finding is that there was a correlation in 1998 of 0.733 between real gross domestic product and the national IQ calculated over eighty-one nations. The gross domestic products here have been calculated using published exchange rates. Since some think it is more accurate to compare national incomes in terms of what the incomes will actually purchase, results are also presented and compared for gross domestic products using purchasing power parity. For sixty-five countries with suitable data in 1998, the correlation was 0.775.

Lynn and Vanhanen also run and plot regression analyses of national product versus national IQ. IQ explains part of the differences in national product, but only part. The natural question is what explains the part of national income that is not explained by the level of national intelligence, the residuals. Presumably, it is some factor specific to one or more countries. A few of the largest positive residuals can be explained for 1998. Equatorial Guinea has such a low measured IQ that the regression equation predicts a negative national product. Since this is impossible, it has a large positive residual. Qatar has an income well above expectation; this is probably explained by income from oil production. Barbados has a positive residual; this may also be explained by natural resources (Barbados is a well-located tropical island), which makes possible enough well-paying jobs to raise its income above what it would otherwise be.

In a later discussion, Kuwait, Bahrain, Brunei, Gabon, and the United Arab Emirates are added to Qatar as countries whose high income is explained by oil. Botswana benefits from diamonds. The Bahamas, Antigua and Barbados, Cyprus, Malta, and St. Kitts and Nevis appear to be other island states for which tourism (related to natural resources) raises income.

Although the authors point out (correctly) that foreigners provide the expertise for the tourism and petroleum industries, standard economic theory provides that countries with high ratios of natural resources to population are expected to have higher per capita national products.

Standard economic theory has always recognized that national income is influenced by the quantity and quality of natural resources. Possession of oil is probably the most important of such natural resources. It would appear an even more important factor, except that IQ data are lacking for most of the world's thinly populated oil-producing countries. Although less important in the world economy, small islands with good beaches (an island can have a high ratio of beaches, coral reefs, and picturesque ports to population), distinct cultures, and the possibility of exploiting their independent status to become an international financial center are provided for in mainstream theory. A relatively small number of tourist-related and financial service jobs can raise national income appreciably in a small country. Of course, the percentage of the world's population on such islands is small.

Similar analyses are provided for historical data on national incomes along with attempts to explain the outliers. For instance in 1900 Argentina, Australia, and New Zealand had large positive residuals, which the authors attribute to these countries efficiency of agriculture and livestock production. An economist might note their large amounts of good farmland per capita and predict that this would raise their income above what would be justified by their labor inputs alone. When this higher income was divided by the population, their per capita incomes would be found to be above average.

Many of the positive and negative residuals in the historical data can be explained by whether the “industrial revolution” had reached them yet. For historical reasons industrialization began first in northwestern Europe, then spread slowly across the rest of the world. The largest negative residuals in earlier data included China, Italy, Japan, South Korea, Russia, Taiwan, and Thailand, which the industrial revolution had not yet reached.

Similar attempts are made to explain the deviations for 1930 and 1960, but the accounts seem a little ad hoc and thin. Perhaps the problem is that neither of the authors is an economist, much less familiar with the large literature on economic development. It is to be hoped, however, that now that the intelligence hypothesis has been put forth along with sufficient data to make it plausible, specialist researchers with a knowledge of the many factors the authors have discussed, including the historical peculiarities of regions and countries, will join the fray and specify the other factors that have played a role in such deviations.

Let us return to understanding today’s national incomes. South Africa has a large positive residual; it is a mixed-race country with the key decision makers and business leaders drawn from the white population. This case suggests an important qualification. Perhaps what is important is not so much the average intelligence (which is the variable used) as the fraction of the population that is of high intelligence, and thus able to organize industry and trade. In a country with a homogeneous population, the fraction with high ability can be calculated from the mean IQ and the standard deviation (or just from the mean if one assumes the standard deviations are typical). In a country with several distinct populations, however, the number of very able individuals will exceed what would otherwise be calculated from the average IQ. South Africa, with its large white minority in a predominantly black population, would be expected to have more individuals in the IQ ranges needed to understand modern technology than would have been predicted from its average IQ. This qualification could be important for a number of other countries.

More countries with negative residuals may be explained by special factors. Samoa and Tonga are small and isolated, which, it is suggested, limits their income (presumably if they had been close to North America or Europe they might have been more like Barbados and been above the regression line). Iraq suffers from the sanctions imposed after the Gulf War. Uruguay and Peru have

lower than expected incomes, which is attributed to their high inflation rates. The authors note that most of Latin America has negative residuals. This suggests to them (and other authors) certain cultural factors.

Several Asian countries had appreciably negative residuals. The authors suggest the problem in the Philippines is related to ethnic strife (which they also give as a possible reason for poor performance in South American Surinam). They also suggest that shortfalls in Indonesia and Thailand may be related to lingering effects of the Asian economic crisis. Taiwan and South Korea are other Asian countries whose incomes are less than would be predicted. Although these countries are considered among the "Asian Tigers" because of their economic success, their populations do so well on intelligence tests that, according to the authors' thesis, these two countries ought to have performed even better economically.

The largest group of nations with positive residuals are technologically highly developed, Western, and East Asian: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Ireland, Norway, Singapore, Switzerland, and the United States, which all have market economies.

Of the countries whose incomes are appreciably lower than would be expected from their levels of intelligence, six are former socialist countries (Bulgaria, China, Hungary, Poland, Romania, and Russia). The residuals are negative for all former or current communist countries. The authors suggest that the low incomes of these countries are a result of their former political and economic systems.

Weighing all the residuals, positive and negative, it appears that the type of economic system has been an important factor: nations that have had free economic systems are above the regression line, and communist countries, both past and present, are below it.

Clearly, the intelligence-based theory of this book explains only part of the differences between nations in incomes. One plausible explanation is economic and political structure. The book provides data on indices of economic freedom (for 1997) and democracy (for 1998) for 122 nations. As noted, the low incomes of the communist and formerly communist countries suggest that economic freedom may be important.

Actually, economic freedom appears a little more powerful than IQ. For 1998 GNP per capita, the correlation with national IQ is 0.645, while it is 0.656 for economic freedom. For democracy the correlation is a little less at 0.542.

One of the authors, Vanhanen, had previously worked on measuring democracy and provided the Index of Democratization. Together, economic freedom and democracy can explain as much of the variation in per capita incomes as national IQ. Unfortunately, economic freedom, democracy, and national IQ are all correlated with each other, making it difficult to untangle the different variables statistically.

One quantitative experiment is tried in *IQ and the Wealth of Nations*. Measures of economic freedom (the extent to which there is a market economy) and democracy are introduced into an equation along with national IQ.

For real gross domestic product per capita for 1998, the percent of the variance explained by IQ alone is 51%. Adding the measure of economic freedom raises this to 62%. In contrast, IQ plus the Index of Democratization raises the percent of variance explained only from 51% to 52%, while IQ, economic freedom, and democratization explain 62% of the variance.

It seems clear that economic freedom, when added to national IQ, makes an important contribution, but that democratization adds little. One of the authors' figures (8.5) shows that the economic freedom measure is much more important for the countries with IQ over 90. The role of the type of economic system has been noted above.

Although the subject of the book under review is IQ and national wealth, the evidence shows clearly the importance of the type of economic system. Socialist command economies have been much less favorable for economic development than have market economies. This having been established by other authors, the contribution of *IQ and the Wealth of Nations* lies in its demonstrating the powerful explanatory power of a single variable, the IQ of the country's population.

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