

A Note on the Relevance of the National Average IQ

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On August 19 2003, the Bangkok Post reported that the average IQ of Thai children had fallen from 92.1 in 1996 to 89 in 2001. Thai citizens were alarmed by these statistics. Their concern, as voiced in the media, subsumes a relationship between IQ and individual achievement and between national average IQ and national economic performance. There is some question as to whether these relationships actually exist. As to the first relationship, we may turn to Hernstein and Murray. In their book "The Bell Curve" they offer extensive data and very clever analyses to present a convincing argument that, on average, children who score high on IQ tests do better in later life.

The second relationship is not as well established. The only hard evidence comes from the Lynn-Vanhannen study. In the Summer 2001 issue of "Mankind Quarterly" Lynn and Vanhannen presented a simple regression of per capita GDP against average IQ. Their data are shown below in graphical form. They constitute a cross sectional study of 81 countries at a single point in time, and they appear to support the assumed positive relationship between average IQ and per capita GDP.

However, a closer look at the data reveals several weaknesses in the model. First consider the so-called "outliers". Qatar, with a national average IQ of 80 generated a per capita GDP of over \$20,000 possibly by virtue of its natural endowment of petroleum. On the other extreme we have China with a very high average IQ of 100 but a per capita GDP lower than that of Thailand. China is a transitional economy and is still recovering from her Communist past. The existence of these outliers suggests that the authors missed at least two important variables.

They may have missed other variables. If one draws a horizontal line at a per capita GDP of \$10,000 and a vertical line at a national average IQ of 90, one finds that the data become segregated in the most part along racial and geographical lines. In the "low IQ, low GDP" quadrant we find mostly countries in sub-Saharan Africa. In the "low IQ, high GDP" quadrant we find nations with natural endowments. In the "high

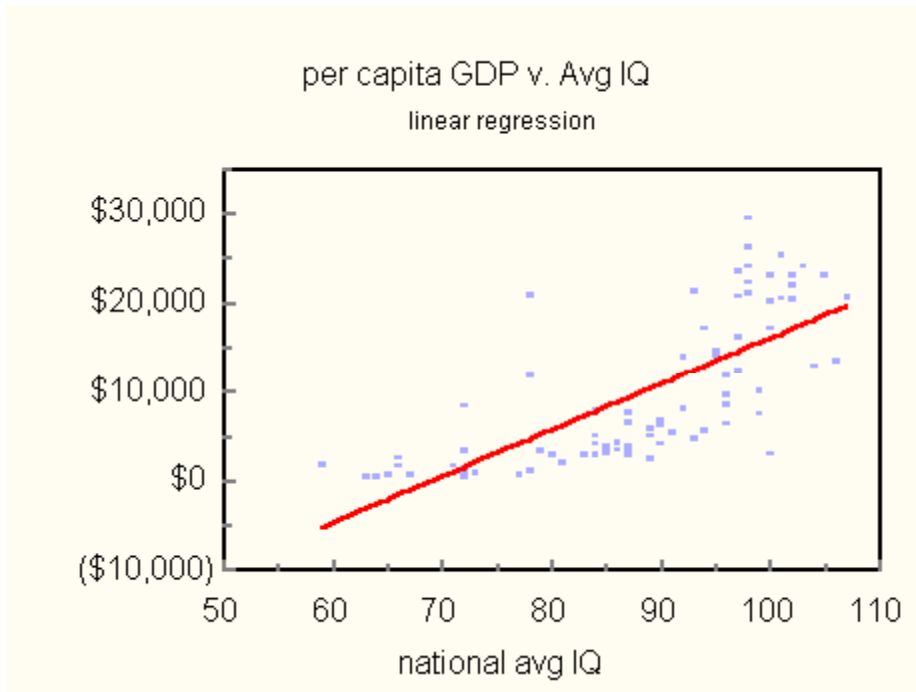
IQ, high GDP” category we find mostly industrialized nations in North America, Europe and East Asia. And in the “high IQ, low GDP” quadrant we find mostly transitional economies and developing countries in south and Southeast Asia. Within each group the correlation between national average IQ and per capita GDP completely disappears. Viewed in this way, the data suggest that the Lynn-Vanhannen model is mis-specified and that the reported correlation coefficient is a spurious statistic.

Even if we accept the Lynn-Vanhannen correlation there is still a question as to what it means in terms of causality. It may mean that nations with high average IQ achieve higher per capita GDP by virtue of their IQ. It could also mean that richer nations have the means to effect higher IQ in their children. Finally, it could mean that other perhaps genetic or cultural variables that cause high IQ are also responsible for causing those people to achieve high per capita GDP

In any case, the Lynn-Vanhannen model does not apply directly to the case of diminishing national average IQ in Thailand. The trend in national average IQ has not been addressed at all by these authors. Their model applies only to the cross-sectional data at a single point in time. It may be used to compare different countries at the same point in time but not the same country at different points in time.

Incidentally, the loss in national average IQ from 1996 to 2001 was reported to be 3.1 IQ points or 0.62 IQ points per year. The loss appears more severe if one takes the so-called “Flynn Effect” into account. During the same period, the average IQ of the world has increased by 0.3 IQ points per year. Thailand’s IQ loss net of the Flynn Effect is therefore 0.92 IQ points per year or 4.6 IQ points during the 5-year period.

Exactly what this loss means to Thailand as a nation is unclear. National average IQ may be a causal agent that increases GDP and enhances our quality of life; or it may be an index that measures the rise and fall in the quality of life; or IQ may be important to us in a way that is not captured by the national average. There is also the possibility that IQ is relevant only at the individual level if at all.



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