

The Cognitive Competences of Immigrants and Natives across the World: An Analysis of Gaps, Causes and Impact

Abstract

Immigration, immigration policies and education of immigrants alter competence levels of nations. We analysed their effects using PISA, TIMSS and PIRLS data (1995 to 2012, $N_c=93$ nations) for natives' and immigrants' competences, competence gaps and their population proportions.

The mean native-immigrant gap is equivalent to 4.71 IQ points.

The correlation between native and migrant IQ is $r=.92$ (see Figure 1).

Figure 2 shows large differences across countries in gaps ranging from around + 12 to -10 IQ points. The largest immigrant-based 'brain gains' are observed for Arabian oil-based economies, and the largest 'brain losses' for Central Europe.

Figure 3 shows how national educational quality may reduce gaps. A one standard deviation increase in school quality represents a closing of around 1 IQ point in the native-immigrant gap, corresponding to 738 US\$ of GNI per IQ-score, capita and year.

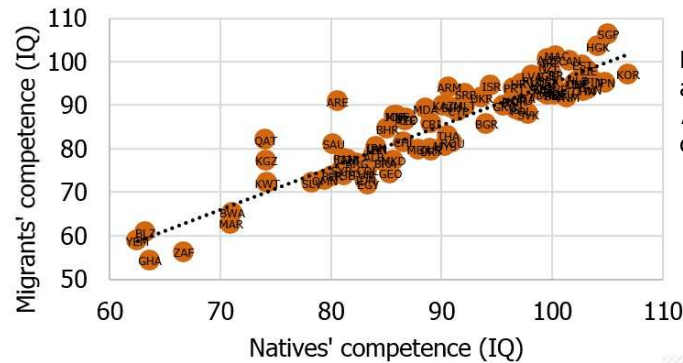


Fig. 1 Scatter plot with native and immigrant IQ ($r=.92$; $N_c=93$) The ISO 3166 Alpha-3 codes for countries are used.

Fig. 2. Map with natives' and immigrants' differences in cognitive competence means ($N_c=93$). Black favours natives, grey small differences, white differences below 2 and light blue to dark blue favours immigrants.



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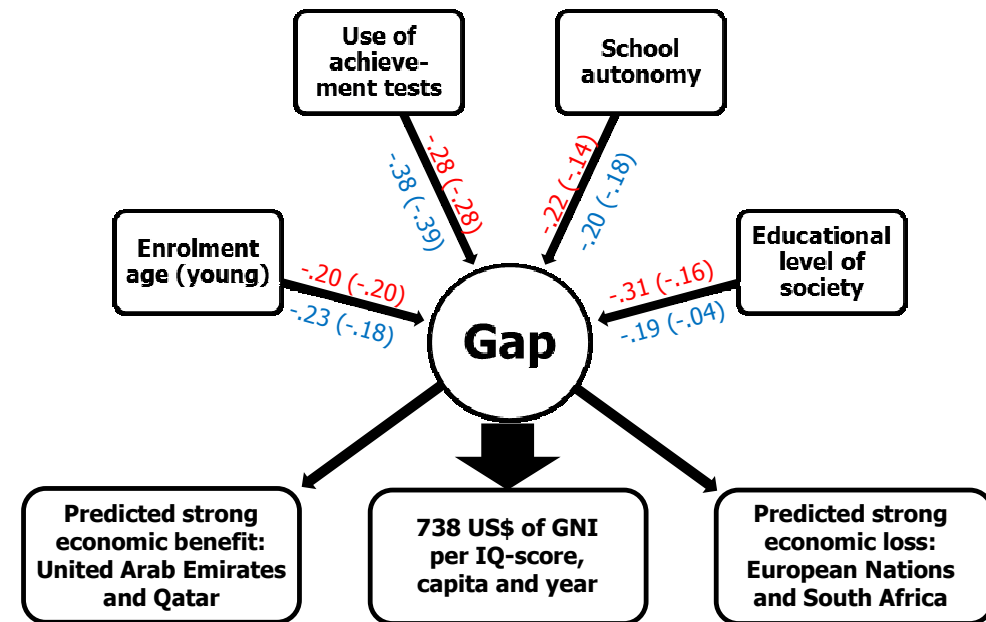
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Fig. 3 Path model of β -coefficients (controlled for general national ability level as second predictor) and bivariate correlations (in parentheses) from four selected regressions, for all nations (red) with data and for European and Western nations (blue) separately, criterion (positive) native-immigrant differences.



Note: Benefits and losses depend on the direction of the gap (native IQ, migrant IQ), its size and the percentage of immigrants.

Additional reading:

Rindermann, H. & Thompson, J. (in press). The cognitive competence of immigrants and native students across the world: An analysis of gaps, possible causes and impact. *Journal of Biosocial Science*.