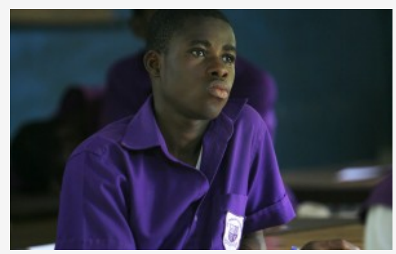
STUDY SUMMARY

The Economic Consequences of Brain Drain from Ghana, Tonga, Micronesia, Papua New Guinea, and New Zealand

Does the migration of highly educated people from developing countries hurt local economies, decimating their human capital and fiscal revenue? Or does a highly educated diaspora serve to develop economies through remittances, trade, foreign direct investment and knowledge transfers? Researchers tracked academic high achievers from five countries and found large positive benefits of high-skilled migration for citizens of high emigration countries. The largest benefits were to the migrants themselves, who benefit through massive gains in income and through greater human capital. Meanwhile, while most high-skilled migrants from poorer countries remitted, involvement in trade and foreign direct investment was rare. Fiscal costs to the countries of origin varied widely but were much less than the benefits to the migrants themselves.



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PROGRAM AREA
Education

TOPICS
Education Quality, Migration

TIMELINE
2007-2009

Policy Issue

The number of highly educated emigrants from developing countries living in developed countries doubled between 1990 and 2000, and has continued to grow over the past decade.[1] As policymakers in high emigration countries watch the departure of many of their most talented citizens, they both worry about the potential costs of this "brain drain" for development in their country and wonder about the possibilities offered by having a diaspora of the elite who can send remittances home, and facilitate trade, investment and knowledge exchanges. What has been sorely lacking is empirical evidence on how migration impacts the countries facing high rates of high-skilled emigration. The goal of this research was to provide the first systematic microeconomic empirical evidence on what the economic costs and benefits appear to be in practice.

[Note: IPA managed the research for this study in Ghana only.]

Evaluation Context

The study originated in five countries, which represent a range of the types of countries experiencing very high rates of high-skilled emigration: Tonga, Micronesia, Papua New Guinea, Ghana and New Zealand. Tonga and the Federated States of Micronesia are small island states, which have the highest brain drain rates in the world.[2] Papua New Guinea, a larger developing country in the Pacific, has much lower overall levels of migration but also a high brain drain rate. Ghana was chosen as one of the best-known examples of a Sub-Saharan African country grappling with high brain drain, and New Zealand as the Organization for Economic Cooperation and Development (OECD) country with the highest brain drain rate.

Details of the Intervention

To measure quantify for the first time a number of the key economic effects of high-skilled emigration, researchers pursued an innovative survey methodology. First, they identified a well-defined target sample frame of interest – individuals who were the top academic performers in the country at the time of their high school graduation – and then tracked down these individuals wherever they were currently living in the world and surveyed them. In each country the research team assembled a sample of the top academic achievers in the country, for individuals graduating high school between 1976 and 2004, using a mixture of government and school records.

The total sample frame consisted of 4,131 individuals from the five countries. Surveyors then tracked the individuals to the countries to which they migrated. Altogether this involved collecting data on individuals living in 45 different countries, and asking them detailed questions about their migration and educational histories, and the channels through which they interact with their home countries while abroad. Surveyors were able to interview 1,240 (30 percent). Researchers then formed counterfactuals for what these individuals would be doing at home through also surveying academically similar non-migrants and return migrants, and through direct elicitation. The survey efforts began with the Tongan sample in late 2007, and finished with the Ghanaian sample in late 2009. IPA managed the research for the study in Ghana.

Results and Policy Lessons

Results showed large positive benefits of high-skilled migration for citizens of high emigration countries. The largest benefits are to the migrants themselves, who benefit through massive gains in income and through greater human capital. Researchers estimate that the best and the brightest stand to gain $40,000–75,000 per year from emigrating from the five countries studied.

High-skilled individuals from poorer countries typically remit but it is rare for them to engage in trade or FDI. Adding together the monetary and goods remittances gives a total impact of $5,000 annual remittances for Ghanaians, $2,100 for Micronesians, $625 for New Zealanders (monetary remittances data only), $7,232 for Papua New Guineans and $4,300 for Tongans. These amounts are significant relative to the per capita incomes of the developing countries, with Ghanaian and Papua New Guinean remittances equivalent to about seven times per capita GDP. Nevertheless, the amounts remitted are only a fraction of what the migrants would have been earning at home.

The migrants engage in plenty of knowledge transfer in terms of helping others to learn about study and work opportunities abroad but do not frequently advise their local governments or businesses in their home countries. Return migration is common and researchers find return migrants more likely to be engaging in knowledge transfer than non-migrants but not to have higher levels of productivity.

The main cost researchers measured was the fiscal cost of emigration. This cost varies significantly depending on the progressivity of the tax system and size of government expenditure, with minimal tax implications in Tonga and Micronesia and possible fiscal losses from high-skilled emigration of $6,300 per high-skilled migrant per year for Ghana, $10,000 for New Zealand and $16,900 for Papua New Guinea. The measured benefits greatly exceed the measured costs, however, suggesting that on balance high-skilled migration is improving the living standards of individuals born in countries with high levels of emigration.

Sources

1. Docquier, Frédéric, and Addeslam Marfouk. "International migration by educational attainment, 1990-2000." (2006).

2. Beine, Michel, Frederic Docquier, and Maurice Schiff. *Brain Drain and its Determinants: A Major Issue for small states*. No. 3398. IZA Discussion Papers, 2008.

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