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SKILLED MIGRATION AND BRAIN DRAIN

Satish Chand*

ABSTRACT

This paper discusses the issue as to whether or not emigration depletes the stock of skilled workers in the country from which workers emigrate. Some proponents of the thesis that emigration leads to brain and skill drains argue that the country involved should not allow trained workers to emigrate. This paper argues that 'trapping' skilled workers is more than likely to be counter-productive, and concludes that if the emigration door is shut, the stock of skilled personnel is likely to fall in the source nations. The promise of jobs and higher income, particularly in a rapidly integrating global marketplace for skilled workers, provides individuals with the incentive to upgrade their skills, and this leads to investment in human capital in the source country. A ban on emigration of such workers will dissuade training in the skills and professions that are in demand globally.

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Introduction

Does emigration drain human capital from the source country? Does the emigration of skilled workers from a small developing island state deplete its stock of skilled workers? In other words, does migration from poor countries lead to 'brain drain'?. Despite a lack of evidence in support of the 'brain drain' proposition, policies have been recommended to stop, that is 'trap', the trained from emigrating from small island countries. This paper argues that this policy is more than likely to be counter-productive.

An unresolved issue from the literature relates to the welfare effects of migration. While commentators acknowledge gains to the individual migrating, the impact on the welfare of those left behind remains to be rigorously explored. Notwithstanding the gains in the form of remittances, the conventional wisdom from this literature has been that migration of skilled workers depletes the stock of professionals in the source nation. If true, then this effect is likely to be significant in small island economies most prone to such a 'loss'. But providing solid evidence in support of the 'brain drain' thesis has proved to be highly elusive. This has been so for two reasons. First, data on migration are sketchy. Second, the extant analysis has failed to fully account for the induced effects, from migration, on skill-acquisition.

Small island countries are particularly prone to emigration. While approximately one percent of the tertiary-trained population of India and China lived (as of 1990) in the US, the corresponding figures for Gambia and Jamaica were 60 and 80 percent, respectively (figures from Commander *et al.*, 2003). The authors report that for: 'very small countries the migration is of a significant rate' (page 3). This difference may be so for three reasons: (i) they are more open to international trade compared to their larger counterparts-thus merchandise trade as a share of GDP, a common measure of openness, for these countries is much higher than for larger countries; (ii) they lack scale economies at home meaning that the highly specialized have to move to large countries to find employment; and (iii) skill-selective policies of destination nations such as Australia encourage emigration of skilled workers. Remittances, consequently, account for a significant proportion of income in many small island states. Remittances for three Pacific Island States, those of Tonga, Samoa, and Kiribati as of 2005 amounted to 39, 26, and 15 percent of GDP and by far the largest source of foreign exchange earnings (data from Browne *et al.*, 2007).

Skilled emigration, while resulting in an immediate loss, also induces additional investment in skill-acquisition. The departure of a skilled person creates a void at home, which then provides the incentives to those remaining to invest in training. A nurse leaving Fiji, for example, leaves room for others to fill. But there is more. Many workers, particularly from small island economies lacking the scale economies to provide well-paying jobs at home, train themselves up specifically for emigration. A number of the well-trained individuals leave in anticipation of returning home to retire. These transient populations of workers abroad send remittances, earn foreign exchange, and help sustain jobs at home. The above is all the more important for small island economies located remotely from major markets. For them, shipping workers out to jobs abroad is more

economical than shipping jobs from abroad to these islands given the relatively expensive transportation costs.

The salient point being that there are gains from labour mobility-gains likely to be larger for small when compared to larger economies.

The Lack of Evidence to Support the 'Brain Drain' Thesis

Empirical evidence in support of the proposition that migration of skilled workers leads to a reduction in the stock of skilled personnel in the source country is scant. This deficiency, however, has not stopped policymakers from taking sides on this debate. Several eminent economists since Bhagwati and Hamada (1974) have argued in support of the 'brain-drain' thesis (see Schiff 2005; Docquier *et al.*, 2007). The few who have argued the converse include Stark *et al.*, (1998), but their views in the main have been based on theory. The latter group make a simple point; namely, that emigration creates incentives in the source nation for investment specifically for this purpose. Thus, the net effect of emigration could be ambiguous-an issue that may only be resolved empirically. The data for the resolution of this puzzle, however, are onerous and thus unavailable. Could we, for example, claim categorically whether emigration from Malta has led to a drain in skilled persons to what would have been the case in the absence of this phenomenon?

The *Economist* magazine makes a passionate case for "policies to slow down or stop the exodus of skilled labour are urgently needed" (quoted from Schiff, 2005: 32). *The Lancet*, (2008) another respected journal, editorialized that the solution to the shortage of medical professionals in poor countries was in: "demand[ing] that rich countries stop actively recruiting from poorer nations"; and, went on to argue that: "Richer countries can no longer be allowed to exploit and plunder the future of resource-poor nations." Strong and highly emotive language; and these are far from isolated views. Mills *et al.*, (2008), for example, argue for an 'immediate' discouragement of emigration of doctors and nurses from South Africa to arrest the decline in health outcomes of the people of that country. They assert that such recruitment is not only unethical but that the active recruitment of such personnel be considered an international crime.

It is questionable however whether the above is evidence-based policymaking. It is contrary to the well-established theory of international trade that argues, that in the absence of market failures, there will be gains from such exchange. Even in the case of market failure, banning migration of skilled workers would be an extreme remedy. Why not address the market failure directly?

Why is there lack of evidence in support of the brain-drain thesis? Part of the problem lies in lack of data while the bulk of the problem is in creating the true counterfactual (see McKenzie and Sasin, 2007). That is, what would be the level of human capital in the source nation in the absence of emigration? Such counterfactuals are difficult (if not impossible) to create. But if brain drain was an issue then small island economies such as

Malta should be amongst the first of the casualties. To the contrary, several small nations such as Mauritius, and Kiribati actively train their workers for the global marketplace!

Banning Migration of Skilled Workers can be Counterproductive

While well meaning in their intent, the proposal to ban emigration of workers from poor to rich nations is likely to be counterproductive. The case of small island economies can be used to illustrate reasons for the above. A ban on emigration of such workers will dissuade training in the professions that are in demand globally. It will consequently reduce the overall pool of skilled professionals available to the world. That is, any proposal to 'train and then trap' skilled workers in poor nations will only discourage schooling and in-country development of an educational capacity in these fields. The costs of such a policy, moreover, extends well beyond the shores of the island nation.

Kiribati, as an example, trains seafarers for the global marketplace. Being a small island nation of a population of approximately 100,000 and being located in the Pacific Ocean far from any major markets makes job-creation at home a difficult challenge. Its people, moreover, have lived on and off the sea for generations. They are apt at reading and surviving the worst of conditions on the ocean. These people have skills to offer: skills that are of value to the world and for themselves. Does banning the recruitment of these workers by the international shipping companies help anyone? Could it be that the 'train and trap' policy applies only to a select group of skills-doctors but not sea farers for example? The answer is in the negative for both questions.

As is, there are many hurdles to migration. Piling on further hurdles runs the risk of isolating people from gains from such trade. This in turn will trash aspirations of the many poor people who use this route to improve on their wellbeing.

Schemes aimed at banning skilled workers from poor nations is both unethical, albeit being garbed as such, and devoid of economic logic. Such a policy robs the poor of income and the rich nations of the skilled labour that both are short of. It also lowers revenues to the State to the extent that remittances fund public goods. The imbalance in supply of and demand for workers in the rich vis-a-vis poor world is only going to get worse as rich-country populations age. The proposal to 'train and then trap' workers from poor nations to 'serve at home' is short both on ethics and economics. Why do proponents of this scheme continue to expound its benefits? A reason may be the lack of evidence on the gains from labour mobility. The next section addresses this issue.

Gains from Trade in Professional Services

Evidence in support of the proposition that emigration leads to gains, particularly for those unable to move, is scant. Two recent studies provide reasons for hope. Clemens (2007) shows that the poor health outcomes in Africa have little to do with the migration of health professionals; rather, the evidence supports the proposition that access to emigration has possibly contributed to an increase in the stock of health professionals at home. Chand and Clemens (2008) provide stronger evidence in support of the proposition

that emigration leads to 'brain gain' They use census data to show that emigration from Fiji following an unexpected military coup d'etat in 1987 led to an increase in the stock of tertiary trained people in Fiji net of departures; even when compared to what would have been the case otherwise.

The Fijian experience is not unique. There is every likelihood that the stock of nurses in the Philippines, seamen in Kiribati, and peacekeepers in Fiji would be much less than it is: thanks to emigration. Many of these professional got trained at their own expense for jobs abroad. In the case of Fiji, not everyone who trained left the country, thus the stock at home rose compared to what would have been the case in the absence of emigration. For those trained on taxpayer expense, the case is for cost-recovery rather than a restraint on their mobility. The remittances these emigrants send home, the demand they create for produce from these source nations abroad, and their return for retirement back to their home nations are all bonuses over and above the traditional gains from trade. These gains are well beyond those that accrue from merchandise trade. A piece of garment, for example, when shipped abroad accrues only a one-off payment.

Conclusion

If the emigration door is shut, as suggested by the proponents of the 'brain drain' thesis, the stock of skilled personnel is likely to fall in source nations. Such declines, moreover, are likely to be the largest in small remote island economies-many already vulnerable to income volatility. Banning recruitment of workers from small island nations is likely to compound their developmental problems whilst robbing the world of their skills.

The promise of jobs and higher income, particularly in a rapidly integrating global marketplace for skilled workers, provides individuals with the incentive to investment in skills upgrading. The proponents of the 'brain drain' thesis may have been misled by the belief that there is a fixed supply of skills and that this is determined independent of the price paid for such skills. While this is true at any given point in time-the stock of doctors in Africa at this moment, for example-is fixed; it is not the case over the medium term. The long-term supply of skilled workers is determined by the rewards of being in that profession. People respond to such incentives, and emigration of skilled workers is an incentive to invest in skills that are demand.

The 'brain-drain' believers make another serious misjudgment they assume a tight and causal link between the number of health workers, an input, and health outcomes, the output in this case. The role of incentives, once again, has been ignored. Much of the aid-effectiveness literature is slowly coming around to the fact that more inputs does not necessarily imply more, or even better quality, outputs. Thus, even if we were able to trap the given quantity of professionals on an island, there is little reason to believe that incomes and welfare will improve as a consequence.

While well-meaning, the proposal to ban recruitment of professionals from poor nations in order to improve the wellbeing of their fellow citizens could do the very opposite, and worse. It could discourage investment in highly desirable skills and thus rob the investor, the home nation, and the global community of latent talent for the betterment of all. This may not be the intention of the believers in the 'brain-drain' thesis, but if their recommendations are followed then this may be its very consequence.

References

BHAGWATI, J. and HAMADA, K. (1974) "The Brain Drain, International Integration of Markets for Professionals and Unemployment" *Journal of Development Economics*, Vol.1(1):19-42.

BROWNE, C. and MINESHIMA, A. (2007) "Remittances in the Pacific Region," *IMF Working Paper*, No. 07/35.

CHAND, S. and CLEMENS, M. (2008) "Skilled Emigration and Skill Creation: A Quasi experiment," *IDEC Working Paper*, No. 08-05, The Australian National University.

CLEMENS, M. (2007) "Do Visas Kill? Health Effects of African Health Professional Emigration," *Working Paper*, No.114, Centre for Global Development.

COMMANDER, S., KANGASNIEMI, M. and WINTERS, L.A. (2003) "The Brain Drain: Curse or Boon?," *IZA Working Paper*, No: 809.

DOCQUIER, F., LOHEST, O. and MARFOUK, A. (2007) "Brain Drain in Developing Countries," *World Bank Economic Review*, Vol. 21 (2):193-218.

LANCET, The (2008) "Finding Solutions to the Human Resources for Health Crisis," *Editorial*, Vol. 371(23): 623.

McKENZIE, D. and SASIN, M. J. (2007) "Migration, Remittances, Poverty, and Human Capital: Conceptual and Empirical Challenges," *Working Paper* No: WPS4272, World Bank, Washington DC.

MILLS, E. J, SCHABAS, W. A., VOLMINK, J., WALKER, R., FORD, N., KATABIRA, E., ANEMA, A., JOFF, M., CAHN, P., and MONTANER, J. (2008) "Should Active Recruitment of Health Workers from Sub-Saharan Africa be Viewed as a Crime?" *The Lancet*, Vol. 371: 385Đ88.

SCHIFF, M. (2005) "Brain-Gain: Claims About its Size and Impact on Welfare and Growth are Greatly Exaggerated," *Policy Research Working Paper Series*, No. 3708, The World Bank.

STARK, O., HELMENSTEIN, C., and PRSKAWETZ, A. (1998) Human Capital Depletion, Human Capital Formation, and Migration: a Blessing or a "Curse"? *Economics Letters*, No.60 (3):363-367.