

ENCYCLOPEDIA OF THE DEVELOPING WORLD

Volume 1
A-E
INDEX

THOMAS M. LEONARD
EDITOR

Published in 2006 by
Routledge
Taylor & Francis Group
270 Madison Avenue
New York, NY 10016

Published in Great Britain by
Routledge
Taylor & Francis Group
2 Park Square
Milton Park, Abingdon
Oxon OX14 4RN

© 2006 by Taylor & Francis Group, LLC
Routledge is an imprint of Taylor & Francis Group

Printed in the United States of America on acid-free paper
10 9 8 7 6 5 4 3 2 1

International Standard Book Number-10: 1-57958-388-1 (set) 0-415-97662-6 (Vol 1) 0-415-97663-4 (Vol 2) 0-415-97664-2 (Vol 3)
International Standard Book Number-13: 978-1-57958-388-0 (set) 978-0-415-97662-6 (Vol 1) 978-0-415-97663-3 (Vol 2) 978-0-415-97664-0 (Vol 3)
Library of Congress Card Number 2005049976

No part of this book may be reprinted, reproduced, transmitted, or utilized in any form by any electronic, mechanical, or other means, now known or hereafter invented, including photocopying, microfilming, and recording, or in any information storage or retrieval system, without written permission from the publishers.

Trademark Notice: Product or corporate names may be trademarks or registered trademarks, and are used only for identification and explanation without intent to infringe.

Library of Congress Cataloging-in-Publication Data

Encyclopedia of the developing world / Thomas M. Leonard, editor.
p. cm.

Includes bibliographical references and index.

ISBN 1-57958-388-1 (set : alk. paper) -- ISBN 0-415-97662-6 (v. 1 : alk. paper) -- ISBN 0-415-97663-4 (v. 2 : alk. paper) --
ISBN 0-415-97664-2 (v. 3 : alk. paper)

1. Developing countries--Encyclopedias. I. Leonard, Thomas M., 1937-

HC59.7.E52 2005
909'.09724'03--dc22

2005049976

T&F informa

Taylor & Francis Group is the Academic Division of T&F Informa plc.

Visit the Taylor & Francis Web site at
<http://www.taylorandfrancis.com>
and the Routledge Web site at
<http://www.routledge-ny.com>

new programs to allow temporary immigration for employment. For example, Mexico currently has such an agreement with Canada. However, most would resist any program extending such prerogatives to non-Mexican workers. Including laborers from Central American and Caribbean states would reduce employment of Mexicans. Further, any new program would have to address the legacy of mistreatment of Braceros and put in place real protections. The costs involved might dissuade some US employers.

Some in the United States who oppose such programs dispute any need, claiming an ample supply of native labor. They argue an increase in the supply of workers would lower wages and benefits for current employees. Others see it as an effort to undercut farm workers' attempts to organize, because temporary laborers have different concerns and less interest in unionization than do permanent workers.

Some against temporary-worker programs point to the growth in Mexican immigration attributed to the Bracero Program. By escalating workers' contacts with employers, and exposing them to opportunities in the north, the program aided immigration of non-legal workers. Some calculate that for each Bracero, one unauthorized worker came. Many workers brought family members, and not all returned to Mexico when permits expired. Thus, some argue that any new program would heighten unauthorized immigration.

Those favoring such programs generally make two, often-related arguments. First, many contend the country *does* need Mexican workers to overcome a labor shortfall. They note that a new arrangement could bring workers already in the country into compliance with US laws. Second, this, in turn, would increase security by giving the government better information about who is in the country and why. Increased control over immigration would thus enhance national defense.

This issue, with its historic legacy, likely will remain on the political agendas of both nations.

JANET ADAMSKI

See also Labor; Mexico: History and Economic Development; Mexico: International Relations; Migration

References and Further Reading

- Centro de los Trabajadores Agrícolas Fronterizos: www.farmworkers.org/bracerop.html
- Craig, Richard B. *The Bracero Program: Interest Groups and Foreign Policy*. Austin, TX: University of Texas Press, 1971.
- Davis, Marilyn. *Mexican Voices, American Dreams: An Oral History of Mexican Immigration to the United States*. New York: Henry Holt & Co., 1990.
- Galarza, Ernesto. *Merchants of Labor: The Mexican Bracero Story*. Santa Barbara, CA: McNally and Loftin, 1964.

García y Griego, Manuel. "Mexico and US Guest Worker Proposals in 2000." (www.iejournal.com/01spring/01-S2.PDF).

Kiser, George C., and Martha Woody Kiser, eds. *Mexican Workers in the United States: Historical and Political Perspectives*. Albuquerque, NM: University of New Mexico Press, 1979.

Rasmussen, Wayne D. A History of the Emergency Farm Labor Supply Program, 1943-47. *Agricultural Monograph 13*. Washington, DC: US Department of Agriculture, September 1951.

Suárez-Orozco, Marcel, ed. *Crossings: Mexican Immigration in Interdisciplinary Perspectives*. Cambridge, MA: Harvard University Press, 1998.

BRAIN DRAIN

Brain drain is the movement of highly skilled professionals from poor developing countries to work and take up residence in the rich industrialized nations. Historically, the migration of highly skilled labor has always been in existence. Brain drain, however, emerged as significant policy issue in the 1970s due to the migration of a large number of highly skilled research scientists, educators, technologists, and health-related personnel from developed countries to the developed world. The current development challenges faced by third-world countries have drawn further attention to brain drain among economists, scholars, governments, and population experts (Grubel 1994; Pizarro 1993).

The United States followed by Britain are the most popular destinations for professionals from the third world (Taylor 1999). The actual process of estimating the scope of brain drain has been hampered by the absence of uniform statistics on the number and characteristics of international migrants. However, using the 1990 US census data, Carrington and Detragiache (1999) estimate that approximately 1.5 million highly educated professionals settled in the country from Asia and the Pacific. The largest groups came from the Philippines (730,000), then China (400,000), and in the third place were both India and Korea with more than 300,000 immigrants each. Approximately 95,000 of the 128,000 African immigrants were highly educated professionals. Brain drain from Central America and the Caribbean is substantial. For those with college-level education, immigration rates are above 10%. In Guyana more than 70% of individuals with tertiary education have migrated.

Causes of Brain Drain

Broadly conceived, the causes of brain drain can be analyzed along two contrasting models, the

person-centered and the nation-centered models (Zahlan 1981). In the person-centered model, the concern is with the number of immigrants, their professional qualifications, and the push and pull factors that stimulate the movement. The "preference differential" (Pizarro 1993), as manifested in stronger and more developed economies that lead to higher wages, better conditions for professional advancement, more social recognition, less restrictive living conditions, and greater political stability, act as a potent pull factor for third-world professionals. The absence of these favorable conditions constitutes the push factor in the developing countries. In this model, emphasis is placed on the migrant and the host country, while the country of origin plays a passive role.

The nation-centered model, on the other hand, considers brain drain as a factor of cultural, scientific, and developmental policies. In this model, efficiency in the utilization of highly skilled people is of utmost importance since, in the long run, it contributes to the development of society. Highly skilled individuals migrate to developed countries where they can be efficiently utilized. Thus, the movement of highly skilled professionals from developing countries to developed ones is a process in efficient allocation of human resources. In this model, the individual is of less importance as the totality of societal development is of prime significance.

Causes of brain drain can also be categorized according to three characteristics, each based on a pair of opposing factors: push-pull, objective-subjective and general-special (Vas-Zoltan 1976). Whereas push factors propel people to leave their home country, pull factors attract people to the countries to settle down. The push-pull factors can be delineated further into objective causes if they are beyond the competence of a country, such as the lack of scientific traditions or subjective causes, if they can be influenced by decisions of the state, as in the lack of realistic manpower policies. Push-pull factors, whether subjective or objective, are regarded as general if they are independent of the will or decision of the individual, for instance, the prestige of foreign training or low or high standard of living. The factors are special if they depend on the will of the individual such as desire for direct contact with scientific colleagues abroad.

Brain Drain and Underdevelopment

At a conceptual level, brain drain represents a political, economic, and social problem (Vas-Zoltan 1976). When the best professionals emigrate and settle in

more advanced countries, it is a significant political phenomenon. Brain drain expresses the internal difficulties of the country left behind, as well as the mercilessness of international competition, a struggle waged by unequal forces (Vas-Zoltan 1976). It is also an economic problem in that the more underdeveloped a country, the more it loses from brain drain, whereas only the developed countries profit from it. In social terms, brain drain is a problem since it involves a change of domicile from the underdeveloped countries to the developed ones. The greatest numbers of migrants are from engineering, medicine, science (natural), nursing, and a number of the social sciences.

In what ways has brain drain negatively affected development in third-world countries? The "drain effect," as the impact is often known, manifests itself in various forms. The most immediate impact is economic adjustment costs. Economic efficiency calls for an optimum mix of human capital with physical capital and unskilled labor. Replacement of the skilled labor cannot be sourced from other sectors but must be done through time-consuming education. The national economy, as a result, may experience a sustained period of inefficiency in production. A corollary outcome is the decline in national economic output. Human capital is an essential ingredient in national economic development, and where its loss due to emigration exceeds the original overall capital per worker, the total output per capital in the country declines. Furthermore, economic productivity is a function of the optimum capital-labor ratio. Brain drain leads to a smaller ratio resulting in lower labor productivity and reduced income per capita.

Brain drain also results in the loss of national economic investment. In most third-world countries, higher education is financed through taxes in anticipation of returns to the society in the form of increased productivity, a greater tax base leading to more revenues for further development, and the advancement of the country in science and technology. Brain drain, therefore, represents a loss in national investment since it is the most gifted and dynamic who are sources of leadership in various fields who usually emigrate.

The decline in economic investment in the source country further exacerbates the inequalities prevailing between developing and first developed countries (Grubel 1994). Citizens from developing countries lower their incomes to finance education, the benefits of which now accrue to emigrants who reside in comfort in their new abode in the rich industrial countries. The emigrants also add to the already healthy tax base and development efforts of the people whose incomes are far greater than those who financed

their education in their countries of origin. Development projects, medical services, and technological innovations suffer in the source country due to the absence of skilled labor, while the same skilled labor supports the expansion of medical and technical projects in the already affluent nations. The overall impact is the inequitable transfer of resources from poor to rich nations.

Brain drain is responsible for the decline in labor income in the source country. The emigration of persons with above-average human capital decreases the capital-labor ratio in the losing country. As a consequence, labor incomes, especially for unskilled labor, fall relative to income from the capital (Grubel 1994). Compounding this problem is the unequal access to higher rewards occasioned by emigration. Brain drain does not permit those in lower income brackets to obtain the unequal and higher rewards opened by emigration. These are received by those with higher education—predominantly those from higher socioeconomic groups (Bhagwati 1976).

Through the emulation effect (Bhagwati 1976), brain drain leads to an increase in professional salary levels in developing countries. Reduction in massive wage differentials between various groups has been one of the key objectives in social and economic planning in these countries. The perpetuation of these salary differentials flies in the face of development efforts geared to maintaining desired salary structures.

Inequalities are prevalent where remittances sent by emigrants begin to play a critical role in the economic life of those left behind. While in some cases remittances may narrow income inequalities, in other instances they tend to accentuate them. Households receiving remittances have suddenly found themselves in a higher socioeconomic level than their counterparts in a region that hitherto had been comparatively homogenous in income. This kind of inequality, according to Taylor (1999), has led to some households feeling "relatively deprived" within their reference group, which in turn creates new incentives for migration. Through this process, brain drain becomes a self-perpetuating process in migrant-sending areas.

Family welfare is a frequent casualty of brain drain. Education of children in most third-world countries is a social investment that yields returns when the educated take care of their parents in old age. Where the state finances education, the taxes derived from employed graduates contribute toward pensions, medical care, and similar programs for the elderly. Thus, emigration entails reneging on a moral obligation toward the older population, especially where emigrants do not transfer money from abroad for care and maintenance of their parents. Emigration

of the highly skilled population lowers the welfare of those left behind who have to confront a high tax burden to care for the elderly.

National Development and Brain Drain

Countries with large highly educated labor reap the most immediate benefits of brain drain. Nations such as India have large populations of highly educated scientists, engineers, and doctors, some of whom are unemployed. For such countries, emigration of highly skilled professions has small or zero negative impact but rather generates employment or full employment for individuals who would otherwise have remained jobless or underutilized. In this way brain drain contributes to the nagging problem of unemployment of highly educated professionals.

One of the most beneficial aspects of brain drain relates to the role of remittances—earnings sent back by emigrants. Mexico (\$3.7 billion) and Philippines (\$440 million) are the leading third-world countries in remittance receipt; other significant countries include Egypt, Brazil, and Pakistan (Taylor 1999). Besides contributing to foreign exchange reserves, remittances have a multiplier effect on incomes, employment, and production in migrant-sending areas. Remittances directly contribute to income in such areas and, as long as the remittances exceed the value of production lost due to brain drain, they do reverse lost-labor-and-capital effects of migration (Djajic 1986).

Remittances have played a critical role in providing finance for public projects such as parks, churches, schools, electrification, road construction, and sewers. In the Philippines, Dominican Republic, and Mexico, they have contributed toward the equalization of incomes among various socioeconomic groups. Since they favor poor and middle-income rural and urban families, remittances raise the income of small farmers, and rural-worker, as well as urban-worker households (Aschi 1994). In Mexico, they have been at the core of capitalization of migrant-owned businesses, underscoring the impact of brain drain on enterprise growth where remittances are an important consequence of emigration (Massey *et al.* 1987).

Brain drain provides impetus for skill formation in poor economies with insufficient growth potential. In these economies, returns from human capital tend to be low and thus are limited incentives to acquire higher education—a stimulant to economic growth. The emigration of the highly educated to a higher-wage country raises the returns to education, which leads to an increase in human capital formation (Beine *et al.* 2001; Mountford 1997). Granted that

BRAIN DRAIN

only a proportion of the educated population migrates, in the long term the average level of the educated population segment in society would increase.

Highly educated people in a poor country have been known, occasionally, to be a political liability. In a number of African countries academics, especially the academic proletariat of underemployed intellectuals, has provided leadership for unrest and revolutions. Such political activities have often proved to be detrimental to the development of the countries. Allowing the emigration of such highly skilled potential revolutionaries has had positive externalities for the home country.

In conclusion, it is germane to note that brain drain continues to impact developing countries in multifarious ways. The nature of its impact, nevertheless, depends on the local socioeconomic conditions, the level of educational and scientific development, as well as the prevailing political climate.

ISHMAEL IRUNGU MUNENE

References and Further Reading

- Aschi, Beth. *Emigration and Its Effects on the Sending Country*. Santa Monica, CA: The Rand Corporation, 1994.
- Beine, Michele et al. "Brain Drain and Economic Growth: Theory and Evidence." *Journal of Developing Economics* 64 (2001).
- Bhagwati, Jagdish. "The Brain Drain." *International Social Science Journal* XXVIII(4) (1976).
- Carrington, William, and Enrica Detragiache. "How Extensive is Brain Drain?" *Finance and Development* (June 1999).
- Djajic, Slobodan. "International Migration, Remittances and Welfare in a Dependent Economy." *Journal of Development Economics* 21 (1986).
- Grubel, Scott. "Brain Drain, Economics of." In *The International Encyclopedia of Education*, edited by Torsten Husen and Neville Postlethwaite. New York: Elsevier Science, 1994.
- Massey, Douglas et al. *Return to Aztlan: The Social Process of International Migration from Western Mexico*. Berkeley, CA, and Los Angeles: University of California Press, 1987.
- Mountford, Andrew. "Can a Brain Drain Be Good for Growth in the Source Country?" *Journal of Development Economics* 53 (1997).
- Pizarro, Jorge. "Intraregional Migration of Skilled Manpower." *CEPAL Review* 50, (1993).
- Taylor, Edward. "The New Economics of Labor Migration and the Role of Remittances in The Migration Process." In *Migration and Development*, edited by Reginald Appleyard. New York: United Nations and IOM, 1999.
- Vas-Zoltan, Peter. *The Brain Drain: An Anomaly of International Relations*. Budapest: Akademiai Kiado, 1976.
- Zahlan, A.B. *The Arab Brain Drain*. London: Ithaca Press, 1981.

BRAZIL

Brazil is the largest country in Latin America. It covers almost half of the South American continent, dominating the Atlantic coast with an area of approximately 3.3 million square miles. Brazil's 2002 population exceeded 175 million. Estimates of the ethnic and racial composition of the population vary. Just over half are of European origin, especially Portuguese, Italians, and Germans. More than 40% are of African or mixed African-European descent. There are also significant communities of Japanese origin, and endangered indigenous Amerindian communities. The official language is Portuguese. The national capital is Brasilia. In 2003, Brazil's GDP was \$1.38 trillion; its GDP per capita was \$7,600.

Government

Brazil's current constitution was adopted in 1988. The Federal Republic of Brazil consists of twenty-six states and the Federal District. The president is head of government and head of state. The president is elected to a four-year term by direct election. In 1997, the constitution was amended to allow a president to serve two consecutive terms. The Brazilian Congress includes the Chamber of Deputies and the Senate. The Chamber has 513 deputies, who are elected by proportional representation from each state. The least populous states are guaranteed eight seats in the Chamber, while no state may have more than seventy deputies. Three senators are elected from each state (and the Federal District) to the Senate, for a total of eighty-one seats.

In 2002, eighteen parties were represented in the Chamber and eight in the Senate. No party had a majority. The largest party in the Chamber or Senate need not be the president's party. Though enjoying strong independent powers, the president must create coalitions in order to pass the executive's legislation. States are powerful in the federal system. In addition, influential state political machines often control their states' deputies and senators at the federal level.

From Colony to Independence

The Portuguese explorer Pedro Cabral landed in easternmost South America in 1500. The territory was originally called Santa Cruz, then Vera Cruz. Most traders knew the territory because of its most sought-after export, brazilwood (used to make red dyes), which gave the country its eventual name: Brazil.