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The Global Competition for Talent
Mobility of the Highly Skilled

Chapter 1

Introduction

This chapter sets the scene for the discussion of the mobility of the highly skilled workforce and for the policy issues arising from an increasing trend in this area.

Human resources play a central role in knowledge production and thus in technological and economic development. A knowledge-based society relies on a highly qualified labour force, not only for high-technology sectors and research, but increasingly in all sectors of the economy and society. The growing intensity of knowledge means that all countries have a greater need for highly skilled specialists who are able to access, understand and use knowledge.

Movements of highly skilled people, including human resources in science and technology (HRST), make up a small but important part of international flows of migrants. From 1990 to 2000, in net terms, 5 million tertiary-educated adults moved from less developed to more developed countries, while 2 million moved between more developed countries (OECD, 2007b). The numbers are not large in absolute terms, as the United Nations estimates the stock of international migrants at some 190 million. However, if the movement of the highly skilled is concentrated in particular fields, or accounts for a large portion of the skilled population in a source or recipient country, there may be significant implications for a country's economic performance. In particular, the movement of HRST may strongly affect innovation systems.

The international mobility of labour is not a new phenomenon – people have always moved to other countries in search of better economic prospects, to escape conflict or persecution, or simply to be with family members. Historically, the diffusion of technologies has owed much to human mobility. More recently, the movement of people has intensified as economic activity has become more globalised and the introduction and reinforcement of market and semi-market economies has increased commercial activity and economic opportunity (OECD, 2006). Along with sustained growth in foreign direct investment (FDI), in trade, and in the internationalisation of research and development (R&D), mobility of HRST appears to have become a central aspect of globalisation. The total stock of immigrants grew by 23% from 1995 to 2005 in developed countries, which are now home to 60% of all international migrants (OECD, 2007b). Given ageing populations, falling interest in certain occupations in OECD countries and related concerns about potential labour shortages, international migration of the highly skilled has moved up the policy agenda in most OECD countries.

Against this background, the factors that attract skilled people to other countries are strengthening. First, there are more opportunities for people

with scientific and technical talent to study and work in a foreign country. In both OECD and non-OECD economies demand for researchers continues to rise, and governments are rapidly developing policies to attract foreign and expatriate HRST. Indeed, employment in HRST occupations grew faster than total employment between 1996 and 2006 in all OECD countries. At the firm level, intellectual assets, including those embodied in skilled people, have become strategic factors for value creation as firms shift towards more innovation-based activities, which rely largely on R&D, patents, software, human resources and new organisational structures (OECD, 2007a).

The range of possibilities for continued mobility of HRST is also expanding. With the geographical fragmentation of value chains in response to the changing business environment and the increased presence of scientific and technological skills in many more countries, multinational enterprises (MNEs) increasingly establish R&D facilities throughout the world (OECD 2008, forthcoming). While most internationalisation of R&D still takes place within the OECD area, developing countries increasingly attract R&D centres. China and India, in particular, have attracted much attention in recent years. As the demand for HRST extends across a wider range of countries, the distinction between "sending" and "receiving" countries blurs. The time scale of mobility is also changing, ranging from traditional notions of permanent migration to temporary, circular and even commuting arrangements. These trends make analysis more challenging.

For OECD countries, these developments are important. Skilled HRST embody knowledge and contribute to innovative activity and play a vital role in economic growth and prosperity (or, at a firm level, in profits and success). Attracting more HRST, at both the country and firm levels, can hasten the accumulation of knowledge, stimulate innovation and lead to higher levels of economic activity and prosperity. However, the loss of skilled people engenders concerns about shortages and brain drain, particularly in developing countries.

A number of policy questions related to the international mobility of skilled HRST are therefore high on the policy agenda of OECD governments. How much mobility is desirable? What is the best way to attract talent? How does the loss of locally trained workers affect innovation? What is the best way to ensure policy coherence among domestic policies and policies relating to developing countries? Countries want to make the most of the opportunities presented by this aspect of globalisation, but they also want to better understand the effects on their economies and learn how to manage them. The demand for HRST is strong and increasing, and international flows have significantly affected stocks in many countries, yet the appropriate conceptual frameworks for policy, and the right mix of measures and instruments, are not yet clear.

This study draws on analytical literature, the most recent available data and the very valuable policy inventories and evaluations undertaken by some member and observer countries to discuss the dimensions, significance and policy implications of international flows of HRST at the present time. Chapter 2 reviews recent analyses of the significance of HRST mobility in knowledge formation and use, the motives for HRST migration, and the impacts of mobility on both sending and receiving countries. Chapter 3 reviews current data on HRST migration and explores the evidence on the impacts of OECD and non-OECD mobility patterns. Chapters 4 and and 5 focus on policy: Chapter 4 provides the most recent information on current mobility policies in selected member countries, gathered via a questionnaire sent to members of the OECD's Ad Hoc Working Group on Steering and Funding of Research Institutions; and Chapter 5 looks ahead to discuss future policy options for the mobility of HRST.

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