

Table of Contents

Executive Summary	9
Chapter 1. Introduction	17
References	20
Chapter 2. Knowledge Diffusion and Impacts of International Mobility	21
Why is mobility important?	22
What induces mobility?	23
How does mobility spread knowledge?	26
How much knowledge moves?	32
The effect on the receiving country	35
The effect on the sending country	39
Highly skilled immigration and world welfare	59
Summary	61
Notes	61
References	62
Chapter 3. Mobility and Its Impact: Data and Evidence	67
Patterns of mobility	69
Impact	100
Outlook – the internationalisation of R&D	111
Summary	115
Notes	116
References	116
Chapter 4. Current Policy Approaches	121
Mobility strategies	122
Overview of policies	126
Discussion of national-level policies	136
Policy at the institutional level	141
Summary	142
Notes	144
References	144

<i>Chapter 5. Looking Ahead: Mobility Policy</i>	145
Establishing the rationale for government intervention	146
What role for mobility policy?	151
Policy coherence	156
Summary	163
Note	164
References	164

List of Boxes

2.1. Immigrants' labour market performance in OECD countries – recent trends	36
2.2. Labour market impact of migrants	37
2.3. Open innovation	39
2.4. Further impacts of emigration on developing countries	42
2.5. Brain circulation: Korea's ICT	48
2.6. Networks	49
2.7. Innovation capability – a measure of absorptive capacity	52
2.8. Diaspora at work	57
2.9. Supporting the diaspora in developing countries	58
3.1. Data availability and limitations	68
3.2. The migration of academics and scientists: recent evidence from Australia	70
3.3. Attitudes to mobility in Europe: the 2005 Eurobarometer survey ..	98
4.1. Other policy options to facilitate mobility	132
4.2. Further mobility policy examples (1)	133
4.3. Further mobility policy examples (2)	135
5.1. Market failure	147
5.2. Evaluation of current mobility policies	153
5.3. Encouraging innovation – policy levers	157
5.4. Migration and development – some policy proposals for Europe	160

List of Tables

2.1. Reasons given by doctorate holders for coming to the United States over the last ten years, 2003	25
2.2. Possible effects of highly skilled international migration on receiving countries	38
2.3. Possible effects of highly skilled international migration on sending countries	43
2.4. Level of diaspora engagement based on country conditions and diaspora characteristics	56

3.1. Expatriates in OECD countries, highly skilled, by OECD country of birth, 2001	73
3.2. Share of science professionals in tertiary-educated workers, circa 2000	80
3.3. International students in Korea, 2006	85
3.4. Foreign students in Japan, 1985-2006	86
3.5. Foreign students in China, 2005	88
3.6. Percentage of the foreign-born population with a duration of stay of ten or more years	91
3.7. Percentage of recent doctorate holders having declared their intention to move out of the country in the next year	95
3.8. Percentage of temporary residents who received US S&E doctorates in 1998 and were in the United States, 1999-2003 ...	96
3.9. US inflows of highly skilled workers	101
3.10. Indicators of international collaboration for major S&E publishing centres	106
3.11. Change in international collaboration in the United Kingdom, 1996-2000 to 2001-05	108
3.12. Average impact of national papers and co-authored papers, 2001-05	110
4.1. Mobility strategies	124
4.2. Economic incentives for inflows of HRST	127
4.3. Immigration policy to facilitate inflows of HRST	128
4.4. Recognition of foreign qualifications to facilitate inflows of HRST	129
4.5. Social and cultural support to facilitate inflows of HRST	130
4.6. Policies to facilitate research abroad (outflows of HRST)	131

List of Figures

3.1. Expatriates in OECD countries, as a percentage of all native-born, by OECD country of birth, 2001	72
3.2. Distribution of expatriates by skill level and country of origin, 2001	73
3.3. Main OECD destinations of OECD-born highly skilled expatriates, 2001	74
3.4. Percentage of immigrants in OECD countries with tertiary education	75
3.5. Highly skilled migrants from OECD and non-OECD countries, by OECD country of residence, 2001	76
3.6. Share of foreign-born in HRST aged 25-64, in EU27 and selected countries, 2006	77
3.7. Foreign born highly skilled expatriates in OECD countries, by country of origin, 2001	78

TABLE OF CONTENTS

3.8. Immigrant and emigrant population 15 years and over with a tertiary education in OECD countries, 2001	79
3.9. Foreign-born doctorate holders as a percentage of total doctorate holders, 2001	80
3.10. Expatriation rates of the highly skilled to the OECD, 2001	81
3.11. Number of students enrolled outside their country of citizenship, 1975-2005	84
3.12. Students from non-OECD economies enrolled in tertiary education in OECD countries, 2004	86
3.13. International students in advanced research programmes, 2005	87
3.14. International students by field of education, 2005	88
3.15. Immigrant-founded start-ups in US technology centres, 1995-2005	91
3.16. Foreign science and engineering doctorates who intend to stay in the United States, 2000-03	97
3.17. Post-graduation plans of Korean doctorate recipients from US universities in science and engineering fields	98
3.18. Percentage change in permanent academic staff in UK universities, by nationality, 1995/96 to 2003/04	101
3.19. Share of highly cited researchers with research experience outside of their home country	103
3.20. Patents with foreign co-inventors	105
3.21. US S&E articles (whole counts) with at least one author at a top 200 research university and one author at a foreign institution	107
3.22. Relationship of foreign-born US S&E doctorate recipients to their country's scientific collaboration with the United States ..	107
3.23. Co-authorship network in "Superconductivity and quantum computing"	109
3.24. R&D intensity, 2006 and evolution of GDP expenditure on R&D, 1996-2006	112
3.25. Gross expenditure on R&D (GERD), 2006	114