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Vocational education and training – new challenges

Recognition of foreign professional
qualifications

New forms of learning in the digital age

Mobility and improving qualification

Reflecting on inclusion

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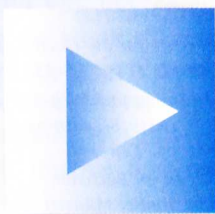
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Geographical mobility and qualification – a historical perspective

► The fundamental economic transformation of the past few decades has caused seismic shifts in the interrelationship between geographical mobility and qualification, the conditions, forms and consequences of which are mapped out in this article. The great mass migrations of the 19th and 20th centuries were characterised by the movement of people with low qualifications to become a “cheap” and “willing” workforce for the extraction and exploitation of the natural resources specific to their destinations. Although it is a valid observation that migration has commonly been associated with gaining qualifications, in that era knowledge transfer due to the movement of specialists was only ever marginal in scale by comparison to the mass migrations of unqualified workers. In view of the accelerated pace of structural economic change since the Second World War, however, and the increasing level of professionalisation and specialisation in the most diverse fields of work, the acquisition of qualifications has since become a considerably more significant factor.

Structural change and mobility

“Mobilising skills for economic competitiveness”, “free movement in education and training” and “removing barriers to labour mobility” are just some of the slogans from the debate on how to manage existing and foreseeable skills shortages in Germany and in other countries of the European Union. Amid ever-diminishing demand for low-qualified workers, who therefore have to contend with low incomes and lengthy phases of unemployment, the demand for (highly) qualified workers keeps growing. The vigorous debate centres not only on promoting intra-European mobility as a means of managing labour market shortages but also the prospect of attracting (highly) qualified workers from non-EU countries for European labour markets. It is almost impossible to make an accurate assessment of the chances of augmenting existing workforce potential with more highly qualified immigrants because a) the countries concerned are involved in global competition in this respect, b) various traditional sending countries of migrants to Europe are themselves undergoing substantial demographic and economic change, and c) in many EU countries, there is still little public acceptance of opening up labour markets to immigrants.

The drastic rise in demand for (highly) qualified workers in the last few decades in the face of falling birth rates is predominantly a result of the swiftly developing service economy and knowledge society, which is less and less dependent on the labour-intensive extraction and exploitation of site-specific natural resources. Things were different in the past: in earlier decades and centuries, a majority of jobs in agricultural and industrial societies did not require any substantial qualifications. Likewise, the labour migrants of the 19th and 20th centuries were generally low qualified.



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Migrating to take advantage of opportunities – even without qualifications

Migration is relocation to a different place of residence by individuals, families, groups or entire populations, with intent to remain for a substantial length of time. Different dimensions of migrations can be distinguished (cf. Table). These include labour migrations, settlement migrations, nomadism, educational and cultural migrations, migrations for marriage and prosperity, and forced migrations (flight, displacement etc.). Leaving forced migrations aside, individuals, families and groups move voluntarily between geographical and social territories in the endeavour to earn a better living by improving their labour-market, educational and training opportunities or by exploring new opportunities (in this regard and on the following, cf. OLTMER 2010a, pp. 1–7).

In labour migrations the primary difference between the region of origin and the destination region is an economic disparity. This need not be understood as a generalised mismatch in economic development between two major regions, by any means; it is often restricted to particular, small-scale market segments. Specific social attributes of individuals or members of families or groups, which include gender, age, occupational status and qualifications, and imputed attributes (particularly regarding membership of ethnic groups, castes, races or nationalities) all affect market access and hence the ability to take advantage of the opportunities of migration.

A central element in both economic growth and economic integration and transformation in the agricultural and industrial societies of past decades and centuries was the availability of labour as a production factor, and the geographical movement of workers to extract site-specific natural resources. From the early 19th century onwards, the number of people turning their back on Europe rose rapidly. A small proportion of European intercontinental migrants, female as well as male, set forth overland and settled predominantly in the Asiatic regions of the Russian empire. The vast majority crossed the continent's maritime borders (cf. Figure, p. 38): of the 55–60 million Europeans who moved overseas between 1815 and 1930, more than two-thirds went to North America, predominantly the USA. Around one-fifth emigrated to South America and approximately seven per cent reached Australia and New Zealand. These million-strong migrations were mainly a result of high demand for unskilled and therefore cheap labour, people who cleared land for agricultural production with their bare hands, extracted important raw materials for European and North American industry, worked as “excavators” building railway lines, canals, streets and ports, or found employment in factories as unskilled or semiskilled workers (cf. OLTMER 2010b, pp. 178–188).

Table Causes and spatio-temporal dimensions of migrations

Cause
<ul style="list-style-type: none"> • Taking advantage of opportunities (labour and settlement migrations) • Coercion (flight, forced displacement, deportation, usually for political and ideological reasons or as a consequence of wars) • Crisis (e.g. environmental pressures induced by human or natural environmental destruction; emigration because of acute economic and social hardships) • Education/training (acquisition of occupational or academic qualifications) • Culture (cultural migrations, prosperity migrations)
Distance
<ul style="list-style-type: none"> • Intraregional (close migrations) • Interregional (moderate distance) • Transboundary (need not cover great distances but crossing borders generally has substantial legal consequences for the individual) • Intercontinental (long distances and usually relatively high costs)
Direction
<ul style="list-style-type: none"> • Unidirectional (migration to a destination) • Phased (stopovers are taken, mainly to earn money to continue the journey) • Circular (more or less regular shuttling between two regions) • Return migration
Duration of stay
<ul style="list-style-type: none"> • Seasonal • Several years • Working lifetime • Lifelong

In parallel to the intercontinental labour and settlement migrations from Europe, there were massive population movements in the context of European and urbanisation. Particularly in Western and Central Europe, rapid industrialisation meant that a larger proportion of the population gravitated to urban centres than remained in rural areas. In the year 1800, statisticians counted 23 cities in Europe with more than 100,000 inhabitants; these were home to 5.5 million people in total. 100 years later, the count had risen to 135 cities with a total of 46 million inhabitants (cf. BADE 2000, pp. 69–84).

The rapid growth of European cities was closely intertwined with the fundamental shift in the balance of individual economic sectors in relation to agriculture, and the rise of manufacturing, industry and services: urbanisation was an outcome of extensive interregional labour migrations resulting from the rapid economic structural change caused by industrialisation. This geographical mobility was determined by a fluctuating mass of unqualified youthful immigrants and young families seeking work and higher earnings. Added to these were the many seasonal migrants – again, often young people – who worked in the building trade, for example, or in the case of women, in hotels and restaurants or in domestic service (maidservants).

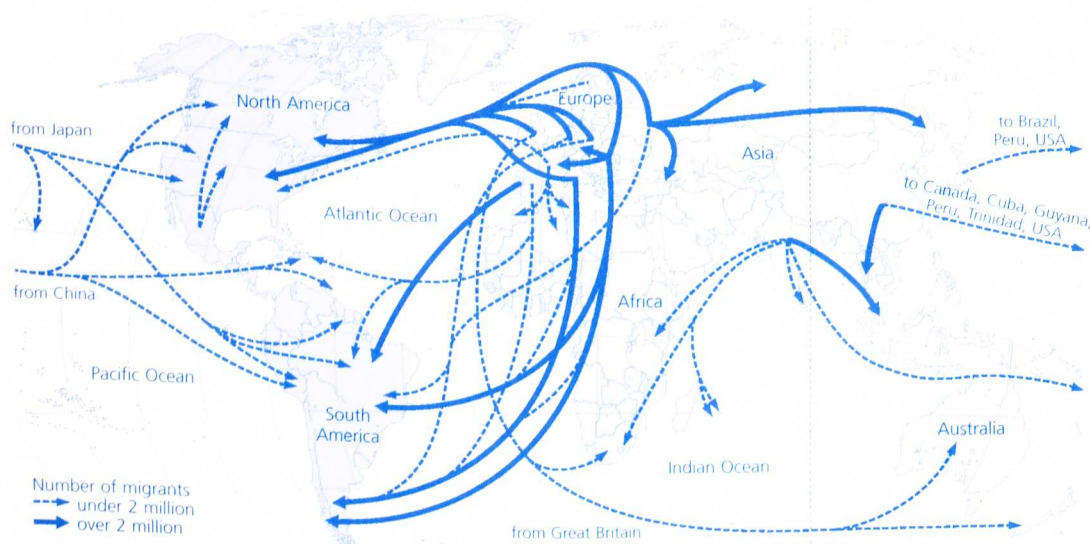


Figure
Global labour and settlement migrations 1815 – 1914
 (Political and territorial situation in the year 2000)

Source: OLTMER 2010b, p. 180 f.

Migration as the transfer of special knowledge

Compared to the internal and cross-border mass migrations described, the number of movements of workers with qualifications remained low. Only in particular labour market segments and branches, migration served the purpose of transferring special knowledge or acquiring qualifications.

ACQUIRING KNOWLEDGE THROUGH MIGRATION

For instance, at the start of the 19th century, the rich tradition of journeyman migrations initially upheld its continuity and significance in relation to overall migration activity. Vienna, with a total population of 350,000, was the industrial and service centre of the German Confederation in the first half of the 19th century. It also played host to 140,000 to 160,000 craft journeymen every year. These were craftsmen who had completed their apprenticeships, after which it was compulsory to spend a certain number of years travelling according to the regulations of their guild. To varying degrees in each craft, this custom was aimed at transferring knowledge and technological innovation by means of migration. Furthermore, the guild regulations for travelling journeymen amounted to steering instruments in labour markets: the compulsory migration was in the interest of the master craftsmen, who wanted to keep the employment of journeymen as flexible as possible because the demand for labour was constantly changing due to seasonal fluctuations and reacted extre-

mely sensitively to short-term economic, demographic or political crises, e.g. plagues or wars (on this and on the following, cf. OLTMER 2010a, pp. 15-26). Migrations by journeymen lasted for three to five years and sometimes took them all over Europe. Working stopovers with employers could last for days, months or even years and were interspersed with phases of unemployment and migration. The migration and employment patterns of journeymen were adapted to production cycles that were usually seasonal. A key characteristic of their labour markets was rigid segmentation: each skilled craft had its own labour market and its own set of regulations on the journeyman years. Furthermore, the labour markets were regionally segmented, which had more than a chance influence on migration routes.

Systems of migration which operated for centuries and were associated with gaining qualifications can be observed elsewhere in the German building trade, e.g. among brickmakers, of which the group from the Lippe region is the best documented: it was in the 17th century that former seasonal farm workers began to specialise in the production of bricks and roof tiles. Within a few decades they had monopolised the labour market for brickmakers in East Frisia and in neighbouring Dutch Frisia, expanding into Schleswig-Holstein and Jutland in the 19th century. Up to the First World War there were brickmakers from Lippe to be found throughout north-western Europe and southern Scandinavia, and sometimes far beyond (Russia, Austria, Hungary). Around 1900 one-quarter of all adult men in

Lippe were employed as seasonal workers in the brick-making industry

Lippe's brickmakers provide an example of occupation-specific migrations of the kind that became well-established in some trades during the Early Modern period. Yet the qualifications offered in these niches cannot be traced back to the tiny region from which the workers originally came. Those who embarked on such migration were not skilled workers when they left; they gained their specific occupational knowledge only as a result of labour migration.

In Lippe, for example, there was no distinctive brickmaking industry and the predominant building style consisted of timber-framed houses with lime plastered walls. The (informal) training in brickmaking was undertaken in the groups who lived far from home and tended to work together for many years. Likewise, in large areas of Europe, active whitesmiths from the Italian Alps acquired their knowledge only on leaving their regions of origin where there was no tradition of this craft.

DISSEMINATION OF KNOWLEDGE THROUGH MIGRATION

The special knowledge of migrant groups from identical home regions was transmitted within stable communication networks based on kinship or friendship. Pioneer migrants took advantage of labour-market opportunities more less ad hoc, and if the segment proved suitable for developing further market opportunities, they passed on specific knowledge to friends and relatives. These in turn were available, once their training was complete, to pass on knowledge to new migrants within the communication network. In this way a group could take control of specific labour-market and product niches and maintain this dominance over a long period of time in particular regions.

The transmission of specialist occupational knowledge within firmly defined communication networks based on kinship and friendship is by no means a thing of the past: in the Republic of Ireland today, for example, the owners of almost all fish-and-chip bars originate from the village of Casalattico in the Italian province of Frosinone, or within a 10 km radius of that village. The first fish-and-chip bar in Ireland run by an Italian from this narrowly defined region of origin was opened in 1904. Currently three-quarters of all Italian migrants in Ireland originate from the village of Casalattico, which also means that almost all Italians in Ireland run fish-and-chip bars (cf. other examples of similar phenomena in BADE et al., 2010).

Immigrant specialists were frequently pioneers in the industrial development that brought mining and metallurgy centres to prominence in many parts of Europe, by using

their skills to exploit new deposits. The knowledge passed on by itinerant specialists was constitutive for the introduction of new technologies in other sectors, too, including mechanical engineering, textiles and heavy industry. This was particularly true in the early phase of industrialisation, during which time models of formalised training in the technical and engineering occupations were – only gradually – taking shape. In France, for example, the immigration of British technologists was concentrated into the period from the 1820s to the 1840s. As a rule they stayed for just a few months or years, generally gravitating to where the technological superiority of British industry promised some modernisation of traditional processes. This applied particularly to the iron and steel industry, the textile industry, and other processes that were switching to the use of steam-powered machinery.

For example, the English “puddlers” were manufacturers of high-grade iron and steel using a process developed in England. Between 1820 and 1850 they brought the process to Belgium and France, and finally to Germany. A tendency was apparent among the puddlers that has also been observed in other groups: knowledge transfer by migrating specialists could be so effective as to make migration redundant. By the mid-19th century there were enough native puddlers on the continent, and by the time new steel manufacturing processes were introduced in the second half of the 19th century, demand for highly specialised puddlers had tailed off completely.

Although Great Britain continued for some time to exert an attraction for technologists, engineers and entrepreneurs from the continent who were seeking to improve their knowledge of modern manufacturing processes and forms of distribution, the balance shifted in the late 19th century and German industry garnered a more prominent role in the forms of knowledge transfer necessary to pass on technical innovations. Up-and-coming specialists were now moving to Germany in ever-increasing numbers. This also furnished the context for the growing appeal of universities, and especially polytechnic universities, in the eyes of foreign students, as a result of the ascendancy of education and training in engineering and the natural sciences in Imperial Germany. A similar effect could be attested for agricultural and trade colleges, mining academies and other technical colleges. In 1912 the student population of around 13,000 at Germany's polytechnic universities included some 4,400 foreign citizens, the largest single group being almost 2,000 subjects of the Russian Tsar.

Already the founding of numerous academies and universities for technical and engineering professions suggests that since the late 19th century, in particular, professionalisation gained considerable weight in diverse lines of work. Against the backdrop of rapid technical progress and the

increasingly scientific nature of many fields of employment, access to certain segments of the labour market without formal education qualifications was no longer possible. Work opportunities for unqualified workers dwindled but, even after the Second World War, did not dry up entirely as is evident from the history of foreign-worker recruitment in West Germany from the 1950s to the early 1970s. By 1973 the foreign working population in the Federal Republic of Germany had grown to around 2.6 million. From the end of the 1950s up to 1973, around 14 million foreign workers had come to Germany. Some 11 million of them eventually returned home; the rest stayed and were joined by their families.

Limits to state control of geographical mobility

The early 1970s brought the decline of the old industries (iron and steel, textiles, mining) which had employed the many unskilled and semiskilled workers. Germany's halt on the recruitment of foreign workers in 1973 is symbolic of structural change in the labour market. Rationalisation and automation of production led to a rapid fall in the demand for unqualified employees in the 1970s and 1980s. This was a development precipitated by the digital revolution that began in the 1980s and has affected all fields of work. Now the only people with good job prospects are those who acquire occupational qualifications. Geographical mobility can be a prerequisite for gaining such qualifications and can improve the chances of making appro-

appropriate use of them in an occupational field; it can also support the transfer of technologies and specialist knowledge. However, in neither case has geographical mobility ever been an indispensable precondition and nor will it be in future, especially as there are signs that the digital revolution will reduce the need for physical relocation.

State steering of migration is an extraordinarily difficult undertaking, as various historical examples show, because the underlying reasons why people act on their willingness to migrate are unfathomably complex and the individual perceptions of the opportunities and risks of migration are very varied. Furthermore, what effect political intervention will have on migration choices is virtually impossible to predict accurately. Because migration processes essentially have open outcomes, there is always a chance that incentivising mobility could set in train permanent depopulation trends that are deemed undesirable. ■

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