Chapter 5
Patterns of Migration of Medical Doctors from MENA and ECE to EU Economies with Descriptive Analysis of Relatives Wages

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ABSTRACT
This chapter introduces the main features that characterize the health systems and mobility of medical doctors in both MENA and ECE countries taken together. The observed trends and patterns are confronted to the relative wages of medical doctors in each country. A descriptive analysis is conducted on relative wages of medical doctors as they prevail in MENA and ECE relative to EU besides the relative wages between MENA and ECE.

INTRODUCTION
To understand and assess the emigration of medical doctors from countries of the Middle East and North Africa (MENA) and Eastern & Central Europe (ECE) to the EU, USA, Canada or Australia, it is necessary to initiate preliminary empirical investigations. The use of pre-established databases and various emigration-related variables and likely determinants is an important step towards this assessment. It is also established from previous studies such as in Driouchi, Baudassé, Zouag and Boboc (2009) in addition to Driouchi and Kadiri (2010), that new economics of emigration of skilled labor and of medical doctors can have promising effects not only for destination but also for source countries. Brain gains through the
Patterns of Migration of Medical Doctors from MENA and ECE education systems are among the spillovers that can be shown in series of source countries. The cases of the likely gains from MENA countries as established in Driouchi & Kadiri (2010) are promising applications that show the limits of the previous brain drain theories and applications. But, as relative wages are among the likely candidates to explain migration, a descriptive analysis is conducted on relative wages.

This chapter aims at characterizing the emigration of medical doctors in the MENA and ECE countries in parallel to the patterns related to the relative wages of medical doctors. After introducing the overall methodological approach used, the second section discusses the parameters of medical emigration and describes the stocks of physician emigrants, the distribution of medical doctors in relation to the population and the number of physicians per country and per year. The third section reviews the most important determinant of emigration as explained by the wages of origin versus destination countries.

I. METHODOLOGICAL APPROACH

For the purpose of describing the main features related to the emigration of medical doctors from MENA and ECE countries to EU, four groups of countries are considered. There are (1) MENA countries excluding those composed of a majority of emigrants (Algeria, Egypt, Iran, Iraq, Israel, Jordan, Lebanon, Libya, Morocco, Syria, Tunisia, Turkey and Yemen), (2) ECE (Belarus, Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Russia, Slovakia, Slovenia and Ukraine), (3) other MENA countries (Bahrain, Kuwait, Saudi Arabia, Qatar, Oman and United Arab Emirates) and (4) Other European Countries - OEC (Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom).

Among the determinants considered in the following chapters and in the analytical studies introduced above, the pertinent variables include relative wages of medical doctors, labor markets and demographic trends.

Databases were used to describe the emigration of physicians such as the one constructed by Docquier and Bhagrava (2006) and by Bhagrava, Docquier and Marfouk (2010). The databases provide information about the population of the counties, the number of physicians practicing domestically, the number of physicians per 1000 people and the emigration rate of physicians that is derived from the stock of physicians abroad taken as a percentage of medical doctors trained in their country of origin. The data for this latter is only available from 1991 to 2004 and it represents efforts of the Trade Team Development Research Group to measure the extent of brain drain in the international migration and development program. The main countries of destination for physicians coming from the MENA and other regions are the United Kingdom, USA, France, Canada, Germany, Belgium, Australia, Italy, Sweden, Switzerland and Austria.

In relation to relative wages, data is retrieved from the most recent International Labor Organization (ILO) Geneva (LABORSTA Labor Statistics Database) and completed with other sources as indicated in the reference list for France, Morocco and Tunisia. Since minimum and maximum salaries of French general physicians were not found in the ILO database, they were extracted from the “Institut National de la Statistique et des Etudes Economiques” (INSEE, 2002), the British Medical Journal (1997) and the French ministry of health statistics (2008). Tunisian and Moroccan physician wages were also retrieved from other sources as provided in the reference list. The data covers wages from 1995 to 2008 where only data for General physicians on a monthly basis were considered. The wages are then transformed to a common currency based on the exchange rate information provided by “Oanda.com currency.