



World Conference on Technology, Innovation and Entrepreneurship

## Emigration of Innovative Workforce in the Light of Patent Data

Özgür Topkaya\*

*Çanakkale Onsekiz Mart University, Biga Faculty of Economics and Administrative Sciences,  
Labor Economics Department, Biga, Çanakkale, Turkey*

---

### Abstract

The study uses patent data statistics from World Intellectual Property Database (WIPO) to reveal emigration of innovative workforce issue which has adverse effects on the economies of origin countries. Statistical data indicate that emigration of innovative workforce is not only a problem for developing countries but also it is a problem for developed nations as well. The study directly refers to the mobility of inventors since it uses the patent data statistics. Elimination of spillover effects that might be obtained by the new inventions from a Schumpeterian point of view, loss of the most important segment of human capital and characteristics of emigrant receiving and sending countries are also discussed in the study. To prevent emigration of high skilled workforce particularly the inventors, the study discusses the effects of active labor market policies as a measure. The study therefore aims to stress the importance of retaining innovative workforce and attract as many as possible to improve potential of economy by using data analysis and literature review methods.

© 2015 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Peer-review under responsibility of Istanbul Univeristy.

*Keywords:* Innovative Workforce, High Skilled Workforce, Human Capital, Emigration, Active Labor Market Policies

---

### 1. Introduction

Continuous efforts of major economies to increase their economic growth and employment rates cause breakthroughs in the production of goods and services each day. High-tech industries report innovations day by day and strengthen their place in the economy by increasing their competitiveness levels in this way. Higher quality products and services, products that are the result of shorter periods of production processes or cost effective

---

\*, Corresponding author. Tel. +902863358530  
E-mail address: [ozgurtopkaya@gmail.com](mailto:ozgurtopkaya@gmail.com)

methods are all obtained as a result of new economic orientation that is based on the use of high technology and scientific approach by high-skilled workforce. Innovations are crucial to be successful in knowledge economy. New economic thinking is different from past economic understandings with respect to the role that it casts to the high-skilled workforce which represent the core element for the inventions. Human factor is a significant issue in the knowledge economy. High skilled workforce is required from the invention of a product or a service to its production or implementation and ultimately to the delivery to customers. Yet, high-skilled workforce is difficult to put in work for many countries since it takes years to train young generations to participate in the labor market. Training existing workforce is also an alternative to overcome shortage of high-skilled workforce with implementation of lifelong learning processes. Countries with high skilled workforce shortage usually try to attract this type of labour abroad by offering them various incentives.

Emigration of skilled workforce is not a new issue. Many countries, particularly the developing ones faced the burden of losing their skilled workforce in the 1960s due to flow of workforce to the developed countries. Brain drain migration concept emerged in those years to highlight the problem for the origin countries. Countries that lost their high skilled workforce also lost their chances to reach the economic growth levels of developed nations. High skilled workforce left their country of residence avoiding from political conflicts and economic problems such as unemployment, unsustainable living standards, poverty and poor infrastructure. Those countries then probably could not act to prevent the ongoing flows since many of them faced labor surpluses due the unexpected population growth rates.

Retaining high skilled workforce particularly the inventors have come fore in recent years. Inventors create innovative ideas in goods and services sector and in this way technological improvements are made. These technological improvements change the state of economy to an upper level with a more competitive environment. Countries attempt to increase the number of inventors as many as possible from the supply side of the economy with the aim of becoming market leaders or maintaining their position in the global economy. Many countries implement immigration regulations that attract high skilled workforce and inventors to their countries.

Today it is possible to track inventor mobility by patent data. The data indicate that inventors not only emigrate from developing countries to developed ones, but also they emigrate from developed nations to other countries as well. There are immigration corridors for inventors in the world from India and China to the United States of America (the USA) or from Germany to France and as such. The study follows conceptual framework for patents and how it is used to track inventor mobility in the next part. Following the second part of the study, third part includes the literature review part and then investor mobility and statistical data are presented. Before conclusion, measures against retaining investors are included in the study.

## **2. Conceptual Framework and Use of Patents as an Indicator to Track Inventor Mobility**

Patents have been used as an institution to encourage inventive activity as early as in the 14<sup>th</sup> century in Venice. However, the oldest treaty related to patents is the Paris Convention for the Protection of Intellectual Property dated 1883. European countries did not have a supranational arrangement in this field before 1883. National jurisdictions of the courts were not recognized in other countries. Industrialization led validity of intellectual property (IP) rights. As a result eleven countries (Belgium, Brazil, France, Guatemala, Italy, the Netherlands, Portugal, Salvador, Serbia, Spain and Switzerland) signed and acknowledged that foreign patent owners would be considered as domestic patent owners in 1883. The treaty was revised in different dates of 1900, 1911, 1925, 1934, 1958 and 1967 and amended in 1979. The Convention now has 176 contracting member countries (Harhoff et al., 2007:16).

A patent is a document. It is issued by an authorized governmental unit and it gives the right to its owner to exclude anyone else from the production or use of specific new device, apparatus, or process for a stated of years. The grant is given to the inventor of this device or process after an examination that focuses on both the novelty of the claimed item and its potential utility. The right secured in the patent can be assigned by the inventor to somebody else, usually to his employer, a corporation, and/or sold to or licensed for use by somebody else. This right can be enforced only by the potential threat of or an actual suit in the courts for infringement damages. The

Download English Version:

<https://daneshyari.com/en/article/1110019>

Download Persian Version:

<https://daneshyari.com/article/1110019>

[Daneshyari.com](https://daneshyari.com)