International Journal of Asian Social Science

Asian Economic and Social Society
www.aessweb.com

The Effects of Afghan Immigrants on Unemployment Rate in the Economy of Iran

Saeid Eisazadeh (Assistant Professor of Economics, Faculty of Economics and Social Sciences, Bu Ali Sina University, Hamedan, Iran)

Jahanbakhsh Mehranfar (M.Sc. Student of Economic, Faculty of Economics and Social Sciences, Bu Ali Sina University, Hamedan, Iran)

Author (s)

Saeid Eisazadeh
Corresponding author: Assistant Professor of Economics, Faculty of Economics and Social Sciences, Bu Ali Sina University, Hamedan, Iran.
Email: saeed_isazadeh@yahoo.com

Jahanbakhsh Mehranfar
M.Sc. Student of Economic, Faculty of Economics and Social Sciences, Bu Ali Sina University, Hamedan, Iran.
Email: j_mehran2000@yahoo.com

The Effects of Afghan Immigrants on Unemployment Rate in the Economy of Iran

Abstract

In this paper we study the impacts of Afghan immigrants on the unemployment rate in Iran, through time series data analysis and estimating regression equations using Ordinary Least Square (OLS) method. Results indicate that during the period under study (1976-2006), Iranian workers have been replaced by Afghan workers. In fact, Afghan immigrants led to increase the unemployment rate in the economy of Iran.

Introduction

During last few decades Iran has experienced a massive flow of immigrants due to Being neighbor with economically and politically unstable countries. According to statistics released by Ministry of Interior, about 90 percent of these immigrants are Afghans. Most Afghans live outside camps dispersed throughout the country mixed with Iranian households.The majority of Afghan immigrants are typically unskilled and illegal workers. They expect lower wages than their Iranian counterparts and are ready to work in troublous conditions. Iranian people are concerned that Afghan immigrants reduce employment opportunities for the existing work force, depresseswage rates in already low-wage labor markets. In this respect, it is essential to assess the impact of afghan workers on unemployment. Therefore, the present studyaims at investigating theimpact of afghan immigrants on the unemployment rate in the economy of Iran using Ordinary Least Square (OLS) method during the period between 1976 and 2006.

The rest of the paper is structured as follows. Section 2 provides a theoretical framework that explains the aggregate relationship between unemployment and immigration. Next section reviews some of the existing studies on the impacts of foreign workers on the unemployment. Section 4 provides the historical background of Population movements from Afghanistan into Iran and then, analyses the profile of Afghan workers in Iran. Section 5 presents the econometric model and provides data and methodology. Section 6 presents the results obtained. Last section provides conclusions and policy implications that emerge from the study.

Theoretical Framework

Impact of immigration on the level of unemployment in the host country can bestudied through two perspectives. Some people contend that the employment ofimmigrants decreases the employment of domestic workers on a one-for-one basis. At the other extreme is the claim that immigrants only accept work that resident workers are unwilling

to perform and thus take no jobs from native workers.According to McConnell *et al* (2003), immigration does cause some substitution ofillegal aliens for domestic workers but the amount of displacement is most likely lessthan the total employment of immigrants.In Figures 1,*D* is the typical labour curve, $S_d$portrays the labour supply of domestic workers,$S_t$reflects the total supply of domestic and immigrant workers. Given the presenceof the illegal workers, the market wage and level of employment are $W_t$and Q_t. The presence of the immigrants increases the total number of jobs in the market. Withthe illegal migration, the number of jobs is Q_t. Without the inflow it is Q_d. Therefore,it can be said that native employment would increase by the amount $Q_d$upon thedeportation of $Q_i$immigrants.

[Insert figure 1, about here]

Harrison (1983) has contributed a quite good idea to the understanding of the effects of immigrants on native unemployment. He notes that an immigrant increases the demand for goods and services upon arrival and hence increases the demand for labor. Simon (1989) and Gross (1997) formulize Harrison's theory, which will better analyze Harrison's theory and describes its implication with different sets of parameters.

The total impact of immigrants on native unemployment can simply be illustrated using definition of aggregate unemployment:

$$U_N^A = U_N^B + I_N - O_N \qquad (1)$$

Where U_N^A and U_N^B are native unemployment after and before the arrival of immigrants and I_N and O_N are the unemployment inflow and outflow. In the aggregate search framework, the two effects described above resulting from arrival of immigrant imply that (1) is also,

$$U_N^A = U_N^B +$$

$$tE_N - (tE_N + dM)\frac{(tE_N + U_N^B)}{(tE_N + U_N^B + aM)} \qquad (2)$$

with $tE_N = I_N$, the native turnover rate (t: assuming that everybody experiences unemployment when changing jobs) times the number of natives employed (E_N). The term dM is the demand induced job creation by immigrants where "d" is average immigrant spending for consumption relative to average native spending forconsumption, which may be thought as new jobs created by immigration ("d" is likely tobe $0 < d \leq 1$); M is the number of new immigrants. The sum is $(tE_N + dM)$ therefore thenumber of new vacancies; "a" is the relative likelihood of an immigrant and native beinghired into particular job opening. So, the first two terms on the right hand side of (2)are, respectively, the number of natives originally unemployed, and job turnovers. Fromthese are subtracted the sum of the jobs due to turnover and to the increased demand dueto immigration,$(tE_N + dM)$, multiplied by number of natives seeking jobs, $(tE_{N+} U_N^B)$ tothe sum of the natives seeking work plus effective number of immigrants seeking work,$(tE_{N+} U_N^B + aM)$.

Subtracting the 'pre' native unemployment from the 'post' native unemployment, we get

$$U_N^A - U_N^B = \frac{(a-d)tE_N M - dMU_N^B}{tE_N + U_N^B + aM} \qquad (3)$$

For native unemployment to fall, i.e., for $U_N^A - U_N^B < 0$, it is necessary and sufficientthat,

$$(a-d)tE_N M - dMU_N^B < 0$$
$$or \qquad d(tE_N + dU_N^B) > atE_N \quad (4)$$

which is necessarily satisfied (but not only then) if $U_N^B > 0$ and $d \geq a$. That is, as long as there is any native unemployment it will fall due to immigration if an immigrant's consumption bears a higher proportion to native consumption than an immigrants' propensity to find job bears to a native's propensity to find a job in the same market.

In light of this theoretical background, this study aims at testing one null hypothesis.This hypothesis states that afghan immigrants lead to unemployment in Iran.

Literature Review

In this section we review only the major studies that focused on the effects of immigration on

the unemployment of domestic workers. Marr (1973) examined the relationship between immigration and unemployment rate for Canada for the period 1950 to 1967. He found a significant negative relationship between immigration flows and the Canadian unemployment rate and arguedthat a high unemployment rate led to a lower flow of immigrants.Withers and Pope (1985) use Granger causality tests to examine the relationship between Australian immigration and unemployment rates between 1948 and 1982. They were unable to find evidence of immigrants affecting the unemployment rate. Altonji and Card (1991) studied the effects of immigrants on less-skilled natives. The authors found little evidence that inflows of immigrants are associated with large or systematic effects on the employment or unemployment rates of less skilled natives.

Winegarden and Khor (1991) use 1980 U.S. census data on the state distribution of the undocumented-alien population in analyzing the relationship between thatPopulation and unemployment among youth and minority workers. A simultaneousequation model involving unemployment and immigration as endogenous variables wasestimated. The results support that undocumented immigration has caused increases in joblessness among the presumably most vulnerable groups in U.S workforce.Akbari and DeVoretz (1992) analyzed Canadian data to assess the impact of immigrant workers on the employment of Canadian-born workers for 125 Canadian industries using 1980 data. They used translog specification of the production function. The estimated cross elasticities suggested no economy-wide displacement of Canadian-born workers by immigrants.Marr and Siklos (1994) test for causality between unemployment and immigration in Canada in a vector autoregression model. They find a positive association between past immigration and current unemployment for the period 1978–1985. Marr and Siklos (1995) investigated the relationship between immigration andunemployment in Canada using annual data from 1926 to 1992. They used bothGranger causality tests between unemployment and immigration and the unrestrictedVARapproach involving time series regression of

unemployment, immigration,wage (per capitatotal labour income), and real GDP. The Granger causality testsrevealed that immigration was not caused by past unemployment; however, pastimmigration did cause unemployment. Evidence also suggested that immigration andunemployment rates were inversely related and the past unemployment rate had aquantitatively smaller impact on immigration than past immigration had on current level of unemployment. Shan *et al.* (1999) do the same for Australia and New Zealand but find no such causality from immigration to unemployment.

Alessandra Venturini (1999), in her empirical analysis focuses on the effect of illegally working immigrants on native Italians' legal employment, using Central Statistical Office figures for the period 1980 to 1995. Based on a production function with three labour inputs – regular, non-regular natives and non-regular foreigners – she estimates elasticities of labour demand which provide evidence of the relationship between these types of labour. The results imply that non-regular labour, both of natives and immigrants, has a small adverse effect on legal employment.

Gross (1998, 2002, 2004) use time-series analysis to look into the effects of migration flows in France and Canada on the unemployment rate. Gross's findings show that distinguishing between short-run and long-run effects is important. In the short run, immigrants slightly increase the unemployment rate. There are reasons to believe this positive impact on unemployment is attributed to an increase in job search time rather than to displacement of native workers. In the long run, immigrants create more jobs than they occupy and unemployment lowers permanently. Konya (2000) tested the Granger causality between immigration and long-term unemployment in Australia in the period between 1981 and 1998. Using quarterly, both seasonally adjusted and unadjusted data, she found that there was a negative unidirectional Granger causality, both between the seasonally unadjusted and adjusted series, running from immigration to long-term unemployment. George Borjas, Jeffrey Grogger and Gordon Hanson (2006) specifically turn the attention to the immigrant impact on the

employment rates of African-Americans.Their empirical results show that a 10% increase in skill-specific labour supply due to immigration lowers the employment rate of black men by 3.5 percentage points.

Joshua Angrist and Adriana Kugler (2003), investigate how the nativeemployment rates across 18 Western European countries are related to the respectiveimmigrant shares in those countries, using Eurostat data for the period 1983 to 1999, which iscompiled from country-specific labour force surveys.The empirical results implythat a 10% increase in the foreign share reduces native employment by 0.2 to 0.7 percentagepoints with OLS estimates. Based on spatial correlation approach, Zahra Karimi (2004) studied the effects of Afghan immigrants on unemployment rate, using 'Plan for Identification of Foreign Immigrants-2000' data and 1996 Iran Census. She found a weak negative relationship between unemployment and the number of Afghan workers in each province. She expressed that immigrants inhabit in those provinces which had low rate of unemployment.

The Presence of Afghan Immigrants in Iranian Labor Market

Following the energy crisis of early 1970s, the demand for unskilled laborers especially in the construction sector was increased in Iran owing to the great number of development projects initiated in different parts of the country. Therefore, a large number of Afghan workers entered to Iran.

Coincided with the advent of communist revolution in Afghanistan in April 1978 and the collapse of Muhammad Daoud Khan in the aftermath, this cross-border mobility took a new shape by escaping Afghan refugees to their neighboring countries. Not much later, it took another turn being intensified by Soviet Union invasion to Afghanistan in 1979. However, this time, the influx of Afghan immigrants was not for labor demand, instead, they were refugees fleeing their country as result of civil war, intervention of Soviet Union, bombardments, mass killing, violation of human rights, political chaos and above all downfall of the national

economy. In 1981 about 1.5 million Afghans fled to Iran and the number reached to 3 million people by 1990. On the contrary to the United Nations High Commission for Refugees (UNHCR) the government of Iran viewed the issue as 'Involuntary Religious Migration' thus didn't consider them as refugees. According to this classification which was based on Islamic principles, there was no limitation for them in crossing Afghanistan-Iran border. Furthermore, in Iran they had accesshealthcare,basic education and subsidized food on the same terms as Iranian citizens (CRS[1], 2007). It is to be mentioned that the government of Iran at that time was enduring a burden of about 10 million US dollar daily for allocating subsidized amenities to Afghan refugees (Abbasi, 2005). Anyhow, only about 10% of the Afghan population in Iran resided in camps, and most Afghans established themselves in cities and villages of Iran to earn livelihood (Karimi, 2004).

The Soviet withdrawal from Afghanistan and the fall of the communist Najibullah regime led to a large-scale process of repatriation in 1992 and 1993. This period of return, facilitated through a tripartite agreement between Iran, Afghanistan and UNHCR, came to a halt in the face of renewed warfare among the various mujahedin groups and the gradual takeover by the Taliban from 1994 onwards.A new outflow of Afghans sought safety and work in Iran in the period 1994– 2001, though these were not granted refugee status. As a result, all nonofficial movement across the border in these years appeared as illegal labour migration. A thriving smuggling network facilitated this movement. With the fall of the Taliban in late 2001, repatriation resumed once Again.From 1 March 2002 to 31 October 2004, 770,643 Afghans returned from Iran with the voluntary repatriation operation. But the process was hampered by the bad economic conditions in their home country (Nakanishi 2007).

Table 1 shows the number of Afghan immigrants in Iran between 1990 and 2010.

[Insert table 1, about here]

---

[1]-Congressional Research Service

Afghan immigrants are mostly illiterate and unskilled, working in slums of the developing cities at stone-cutting factories and poultry and dairy farms. In the northern part of the country they are hired in lumber factories, and in the urban areas they are employed in the construction sector. The Afghan workers in the construction sector spend whole time at their workplace in a single room or under a tent being deprived of basic facilities and safety equipments. Their employment terms also are short mostly less than six months and they are supposed to leave their workplace once finish the task. Some of the Afghan workers are engaged in low profile jobs such as digging sewage canals that their Iranian counterparts are not ready to undertake at any wage. A number of Afghan refugees are engaged in business sector as shop-keepers and salesmen. However, Afghan workers are still ready to work under hard conditions and undertake cumbersome jobs with low wages as they receive higher wages (8-10 times more) in Iran as compared to their own country; that is why they are satisfied with working in Iran. To be noted that at least one member of each Afghan refugee family is employed in Iran although in various cases most of the family members contribute to family income in a way that their children after school hours go to work, and their women are in domestic service as housemaids, employed at old houses and nurseries, and engaged in tailoring and carpet-weaving (Abbasi, 2005).

Education and Skill of Afghan Immigrants in Iran
According to the survey report based on 'Foreign Immigrants Registration Plan', about 98% of employed Afghans (legal and illegal) have intermediate or lower education. The report also shows that nearly 90% of employed Afghans were illiterate at the time of their arrival to Iran and more than 75% of them had no skill at all.
Based on the last report released by Interior Ministry in 2006, the statistics of Afghan immigrants above 6-year-old are presented according to their education in table 2. To add in passing, these statistics are about that portion of immigrants who are registered and issued residential cards (Interior Ministry of Iran, 2006).
[Insert table 2, about here]

It is mentioned earlier that only a small number of Afghan immigrants have university education. Table 3 presents statistics of literate Afghans by their level of education.

[Insert table 3, about here]

Employment of Afghan Immigrants in Three Main Economic Sectors of Iran
Due to illegal employment of Afghan immigrants there is no accurate statistics available regarding their relative distribution in different parts of the country's economy. According to 2001 report by Interior Ministry of Iran, there are about 2,355,427 Afghan immigrants in Iran out them 808,541 are legal while the remaining 1,546,886 are illegal. In other words, 66% of Afghan immigrants in that year were illegal.

The report also indicates that 86% of Afghan immigrants employed in Iran in that year were working in industrial and construction sectors, and to be more specific, more than 70% of them were working in the construction sector while in service and agriculture sectors their volumes were 8% and 6% respectively (Interior Ministry of Iran Report, 2001).

Their low presence in agriculture is natural due to scarcity of agricultural lands, traditional mode of cultivation, and self–employment in this sector. As far as service sector is concerned legal obstacles such as trade license, and other legal documentation as well as social communication and networking restrictions are main reasons behind their low presence in this part. According to the 2006 population and housing census, residential cards have been issued to 1,030,646 Afghan immigrants out of them 369,944 men are working in various economic sectors. Relative distributions of immigrants in three main economic sectors are presented in figure 2. As mentioned earlier these statistics are related to registered immigrants who have work permit excluding millions of illegal immigrants wandering in the Iranian labor market.

[Insert figure 2, about here]

The Model, Methodology and Data:

The Econometric Model:
Our aim is to estimate the impacts of afghan workers on unemployment rate in the economy of Iran. For this purpose, we analyze regression models. The basic model for unemployment rate can be written as:

$$U_t = C + \beta_1 LP_t + \beta_2 GDP_t + \beta_3 AF_t + \beta_4 RW_t + u_t \tag{5}$$

Where:

U_t: Unemployment rate

LP_t: Labor force

GDP_t: Gross domestic production

AF_t: Afghan immigrants' population in Iran

RW_t: Real Average wages

u_t: Residual term

GDP and RW are in real terms. The β_i are the parameters to estimate. In this model, 'U' is dependent variable and indicates the unemployment rate in the economy of Iran. 'LP& AF' indicate labor supply-side; and 'GDP' indicate demand-side while 'RW' includes both supply and demand sides; because changing wages would change both labor supply and labor demand. It is expected that there would be a positive relationship between 'RW' and 'U'. It is also expected that 'U' would have positive relationship with supply-side and negative relationship with demand-side variables.

Methodology
In this study, we analyze regression equations with time series data and Ordinary Least Square (OLS) estimation method.For time series data, it is necessary to conduct the stationarity test. As indicated in Granger and Newbold (1974), using non-stationary macroeconomic variables in time series analysis causes superiority problems in regressions. To eliminate this problem, stationarity tests must be performed for each of the variables. There have been a variety of proposed methods for implementing stationarity tests (for example, Dickey and Fuller, 1979; Sargan and Bhargava, 1983;

Phillips and Perron, 1988 among the others) and each has been widely used in the applied economics literature. However, there is now a growing consensus that the stationarity test procedure due to Dickey and Fuller (1979) (hereafter ADF) has superior small sample properties compared to its alternatives. Therefore, in this study, ADF test procedure was employed for implementing stationarity tests.

If an OLS regression is estimated with non-stationary residuals, then the regression is spurious. If all variables are I (1) (non-stationary), then if the regression produces anI (0) error term, the equation is said to be cointegrated. To test for cointegration between two or more non-stationary time series, it simply requires running an OLS regression, saving the residuals and then running the ADF test on the residual to determine if it is stationary**.** In this paper, cointegration tests were carried by means by Engle and Granger (1987).As indicated in Engle and Granger (1987), performing this method requires that all variables should be stationary in the same level and at least first difference**.**

Data
This study uses data that consists of annual observations spanning the period between 1976 and 2006. All data are obtained from the World Bank World Development Indicators (WDI) database and Central Bank of Iran. Missing migration series were interpolated using quadratic match average technique.
Afghan immigrants and labor force data are in terms of thousands and the daily average wage rate is in IR Rial.

Empirical results

Unit root test
In this study, Augmented Dickey-Fuller (ADF) test procedure was employed for implementing stationarity tests. We employed the log selection information criteria often employed in the literature, namely the Schwartz Bayesian Criterion (SBC). Table-4 summarizes the ADF test results. While the numbers in parenthesis shows the lag lengths, the numbers in brackets shows the 5% critical values due to McKinnon (1990). The second and third columns of Table-

4 summarize the ADF-t statistics of the variables questioned in their own levels. Any of these values is not greater than related critical value. This result can be interpreted as any variable is not stationary in its own level. On the other hand, the fourth and fifth columns of Table-4 show the ADF-t statistics of variables questioned in the first difference. These statistics show that all variables in the analysis are stationary in the first difference, which is all variables are I (1).

[Insert table 4, about here]

Cointegration test

Table-5 presents the Engle-Granger cointegration test results. This test is based on whether the residuals, which were obtained from related regressions, are stationary or not. If the residual series is stationary, then variables used in the regression are cointegrated. The results in Table-5 show that there are cointegration relations among the related variable pairs. This result proves that the residual is stationary.

[Insert table 5, about here]

Regression results

The basic model in equation (1) was estimated using (OLS) method. The regression results are presented in table 6.

[Insert table 6, about here]

Before we use an estimated equation for statistical inference, we should generally examine the residuals for serial correlation, normality, heteroskedasticity, in the residuals from our estimated equation. For this purpose, we use Serial Correlation LM, ARCH LM and Normality tests. Results of these tests, confirmed that the standard assumptions of regression are established.

The positive and significant relationship between variables of labor force population and unemployment rate is evident from economic theories perspective too. Because if the labor supply increases; the employment rate will decline due to the economy's incapability to absorb the increasing labor force. The estimation of the model reveals a negative relationship between gross domestic production and unemployment rate. High production is the

result boom in economic activities which in turn would increase labor demand and employment opportunities over there.

Positive relationship between total number of Afghan workers and unemployment rate of the economy of Iran, show that Afghan workers have replaced native workers and reduced employment opportunities for the existing workforce in Iran. Therefore, afghan immigrants and the Iranian workers are substitutes.

The most of Afghan workers are illiterate and low educated people. So, they are classified unskilled workers who can be easily competing with native unskilled workers.Afghan workers are ready to work under hard conditions and undertake cumbersome jobs with low wages.That is the one main reason thatemployers prefer these workers against Iranian workers. Finally, Results obtained from estimation of the equation (1), indicate a positive relationship between average real wage and unemployment rate in the economy of Iran. According to economic theories, the more the production cost is high, the more production volume will decline and the demand for labor will decrease. The attained relationship also confirms it.

Conclusion and policy implications

The aim of this paper is to assess the impact immigration has on unemployment in the Iran. The results show thatAfghan immigrants led to increase the unemployment rate in the economy of Iran. In fact, the job opportunities available to native born, worsened because of the existence of the large pool of substitutable immigrants.According totheoretical framework that presented in section 2,Afghan immigrant's consumption bears a lower proportion to native consumption than afghan immigrants' propensity to find job bears to a native's propensity to find a job in the labour market of Iran.Our findings are similar to other studies results like Joshua Angrist and Adriana Kugler (2003), Alessandra Venturini (1999), Winegarden and Khor (1991), Marr and Siklos (1994) that they foundpositive relationship between unemployment and immigration.

Our findings suggest that the government of Iran should use appropriate policyfor preventing employment of Afghan workers in the labor market of Iran.Because, the migration of Afghans to Iran motivated by better economic conditions and higher labor demand in Iran as compared toAfghanistan, So the best strategy for preventing employment of Afghan workers would be to develop better ways of tackling the problem at the demand side: increasing the costs and probability of apprehension for employers, and lowering the costs of hiring Iranianborn workers. Employer sanctions are the most efficient forms of control, as they are specifically targeted to reduce the incentives for hiring Afghanworkers. Penalties have to be sufficiently high to counterbalance the economic gains from hiring Afghan workers – thus, penalties include not just fines and payment of arrears on tax or national insurance, but also costs of deportation, exclusion from bidding for any public contracts, or imprisonment. On the other hand, if the costs of employing native born workers were reduced by introduce exemptions from taxation and insurance payments; there would be less of an incentive to draw on migrants for labor.

References

Abbasi-Shavazi, MJ., Glazebrook, D., Jamshidiha, G., Mahmoudian, H., & R. Sadeghi (2005) "Return to Afghanistan? A study of Afghans living in Tehran".Afghanistan and Research Evaluation Research (AREU), Kabul.

Akbari, A., DeVoretz, B. (1992) "The Substitutability of Foreign-born Labor in Canadian Production: Circa 1980".Canadian Journal of Economics, August, vol. 25, no. 3, pp. 604-614.

Altonji, J. G. and D. Card, (1991) "The Effects of Immigration on the Labor Market Outcomes of Less-Skilled Natives" in J. M, Abword and R. B. Freeman, editors, Immigration Trade, and the Labor Market, Chicago: University of Chicago Press,

Angrist, J.D. and Kugler, A.D. (2003) "Protective or counter-productive? Labour market institutions and the effect of

immigration on EU natives?".Economic Journal, vol.113, pp. 302–331.

Borjas, G. J., Grogger, J. and Hanson, G.H. (2006) "Immigration and African-AmericanEmployment Opportunities: The Response of Wages, Employment, and Incarceration toLabor Supply Shocks", NBER Working Paper, No. 12518.

CRS report for congress, (2007) Afghan Refugees: Current Status and Future Prospects.

Dickey, D. A., Fuller, W. A. (1979) "Distribution of the Estimators for Autoregressive Time Series with a Unit Root" Journal of American Statistical Association, vol.74, pp. 13-33.

Engle, R. F., Granger, C. W. J. (1987) "Co-integration and Error Correction: Representation, Estimation and Testing", Econometrica, vol. 55, pp. 251-276.

Gross, D. (2004) "Impact of Immigrant Workers on a Regional Labor Market", Applied Economics Letters, vol. 11, pp. 405–408.

Gross, D. (2002) "Three Million Foreigners, Three Million Unemployed? Immigration Flows and the Labor Market in France", Applied Economics, vol. 34, pp. 1969–1983.

Gross, D. (1997) "Immigration Flows and regional Labor Market Dynamics",Vancouver Centre of excellence: research on Immigration and Integration on the metropolis (RIIM), October, Working paper No.97-09

Karimi, Zahra (2004) "Effects of Afghan Immigrants on Wage and Employment Rates in Iran",Quarterly Journal of Economic Researches of Iran, Vol.: 18.

McConnell, C. R., Brue, S. L., Macpherson, D. A. (2003) Contemporary Labor Economics. Columbus, OH: McGraw-Hill Irwin, pp. 295-301.

Marr, W. L. (1973) The Economic Impact of Canadian Inward and Outward Migration and Their Determinants, 1950 – 1967. Ontario, University of Western Ontario Unpublished PhD. Dissertation.

Marr, W. L and P. L. Siklos, (1994) "The Link between Immigration and Unemployment in Canada" Journal of Policy Modeling, Vol.16, pp. 1-26.

Marr, W. L and P. L. Siklos, (1995) "Immigration and Unemployment: A Canadian Macroeconomic Perspective", in Diminishing

Returns: The Economics of Canada's Recent Immigration Policy, edited by D.J. DeVoretz, The C.D. Howe Institute, Toronto and the Laurier Institution, Vancouver, pp. 293-330.

Nakanishi, Hisae, (2005) "Afghan refugees and migrants in Iran", Discussion Paper for Peace-building Studies, No.06

Shan, J, Morris, A. and Sun, F. (1999) "Immigration and Unemployment: New Evidence from Australia and New Zealand", International Review of Applied Economics, vol. 13, no. 2, pp. 253–258.

Simon, J (1989) The economic Consequences of Immigration, Basil Blackwell and the Cato Institute.

Venturini, A. **(1999)** "Do Immigrants Working Illegally Reduce the Natives Legal Employment? Evidence from Italy", Journal of Population Economics, Vol. 12, no.1, pp.135-154.

Winegarden, C.R. and Khor, L.B. (1991) "Undocumented immigration and unemployment of US youth and minority workers: econometric evidence". Review of Economics and Statistics, Vol.73, no.1, pp. 105–112.

Withers, G., Pope, G. D. (1985) "Immigration and Unemployment". Economic Record, Vol. 61, , pp. 554-563.

World Bank (2008) World Development Indicators CD-ROM. Washington: World Bank.

Tables and figures:

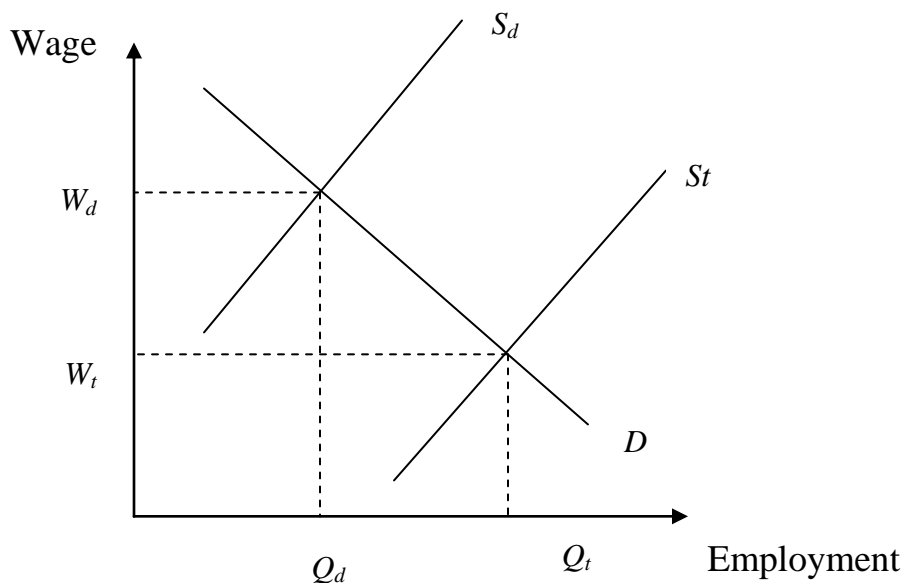**Figure 1:** Immigrants effect on employment of native-born workers

Table-1 Estimated Number of Refugee and Immigrants in Iran

year	Estimated number of refugees at mid-year	Estimated number of international migrants at mid-year
1990	3061110	3191601
1995	1429038	2515539
2000	1482000	2303805
2005	920248	2012218
2010	935958	2028685

Source: United Nations, Department of Economic and Social Affairs

Table -2: Population of Afghan Immigrants According to Their Education

| Total population of above 6 -year-old	Literate	Illiterate	Percentage of illiterates
1030646	575184	455462	44%

Source: Interior Ministry of Iran

Table-3 Number of Literate Afghan Immigrants According to Their Level of Education

Literate Afghan immigrants	Primary school	Secondary school	High school	Pre-university	Higher education	Adult Literacy Program	Others
Number	281340	132166	63590	4620	13912	34025	28690
Percent	49%	23%	11%	0.8%	2.4%	5%	4%

Source: Interior Ministry of Iran

Figure 2: Relative Distribution of Afghan Male Immigrants in Three Sectors of the Economy of Iran
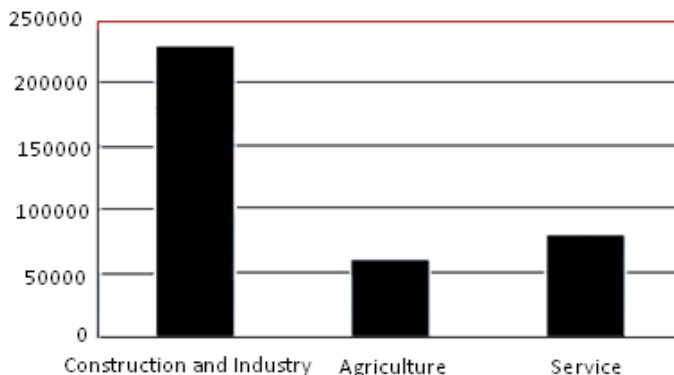
Source: Interior Ministry of Iran

Table-4 Unit Root Test Results

Variables*	ADF-t statistics (levels)		ADF-t statistics (the first difference)	
	Without Trend	With Trend	Without Trend	With Trend
U (0,1)	-2.21[-2.97]	-1.32[-3.57]	-2.98[-2.96]	-3.84[-3.57]
LP (2,0)	-2.34[-2.97]	-3.20[-3.60]	-3.43[-2.96]	-3.77[-3.57]
GDP (0,1)	-1.89[-2.97]	-2.34[-3.57]	-4.34[-2.97]	-3.85[-3.57]
AF (1,2)	-1.23[-2.97]	-2.56[-3.57]	-3.93[-2.96]	-3.87[-3.57]
RW (1,1)	-1.37[-2.97]	-2.38[-3.57]	-4.87[-2.96]	-3.96[-3.57]

* There are two numbers in parenthesis nearly the variables. The former one is about log levels and the latter one is about the first difference of the variables

Table-5 Engle-Granger Cointegration Test Results

Variables	ADF-t Statistics	
	Without Trend	With Trend
MODEL 1	-3.65[-2.96]	-4.26[-3.57]

Note: The values in brackets show the 5% critical value due to McKinnon.

Table-6 Estimation Result of Equation 5**.**

Variable	Coefficient	Std. Error	t-Statistic	Prob
C	3.34	2.77	1.22	0.22
LP	8×10^{-4}	2.17×10^{-4}	3.77	0.0008
GDP	-5.64×10^{-5}	1.40×10^{-5}	-4.03	0.0004
AF	1.36×10^{-4}	5.72×10^{-4}	2.37	0.0265
RW	1.50×10^{-4}	6.01×10^{-5}	2.49	0.0207
R-squared	0.87	Mean dependent var		11.70
Adjusted R-squared	0.86	S.D. dependent var		1.71
S.E. of regression	1.19	Akaike info criterion		3.34
Sum squared resid	37.29	Schwarz criterion		3.57
Log likelihood	−46.85	F-statistic		8.85
Durbin-Watson stat	2.06	Prob(F-statistic)		0.000119