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**"THE EFFECT OF IMMIGRATION ON EMPLOYMENT AND WAGES:  
TURKEY AS A HOST COUNTRY"**

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*“Towards to a world where no one is forced leave their homeland, where all the migrations are voluntarily”*

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## INTRODUCTION:

Throughout history migration has been a major topic evaluated by the researchers. Globalization has resulted in an increase in migration in a variety of ways. Global world enabled migration to be more possible both for high skilled and low skilled people. Labor migrations started to increase rapidly decade by decade. Developed countries are the major countries that host migrants from all around the world. Migrants are looking for better living standards where they can reach higher wages and better working and living conditions. That's why mostly they aim to move to developed countries. However, this is not always the case.

There are different types of migration: voluntary migration and involuntary migration. Unfortunately, civil wars, political conflicts and terrorism cause enormous mass population shifts from their home countries to other host countries. People try to escape from politically unrest countries to other host countries with the hope for a safer life. The civil war in Syria started in 2011, destroyed cities and caused many people to become homeless. Civil war caused a humanitarian disaster and followed by waves of immigration to neighboring countries such as Turkey, Lebanon, Jordan, and Iraq. Turkey has become the country that has hosted the majority of the refugees. The country has been exposed by mass migration waves, especially in the neighboring eastern cities.

The first wave of immigration began in 2011, Turkey has declared "Open Door Policy" up to 100.000 refugees in 2011, however prolonged war has caused the number of refugees to exceed the anticipated numbers. (Orhan and Gündoğar, 2015). The population of the refugees has reached 1.5 million in 2014, currently by 2022 the official population of Syrian refugees is 3.7 million according to the Presidency of Migration Management of Turkey<sup>1</sup>.

Massive immigration waves caused Turkey to go through drastic socio-economic changes in the last decade. Labor market structure is changed remarkably by the entrance of refugees in the labor force. Historically, Turkey was not a labor market where migrants were hosted, instead it was a country that sent employees overseas.

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<sup>1</sup> **Presidency of Migration Management of Turkey.** 2022 "Distribution of Syrians Under Temporary Protection by Year"

We will begin our study in this thesis with a literature review of migration theories, beginning with early migration theories in the literature and continuing with migration theories classified according to Massey's categories. After the profound discussions about the migration theories, we are going to continue our discussions on how the migration affects the host country's labor markets in terms of wages and employment rates. First of all, we will discuss our analysis of how migration affects the labor markets of host countries by the traditional labor market framework. Secondly, we will be focusing on empirical studies and try to attempt clarification of how migration affects the labor markets of host countries. We will be criticizing various empirical studies on the topic with the aim to compare and contrast the main findings of the notable studies as they are not all leading the same consensus about the effects of migration, the wage levels of natives or employment in the labor markets.

In the second chapter of the study, we will start to get into details of how migration waves began and evolved over the last decade in Turkey. Besides, we will examine the demographics of refugees in Turkey. Turkey is using the terminology of "temporary protection" for the Syrian refugees claiming that they are guests in Turkey, and they will be going back to their native country. However, migrants who used to live in temporary refugee camps transformed into the permanent migrant populations located in the big cities. As refugees transform to permanent migrants, they also become part of the society and the labor market.

Next, we will be examining the fundamentals of the Turkish labor market. This overview on the Turkish labor market, which is the host country of this thesis, will provide us substantial background information about the market. Understanding the Turkish labor market dynamics will help us to be able to develop our analyzes on the effects of Syrian migration on the Turkish labor market, particularly wages and employment. To reach conclusions and judgements how Syrian migration affects the Turkish labor market, I will use my own inferences based on the official datasets provided by government agencies and global institutions. The findings of economists who are primarily interested in this field of research, most of whom are Turkish academics, will also be added to reach the conclusions. Finally, as the migration in the Turkish labor market is a relatively new phenomenon, the commentary on possible long-term effects of migration in the labor market will be discussed.

## **CHAPTER 1:**

# **STUDYING THE IMMIGRATION PHENOMENON FROM A THEORETICAL POINT OF VIEW**

## **PART 1: Migration Theories:**

The phenomenon of migration started to attract researchers' attention by the end of the 19th century, since then there have been many studies conducted. Subject of migration has been studied under many different disciplines using different approaches such as sociological, political, historical, cultural, geographical, demographic, and economic both in macro and micro levels. Examining the phenomenon from various perspectives leads to the development of various theories and approaches, even within the same discipline. Therefore, there is no single migration theory that could explain the entire process because of the multi-dimensional and complex structure of the matter. Since it is very difficult to view the literature developed about the migration, the first sections of the first chapter of the thesis will be developed by primarily focusing on the early migration theories, the section will then provide an overview of current theories by categorizing them based on subject-based analysis and dividing migration into two categories: initiation and perpetuation/spread. (Massey, et al., 1993; Arango, 2000) The economic model of labor supply and demand with immigrants will be examined in the second section of the first chapter to better understand how migration affects the traditional framework of both in short and long run. After that, some empirical studies will be discussed in order to better comprehend the concept of imperfect substitution and migration effects on wages and employment levels.

### **Early migration theories:**

In his well-known work *Wealth of Nations* (1776), Adam Smith is the first academic to address the phenomenon of migration. According to Smith's perspective the main reason for the migration is the disparity in the labor market. The root of this imbalance in the labor market occurs because wage rates differ from one location to another, in a larger portion than the variation of the prices of the goods. These wage differentials among the regions that exceed the price of goods creates arbitrage opportunities. Yet, Smith emphasizes that due to costs either direct or indirect that are an impediment, the intensity of immigration is not as great as the intensity of trade. Some of these costs can be said as expenses of relocation, forfeiture of domestic assets, rights of pension and psychological costs. He underlines that because the costs of migration are higher than the benefits which leads to low levels of immigration eventually result in significant wage disparities across countries. (Smith, 2006)

The early migration theories were mainly influenced by the work of Smith, and they were created in the countries and geographical areas that come across with the mobility issues of the population such as the USA and Europe. Early theories were not developed by a single discipline; rather, the movement of populations drew researchers from a variety of disciplines, including economics, sociology, and geography.

<b>EARLY THEORIES OF MIGRATION</b>	
<b>Author, Year</b>	<b>Name of the Theory</b>
<i>Ravenstein (1885, 1889)</i>	Law of Migration
<i>Stouffer (1940)</i>	Theory of Mobility
<i>G.K. Zipf (1946)</i>	Gravity Model
<i>Lee (1966)</i>	Pull/Push Factors

**Figure 1: Early theories of migration**

Source: Personal elaboration

The first scientific paper that was published on immigration is the work of English/German geographer E. Ravenstein “The Laws of Migration” by 1885, later Ravenstein also published an empirical study as a second paper with the same name by 1889. According to Ravenstein economic factors are usually the driving force behind migration. In his studies, Ravenstein claims that there are seven fundamental laws about migration. Ravenstein based his empirical study on British census data to produce these seven fundamental laws about migration as he refers, yet these cannot be counted as laws but rather generalizations, however most of his generalizations can be said to remain valid even today. The following is the summary of Ravenstein’s seven laws of migration (Ravenstein, 1889; Grigg, 1977, p.42):

- a) The immigrants choose to relocate toward the large commercial centers which are close by to them, that being the case the volume of migration is inversely proportional to its distance.
- b) The mobility of people takes place from rural areas to urban areas since urban areas are more attractive as they are in the heart of industry and trade.
- c) The cities are getting larger and larger with the effect of migration they are receiving and the gap of population among urban areas and rural areas is rising.
- d) Immigration to someplace and emigration to someplace are conversely associated with each other.

- e) Long distance immigration is more likely for male workers whereas women migrate to the short distance. Also, individuals in working life span have a larger likelihood of migration.
- f) With the improvements in transportation technologies, the volume of immigration increases as well.

Later, American sociologist Stouffer, in his work claimed that there is no direct link between distance and migration; rather, one can find a link between migration and opportunities. He declares that the appealing cities to an immigrant are the ones with more opportunities to offer, so immigrant population is directly proportional with the opportunities available at the destination, meanwhile it is negatively correlated with lack of opportunities at the origin. (Stouffer, 1940, p. 846-856)

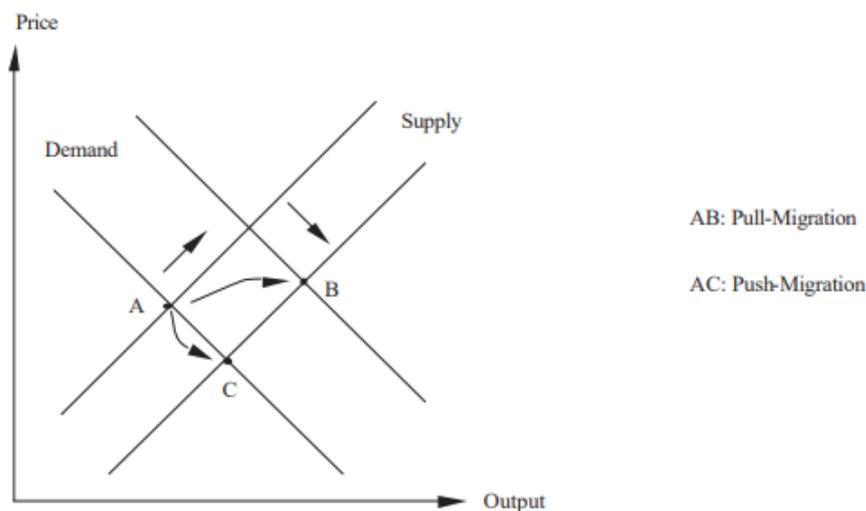
Another early migration theory was developed by Zipf, in his model Zipf states that the volume of migration diminishes as one moves further away from the point of origin, due to the obstacles that exist between the point of origin and the new destination. Hence, the model suggests that there is an inverse relationship between distance and volume of migration because the distance can be explained as the proxy of cost of the migration. However, population density and migration have a favorable relationship. (Zipf, 1946)

Everett Lee has formulated the push-pull theory which is one of the most visited theories even today to explain migration phenomenon, in his article "A Theory of Migration" written in 1966. In his study, Lee claims that, even though Ravenstein's work has been published for 75 years, most studies have been unable to move beyond referencing Ravenstein's work and explaining migration demographics. Lee declares that there are push and pull factors of migration which are opposites of each other. People are pushed to emigrate due to negative factors in their home countries. Positive aspects of the destination, on the other hand, attract immigrants. (Lee, 1966) While population growth, poor living conditions, lack of economic opportunity equality and political pressures are the push forces from the origin location; high labor demand, better living circumstances, political liberties are the pull forces from the destination. (Sert, 2016, p. 31) People consider these effects as motivating and discouraging factors when deciding whether to migrate. (Bodvarsson and Van den Berg, 2013).

Lee also identifies four basic variables that form the basis of the investigation. These four basic factors can be listed as: Place of residence-related factors, Factors related to the place to be

entered, obstacles and costs and individual factors. Even though migrants have a better understanding of the factors of the origin, this is not the case in the destination area. Under this situation, when it comes to the reception of migrants in a new area, there is always some uncertainty or lack of knowledge. As well these four factors are viewed in different ways depending on a person's stage in life. For example, for younger individuals job opportunities may be the primary motivation but the elderly may prefer a pleasant climate and high-quality health care. (Lee,1966)

Towards the end of 1990s, two German academics Bauer and Zimmermann have explained Lee's pull and push migration model with an economic approach, and they have studied the effect of pull-push factors on the economy with the diagrams of aggregate demand (AD) and aggregate supply (AS).



**Figure 2: Economy and pull- push migration**

Source: **Zimmermann, K. F.** 1994. "European Migration: Push and Pull." World Bank Economic Review, 8(suppl\_1), 313-342. and **Bauer, T., and Zimmermann, K. F.** 1999 "Assessment of possible migration pressure and its labour market impact following EU enlargement to Central and Eastern Europe". v. 3. Bonn: IZA

Zimmermann and Bauer analyzed pull-migration with domestic factors that influence AD curve and push-migration with domestic or international factors that influence AS curve.

As it can be seen from Figure 2, if the receiving country's aggregate demand rises, both output and prices (or wages) are increasing. This increase in aggregate demand leads to pull immigration shifting the AS curve from A to point B. In this situation, inflation is being held down by immigration and leads to an increase in the level of output.

Push migration, on the other hand, may occur even when AD curve shifts are not present. It can be caused simply by the AS curve moving upward or downward, because if the level of output

produced is increased, it may result in lower wages, while if the level of output is too low, it may result in unemployment, both of which can be seen as push factors from the origin. (Bauer and Zimmermann, 1999).

### Massey’s Classification of the Migration Theories:

In 1993, Massey et al. (1993) published a paper to systematically explain and integrate guiding theories about migration, in the study they had a subject-based approach to categorize the theories, with this drive they have classified the migration theories as: initiation of international migration and perpetuation of international migration.

MASSEY'S CLASSIFICATION OF THE MIGRATION THEORIES	
Initiation of International Migration	The Perpetuation of International Movement
Neoclassical Economic Analysis: Macroeconomics Approach: (Lewis, 1954), (Ranis and Fei, 1961), (Harris, Todaro, 1970) Microeconomics Approach: (Sjaastad, 1962), (Todaro and Maruszko, 1987), (Borjas, 1987, 1990, 1991)	Network Theory: (Massey D. S., 1990; Massey, et al., 1993)
The New Economics of Migration: (Stark and Bloom, 1985)	Institutional Theory: (Massey, et al., 1993)
Dual Labor Market Theory: Piore (1979)	Cumulative Causation: (Massey D. S., 1990; Massey, et al., 1993)
World Systems Theory: Wallerstein (1974)	Migration Systems Theory: (Fawcett, 1989; Zlotnik, 1992)

**Figure 3: Massey’s classification of migration theories**

Source: Massey D. S., Arango J., Hugo G., Kouaouci A. Pellegrino A. and Taylor J. E.. 1993. “Theories of International Migration: A Review and Appraisal”. Population and Development Review. Volume 19(3): 431-466 and own elaboration

## **Initiation of International Migration:**

### ***Neoclassical Migration Theories:***

According to neoclassical migration theories migration movements are the results of geographical variations in labor supply and demand. The theories of neoclassical migration can be examined under macroeconomic and microeconomic perspectives. (Massey, et al., 1993)

If we ask people for what reason they migrate, the response would make reference to microeconomic models indicating the decision process for migration. However, if we want to understand the migration movement's direction, then macroeconomic models are addressed to determine the flows of migration. (Etzo, 2008)

- **Macroeconomic Neoclassical Migration Theories:**

According to neoclassical macroeconomic views, the term migration is a consequence of differences in wages among different geographical regions and the flow occurs from low wage regions to high wage regions.

Macroeconomic neoclassical migration theories have questioned mainly migration movements from rural areas toward urban areas. For instance, Lewis (1954) and Ranis and Fei (1961) have studied migration with the transfer of labor from rural to urban in the context of economic development. They claimed that migration mobilities are caused by the wage and employment disparities between the rural-agricultural and urban-industrial sectors.

Following the studies of Lewis (1954) and Ranis and Fei (1961), migration from rural areas toward cities in spite of increasing unemployment in the cities was studied by Harris and Todaro (1970). They have found that economic incentives, the possibility of higher pay and getting a job are the primary motivators for the migrants when making migration decisions.

- **Microeconomic Neoclassical Migration Theories:**

Microeconomic neoclassical migration theories suggest that migration occurs because individuals have the demand of maximizing the conditions and gains, they currently have. These theories are based on the assumption of rationality that the factors of production (in this case labor) are simply looking for the best location to maximize utility. However, emigrants incur some internal and external costs as a result of their migration decisions such as the cost

of relocating, living costs, adjusting to the new culture (new language, cuisine to learn), adjusting to the new labor market and psychological costs of leaving the loved ones behind. As a result, deciding to migrate is a trade-off between lower costs and higher benefits. According to the models based on these cost-benefit analysis, the positive net return from migration is expected by rational people and the volume of migration is determined by the size of expected benefits. (Massey, et al., 1993).

Migrating, in essence, can be thought of as an investment decision in human capital for someone who wants to make the most of their current benefits and circumstances. The investor who decides for the worth of his/her human capital (in this case labor income) is assumed to be the migrant. According to Sjaastad, migration decisions are based on the relationship between labor income and human capital investment. (Sjaastad, 1962) In this constrained approach, the migration is not only about the maximization of income but also it is a problem of human capital investment in which a potential migrant weighs the costs and benefits of moving. Individuals compare and contrast the possibility of finding a work and prefer the choice that maximizes the present value of lifetime earnings. (Todaro, 1969; Todaro and Maruszko, 1987).

Borjas (1987;1991) as well-developed migrations which are similar to other models of migration with human capital investment that states the flow of people is influenced by the distribution of human capital among countries. In his studies, he has added some new components about the characteristics of migrants in such a way that the population size, demographic features, and distance are not the only factors that determine the individuals but also diversification by their personal characteristics, abilities, skill, and talent are all important considerations. These factors also do affect the migration flows. For instance, according to his approach, if the difference in expected earnings surpass the gain of less-skilled workers, high-skilled workers will be more likely to migrate.

Migrants are likely to face adaptation challenges to the host country's cultural, economic, and political environment. If migrants can demonstrate rapid integration to the host country, the participation in the labor force is affected positively. (Borjas, 1989) Also, economic growth contribution can be observed with the migrant workforces' rapid adaptation. (Borjas G. J., 1994).

### ***The New Economics of Migration:***

Based on a neoclassical framework, the new economics of migration proposes a new approach to migration studies. The most notable feature of this theory is that migration decisions, rather than being made solely by the immigrant, are made by larger groups of people with social ties to one another such as families, households. (Stark and Bloom, 1985) To alleviate relative poverty, families send workers abroad. According to the model, migration movements are generally from low-income countries to high income countries so that migrants who get better paid in host countries can send part of their income to home countries. So, in essence of the theory, the idea is that households try to mitigate the risk through diversification of income sources. The migration of one family member is primarily related to obtaining the maximum income possible to be able to transfer earned income to the family in the home country. Moreover, the migrants who send sources of income to home countries improve their standing in the reference community, which serves as a secondary motivation for migrants to immigrate (Stark and Bloom, 1985)

### ***Dual Labor Market Theory:***

According to dual labor market theory which is developed by Piore (1979) in post-industrial societies' labor markets there are two different sectors to be defined: first sector can be described as the sector which has high wage, regular and secured jobs on the other hand second sector can be represented by low paid, irregular and insecure jobs.

According to Piore's approach, the developed countries' internal and long-term labor needs is what drives international migration. That is to say, the host countries' pulling effect is stronger than the origin countries' pushing effects. Instead of focusing on income maximization, the theory considers the social context and specific characteristics of the available jobs for migrants. The demand for foreign employees arises from industrial economies' four basic qualities: structural inflation, economic dualism, motivational problems, and the demography of labor supply. (Massey, et al., 1993)

### ***World Systems Theory:***

World systems theory is a sociological perspective approach to international migration developed by Wallerstein (1974) which gives an explanation to migration in terms of the global world dynamics, in other words globalization. According to Wallerstein (1974), the capitalist

world dynamics causes changes in the structure of the periphery as a result the proportion of agricultural areas is decreasing, and cities are expanding significantly. The expansion in the cities and capital accumulation leads capitalist nations to seek low-cost labor aside from new raw materials which results in increased demand for migrant labor force. Hence, the possible migrant inflows to observe are generally from least developed countries to developing capitalist countries which seek for low-cost labor. Therefore, it could be said that the waves of migration are centered around global market economies: North America, Western Europe, and Japan. Another possible migration flow that can be explained by theory is from colonies to metropolitan areas inside the same country.

Moreover, according to Wallerstein the mobility of capital and labor are inextricably linked to each other. Because what drives economic globalization can be said as foreign direct investment which as a result creates migrant labor demand.

### **The Perpetuation of International Movement:**

#### ***Network Theory:***

The network theory of migration, proposed by American sociologist Massey, includes a dynamic aspect to the migratory process. Movement networks, according to his definition, are a type of social capital that reduces the risks and costs of migration while also increasing the expected outcome and revenues. These networks are made up between current and former migrants and as well with host communities. (Massey D. S., 1990a; Massey, et al., 1993;)

The core idea behind the theory is that international migration becomes more attractive when there are migrant networks already established since migrant networks have an effect to decrease the risks and costs of migration consequently increasing the outcome that can be achieved as well. The first-arrival migrants face situations riskier and they bear more costs in the absence of a network community since they have to handle all the difficulties by themselves. On the other hand, a new-comer migrant who can find a network community to consult can get the guidance he/she needs much easily hence would be able to cope with the risk and costs of migration with less effort. These network communities established between migrants can serve many different functions such as: information sharing, finding housing or work opportunities, financial assistance and so on. These communities significantly reduce the costs that could be incurred during the first migration process for the newcomers with their wisdom and experience of the earlier processes. As a result, it can be said that each

additional immigrant lowers the cost of future migration. In the long run, this causes the migration volume to increase. (Massey, et al., 1993).

***Institutional Theory:***

There is a mismatch between the number of people who attempt to migrate to rich-developed countries and countries limited migrant visa policies offered. This mismatch creates boundaries for people who try to migrate these nations with high welfare eventually leads to underground economy in migration. Many potential migrants are being victimized or exploited while trying to migrate to richer countries in the underground economies. Fortunately, these underground markets have led to establishment of many voluntary organizations and private institutions which support rights and legal treatment of these migrants. These institutions play a particularly important role in integration and adaptation of migrants to the host countries' social life and economy. They provide a variety of social services, counseling, and legal guidance to potential migrants, and they play a vital role in raising awareness and contributing to the development of effective migration policies for both migrants and receiving nations. (Massey, et al., 1993)

***Cumulative Causation:***

Aside from the expansion of networks and the establishment of institutions that support migrants, there are some other factors that continuously encourage migration movements overtime like a process which was later explained by Massey (1990b) as cumulative causation. According to cumulative causation, each and every additional action of migration adjusts the social situations in a way that following decisions about migration can be made.

One of the main factors that can be said that it creates cumulative causation effects is distribution of income. The motivation behind the migration decisions does not only depend on the aim to raise one's own absolute income but also to raise their income in comparison to the income of others in the one's own reference groups. The low-income families suffer from relative deprivation experiences. Those who start to feel overwhelmed with the relative deprivation of their income levels observe that the ones who have migrated eventually find themselves in superior positions in terms of income. Once households understand this sense of relative deprivation can be solved through migration to the higher income nations, the encouragement of sending workers to other countries increases as well to increase the income.

Hence, it can be said that the high-income inequality between non-migrants and migrants of one country accelerates the migration to other countries as non-migrants seize the opportunities of migration, in time relative deprivation decreases as a major part of the workforce joins the migrant workforce. (Stark and Taylor, 1989)

### ***Migration Systems Theory:***

The migration systems theory explains the migration phenomenon in terms of groups of countries, regions which are specifically migrant receiving countries or countries that sent large numbers of migrants abroad. According to the theory, these countries that are high ranked in receiving migrants or high ranked in sending migrants abroad are linked to each other in terms of political and economic relations.

Even though migration systems theory cannot be said as a separate theory but rather a combination of the existing theories, it nevertheless offers some intriguing hypotheses as below (Massey, et al., 1993):

- Just because migration flows show political and economic connections, the system's countries do not have to be geographically close to each other. Distance is not taken into account as a factor in the analysis even though exchange relationship formation is obviously aided by proximity.
- Migration systems can be possibly multipolar, a system that migrants from overlapping sending countries are received by a group of core countries that are scattered across the globe
- Countries do not necessarily have to be in one migration system but rather they can be involved in multiple migration systems, generally the nations that receive migration tend to be in numerous memberships.
- The migration systems do not have a stable, fixed structure; instead, they alternate and evolve over the time course with the changes in economic and political circumstances. These changes may lead countries to participate or abandon the migration systems

## **PART 2: The Effects of Migration on Labor Market:**

In the second section of the first chapter of this thesis work, the economic model of the labor supply and demand with immigrants will be examined by visiting the traditional labor supply and labor demand framework. The traditional “textbook labor economy” framework of labor supply and labor demand model provides us a clear picture of what are the potential impacts of foreign-born workers' entrance on the labor market of the host country. A detailed analysis of short-run and long-run effects of migration on the labor supply and labor demand curves will be conducted to understand how the level of employment and wages are changing with the new-income migrants in the host country's labor market.

Two crucial key concepts will be discussed which are substitutability and complementarity in the labor force among native and foreign-born migrant workers. The impacts of migrant labor force on the host country's level of employment and wages could be significantly different depending on how the relation among the native and migrant workers is viewed: either as perfect substitutes or complements (imperfect substitutes). Therefore, these two concepts will be viewed initially to be able to examine how they affect the traditional framework. Moreover, some empirical studies which examine the nature of native- migrant workers relationship in the sense of defining if they are perfect or imperfect substitutes will be addressed.

However, traditional frameworks in economic research, even though they provide a good intuition and base of understanding regarding the topic, are generally insufficient to provide an accurate reflection of reality because they are usually based on assumptions that are simplified. Therefore, after the effect of migration on the traditional framework of the labor market has been discussed, this part will also focus on some empirical findings regarding the effect of migration on host countries' level of employment and wages in the labor market. With the discussions of empirical studies, the fundamental assumptions to simplify the model will be loosened to get a better understanding of the reality of cases which changes by country to country with the different market conditions and different demographics of the migrant workers.

The end of this chapter will provide us with the necessary infrastructure to analyze how employment rates and salaries in the Turkish labor market, which is the main case of the thesis, have changed with the migration of Syrian refugees.

## **The Traditional Labor Market Framework Visited:**

### ***Native and Migrant Workers' Substitutability and Complementarity:***

To be able to conduct logical analysis of migration on the labor market, the two important key terms must be addressed before diving into the discussion of the traditional framework of labor supply and labor demand.

The elasticity of substitution in the labor force measures the degree of competence between the workers in our case between foreign-born migrant workers and local workers of the host country. If the workers are said to be perfectly substitutes, it means that they have the same level of skills hence they can compete equally for the same place of employment. When there are perfectly substitute employees in the labor marketplace, employers would not give attention to whether they hired a native or an immigrant worker, in other words they could be indifferent in hiring foreign-born or local workers. In the labor markets where the foreign-born and native workers are said to be perfectly substitutable, the entrance of the migrants to the labor market increases the labor supply hence they may create potentially more competitiveness in the work marketplace which eventually may lead to reductions in the wage levels for both migrant and native workers. Generally, we can classify workers who work in the same industries, especially in low skilled positions as perfect substitutes for each other.

On the contrary, if the elasticity of substitution is low between the two types of workers (migrants and natives), they cannot be perfect substitutes for each other. That means, they do not compete for the same job positions since their job skills do not equal or they have different levels of expertise. In this situation, employees are not indifferent in hiring either migrant workers or native workers, they hire simply those who have the enough skill set for the job position. Therefore, when the workers are not perfect substitutes, entrance of migrant workers to the marketplace -although it increases the labor supply- does not necessarily affect the wages of other workers due to lack of competitiveness between them.

When the elasticity of substitution between migrant and native workers is low, they might complement each other in the workplace in the sense that they may intensify and accentuate each other's qualities. In this case, the existence of the migrant workers in the labor market could benefit the complement native workers too. Because when the demand for migrant workers increases, the demand for complementary native workers would increase as well.

***Traditional Labor Market Framework:***

To understand how migration influences the labor supply and labor demand curves, a brief overview of labor market fundamentals will be provided.

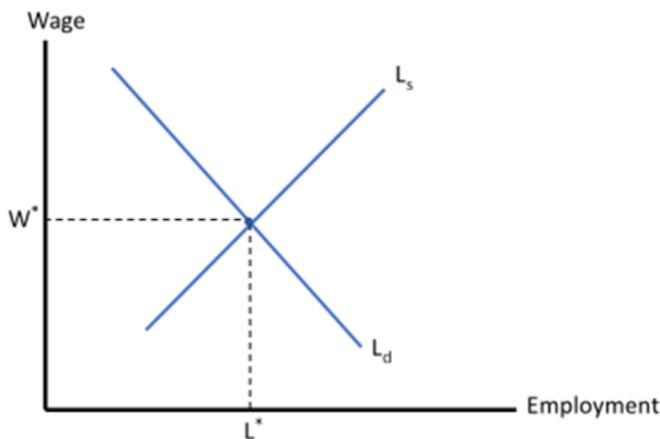
The labor market, like all other components of the market economy, is made up of supply and demand functions. A labor supply curve depicts the number of workers who are able to and willing to work in a certain occupation at various wage levels whereas a labor demand curve depicts the amount of people that businesses are able to and willing to hire at various wages. The interaction of the two curves (labor supply and demand) yields to the labor market equilibrium which displays the employment level and the wage rates in the labor marketplace for the specific region. The corresponding graph shows the economic model of the labor market equilibrium as interaction of the labor supply and labor demand curves where:

Ls: Labor Supply

Ld: Labor Demand

W\*: Equilibrium Wage

L\*: Equilibrium Employment



**Figure 4: Traditional labor market framework**

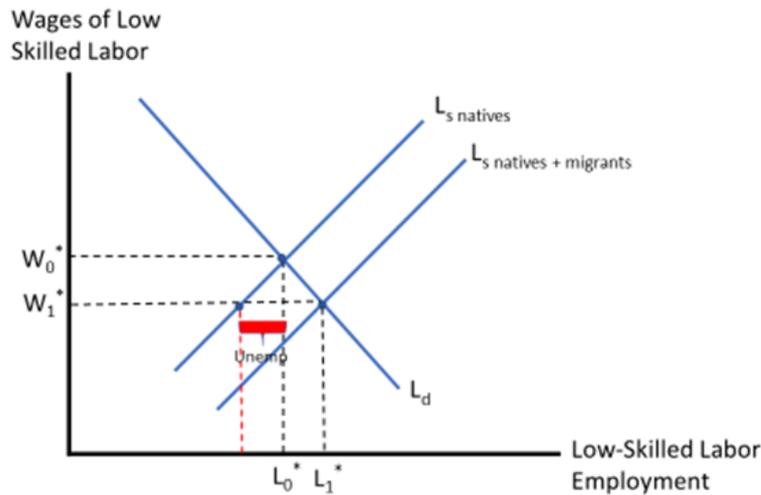
Source: Personal elaboration

***Traditional Labor Market Framework Where Immigrants and Natives are Perfect Substitutes in the Short run:***

Using the classic labor market framework, we can do in-depth analyses of how migration affects the labor market and affects the employment and wage levels of migrants in the host nation. Since the substitutability and complementarity of the migrant and native labor forces might affect our study, we shall conduct it independently for each situation.

Starting with the first situation, in which migrants and native employees are perfect substitutes for each other, we will make the following assumptions in order to conduct our graphical analysis:

- a) We assume that migrant workers and native workers are ideal alternatives for one another, and both of these labor groups are equally capable of performing the same work and they are both hunting for the same employment openings. Namely, they are perfect substitutes.
- b) Unskilled local workers and unskilled migrant workers are often perfect substitutes to one another. Since the case of this thesis is focusing on the Turkish labor market and the majority of the migrant groups consist of refugees in Turkey, which will be explained in the following sections of this thesis, the perfect substitution between migrant workers and local workers in the Turkish market can be characterized from a point of unskilled labor.
- c) We assume that migrant receiving countries have greater scientific and technological potential, as well as higher labor productivity, than migrant workers' home countries.
- d) The main reason for the existence of migrant workers in the marketplace is primarily due to wage disparities between home and host countries.
- e) Finally, in order to simplify the analysis, we assume that the migration process is free of charge and that there are no limits on labor resource mobility between countries.
- f) Lastly, considering that the following analysis will be conducted in the short run, we assume that production solely depends on the labor resource, hence the quantity of capital is fixed.



**Figure 5: Traditional labor market framework in the short run where migrants and natives are perfect substitutes**

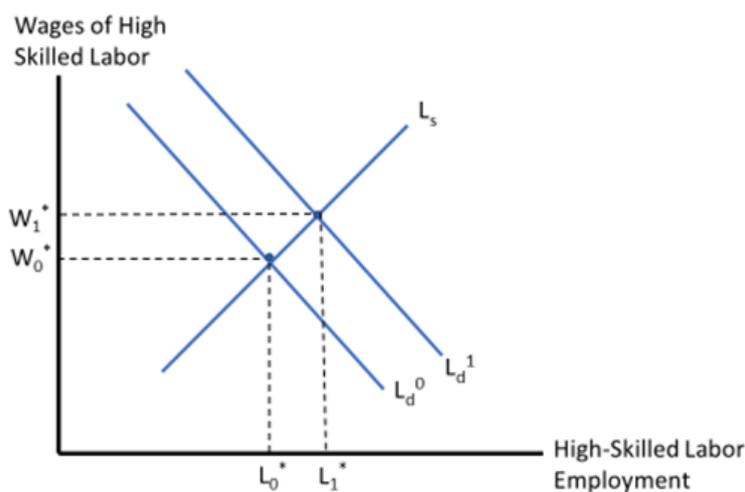
Source: Personal elaboration

Under our assumptions, we can see from the Figure 5 graph that in the initial situation where the migrants have not participated to the workforce, the equilibrium of wage and employment are  $L_0^*$  and  $W_0^*$  where labor supply curve described as  $L_{s \text{ natives}}$  and labor demand curve described as  $L_d$ . The entry of migrants boosts labor supply in the host country's low skill labor marketplace, causing the labor supply curve to move out from  $L_{s \text{ natives}}$  to  $L_{s \text{ natives} + \text{migrants}}$ . This shift in the labor supply curve results in a new labor market equilibrium, with the equilibrium pay level diminishing from  $W_0^*$  to  $W_1^*$  and employment level increasing from  $L_0^*$  to  $L_1^*$ . This fall in wage levels demonstrates that migrant unskilled workers are willing to accept occupations with lower pay levels than native unskilled workers. However, because of the presence of unskilled migrant workers in the labor market, this new wage equilibrium, which is lower than the initial wage equilibrium, will cause some unskilled local workers to be hesitant to work at this equilibrium wage level. As a result of certain unskilled native workers' unwillingness to work at the new equilibrium wage level  $W_1^*$ , there will be some voluntary unemployment among unskilled native workers who were willing to work at initial wage equilibrium  $W_0^*$  as shown in Figure 5 reverting to the initial supply curve for native employees. Consequently, even though total employment in the host country's unskilled labor market increases, the employment of the unskilled native workers will decrease which can be explained as unskilled migrants snatching positions from unskilled local workers. This represents the negative effect of migration on the low-skilled labor market of the host country.

***Traditional Labor Market Framework Where Immigrants and Natives are Complements in the Short run:***

Continuing our in-depth analysis using the classic labor market framework, we can now examine the situation where the migrant and native workers are complements in the labor market. To conduct our analysis we make the following assumptions:

- a) We assume that all or the majority of the migrants are unskilled workers, as in the Turkish labor market where the majority of the migrant groups are the refugees who will be indicated in the following sections of this thesis work.
- b) Unskilled migrant workers are complements to high-skilled native workers hence it is not expected that they are going to compete for the same job openings because they are not capable of performing the same task due to low elasticity of substitution.
- c) We assume that migrant receiving countries have greater scientific and technological potential, as well as higher labor productivity, than migrant workers' home countries.
- d) The main reason for the existence of migrant workers in the marketplace is primarily due to wage disparities between home and host countries.
- e) Finally, in order to simplify the analysis, we assume that the migration process is free of charge and that there are no limits on labor resource mobility between countries.
- f) Lastly, considering that the following analysis will be conducted in the short run, we assume that production solely depends on the labor resource, hence the quantity of capital is fixed.



**Figure 6: Traditional labor market framework in the short run where migrants and natives are complements**

Source: Personal elaboration

Under our assumptions above, as we can see from the Figure 6 graph that the initial situation where the migrants have not participated to the workforce, the equilibrium in the high-skilled labor market of the host country is  $L_0^*$  and  $W_0^*$  where the labor supply curve described as  $L_s$  and labor demand curve described as  $L_d^0$ . With the entry of the unskilled migrant workers to the host country's labor market, there cannot be observed any labor supply shifts as we observed in Figure 5 where the migrants and natives were perfect substitutes because the extra supply of the unskilled laborers does not affect the supply of high skilled labor market. However, with the entrance of the unskilled labor to the labor market who are complements to the high-skilled native workers, as the employment in the low-skill labor market increases, the demand for high-skilled labors as complements increases as well. The demand for skilled labor shifts from  $L_d^0$  to  $L_d^1$  and this shift in the demand curve generates the new equilibrium in the high-skilled labor market in the host country which is  $L_1^*$  and  $W_1^*$ . As the demand for skilled labor increases in the host country's labor market due to the arrival of migrant workers, the high-skilled native workers interpret this increase in demand as new opportunities. Therefore, the native high skill workers will be more eager to improve their skills to get the higher quality jobs with better paid conditions. This will augment the productivity of the high-skilled native workers. But the group of workers who will be eager to improve their skills to get better paid jobs in the high demand for skilled labor environment will not be only high-skilled native workers. The low skilled natives will also be more motivated to improve their skills and shift to the high skilled labor market as now with the entrance of migrants the conditions in the high skilled labor market are more favorable and on the other hand in the low skilled labor market the severe competition challenges the market conditions.

To summarize, the consequences of migration in a host country's labor market, where the migration influx can be described as unskilled labor with low levels of education and competence, should be analyzed differently in the low skilled labor market and the high skilled labor market. In the low skilled labor market, where the unskilled migrant workers and unskilled native workers are perfect substitutes, the effect of migration for natives is negative as the wage levels decrease due to high labor supply. On the other hand, in the high skilled labor market where the unskilled migrant workers and high skilled native workers are complements, the existence of unskilled migrant workers create a positive impact in the market because it enhances the demand for skilled labor and consequently productivity of high skilled workers.

### ***The Effects of Migrants' Presence in the Host Country's Labor Market in the Long run:***

So far, we have looked at the short-run effects of migrant workers in the host country's labor market, distinguishing between substitutability and complementarity. We will now go into greater detail on how migration inflow affects the labor market of the host country as the period of migrants' existence increases.

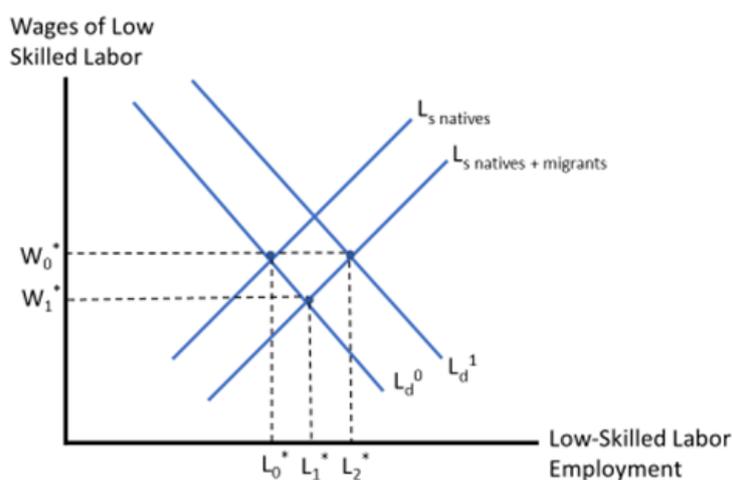
In the long run, we need to begin our analysis by loosening the one of the assumptions that we established in the short run which is that production solely depends on the labor resource, hence the quantity of capital is fixed. However, this text-book assumption in the long run is highly implausible, any economic insight is in contradiction with the notion that capital holders will keep fixed capital holdings. (Brücker, 2011)

Presenting the classical production function of Cobb-Douglas might be fundamental to understand why economic insights are in contradiction with fixed capital holdings as Brücker (2011) suggests. The equation of Cobb-Douglas production function as follows:  $Y = AK^\alpha E^{1-\alpha}$  where Y represents the overall level of output which is defined by the technology adopted (A), capital stock (K) and employment level (E) with the proportion parameter of  $\alpha$  ranging between 0 and 1. As shown in the equation, the return to scale in the Cobb-Douglas production model is constant, implying that the capital-labor ratio (K,E) remains constant over time. This constant returns to scale suggest that when one of the inputs of the production function changes, the other one adjusts itself in the long run as well.

Keeping the constant returns to scale of Cobb-Douglas production function in mind, we go back to the short-run effects in the host country's labor market of unskilled migrant workers influx where they were perfect substitutes with unskilled native workers. We know by now that wage levels decrease due to increase in the labor supply. The lower wages are perceived as advantages by employers which incentivize them to hire more workers at cheaper rates and boost profitability of the firm as labor related costs are decreasing. Consequently, the capital-labor ratio falls, making production more labor-intensive. As profits are increasing, the profit maximizing firms will start investing to adjust the capital stock until finally the initial capital-labor ratio before the migration influx has reached. (Brücker, 2011). Precisely, the Solow's (1956) growth model suggests the same outcome which in the long run, low cost of labor stimulates the capital investment and guides the economy to revert to its original capital-labor ratio and wage level. The duration of coming back to the original capital-labor ratio changes

from marketplace to marketplace. The duration of the adjustment of the new equilibrium may depend on variable factors of the economies such as whether labor-intensive industries can grow to accommodate the extra workers, openness of the economy which allows for import of capital to support increased labor force and how favorable the investment climate, how efficient the capital markets. The flexible, open economies which can expand to hold the additional labor and easily import capital to support the additional labor force with the favorable investment climate and capital markets can adjust the migration influx shocks much faster than the other economies. (Dadush, 2014)

The following graph Figure 7 demonstrates how the wage levels revert to their initial levels in the long run in the host country's low-skilled labor market, when unskilled migrant workers and unskilled native workers are perfect substitutes.



**Figure 7: Traditional labor market framework in long-run where migrants and natives are perfect substitutes**

*Source:* Personal elaboration

We have seen before entrance of unskilled migrants shifts the labor supply curve upward and establishes a new labor market equilibrium where wage level is  $W_1^*$  and employment level is  $L_1^*$ . In the long run, with the capital investments the capital stock entirely adapts and pushes labor demand to shift upward too. This upward shiftment of the demand curve is till the point the initial capital-labor ratio would be attained since according to the Cobb-Douglas production function, the scale of return is constant. At the long-run equilibrium, the wage remains unaltered from the initial point  $W_0^*$  it temporarily decreases to  $W_1^*$  but offset this fall in the long run by coming back to  $W_0^*$  canceling the negative impact of the migration on the low skilled labor

market. In the long run, overall employment in the low-skilled labor market rises as the market accommodates unskilled migrant workers and re-welcomes unskilled native workers who have become voluntarily unemployed due to wage decreases in the short term. In conclusion, according to the traditional labor market framework in the long run it can be said that the unskilled migration influx has no effect on the labor market in terms of wages whereas the market accommodates a higher labor force. Some empirical evidence from the United States and Germany confirms this argument, indicating that capital adjustment happens even in relatively short periods of time after a migratory inflow in labor markets, with returns to the initial capital-labor ratio taking only a few years. (Ottaviano and Peri, 2006; Brücker and Jahn 2008). There are also studies with more than one country's labor market focus that support that migration inflow into the labor markets works as a push factor of investments to reach the consistent capital-labor ratio. Ortega and Peri (2009) examined 14 OECD countries and found significant evidence that migration into the labor market is a push factor for further investments.

### **Empirical Studies on Wage and Employment Effect of Migration:**

#### ***From Perfect Substitution to Imperfect Substitution:***

So far, we have assumed that unskilled migrant workers are perfect substitutes for unskilled native workers, according to the traditional labor market paradigm. Since the assumptions under the traditional labor market framework are very strict, when the migrant and native workers have the same level of occupation qualifications they have been directly assumed as “perfect substitutes”, whereas the differences other than occupational competences between migrants and natives are completely neglected. Some of these variances could be attributed to migrants' culture, their language proficiency of the host country, their absence of social networks and lower income expectations. Beside these differences they can be also victims of discrimination by native job givers. With all of these variations, it is only more logical to label migrant and native workers who have the same occupational qualifications as “imperfect substitutes” rather than “perfect substitutes” as textbook economics suggests under assumptions. In this case, the level of how different the migrant and native workers who have the same occupational skills are determines the level of “imperfect substitutes”.

Much empirical research has investigated the imperfect substitutivity of unskilled migrant and native labor. Empirical studies of the elasticity of substitution between migrants and natives are

often constructed by estimating the production function (where production is defined as the input of capital and labor) with explanatory factors such as education level, gender, origin, experience, and so on. Empirical evidence from many labor markets with high migrant/native worker ratios exists to demonstrate that migrants and natives are imperfect substitutes. Ottaviano and Peri (2008) have studied the effects of migration in the US labor market in which they highlighted the elasticity of substitution among migrant and native workers and found important evidence that they are imperfect substitutes as they found in their research considerable degree of imperfect substitution among migrant and native workers who are in the same education-experience group. Their study showed that the wages of migrant workers in the industries where migrant workers offer higher percentage of the working hours, migrant employees' pay are still consistently lower than native workers earnings which can be explained by imperfect substitution. Manacorda et al. (2006, 2011) have found similar findings like Ottaviano and Peri (2008) in the UK labor market which has seen a massive increase in immigration over last forty decades but has not gone through noticeable changes on the wage and employment of the natives which they explained as being possible due to assumption of imperfect substitution of migrant and native workers in the production. Similar findings implying that migrants and natives are imperfect substitutes have been confirmed in another key labor market, Germany, which employs a large number of migrants. (Brücker and Jahn, 2011)

### ***Empirical Analysis of the Impact of Unskilled Migrants on Host Countries' Labor Markets:***

Earlier in this chapter's first part, it has been examined within the traditional labor market framework how migration affects the wages and employment levels of the host country. Although the traditional framework provides a good intuition it is not enough to understand the accurate reflection of reality. Therefore, in this part we will be addressing also the empirical literature on how wages and employment levels in the domestic labor markets are affected by the migration influx.

Majority of the migration studies in the literature is focused on how the migration affects the low-skilled labor markets in the host countries, in other words low-skilled natives, as the skill-set of the migrant workers are generally classified as unskilled or low-skilled. For instance,

according to OECD report <sup>2</sup> migrants in EU countries are more likely to be undereducated in comparison with the natives. Despite the fact that the proportion of highly educated migrants is increasing across the EU and the OECD throughout the past decade, the native-born education level on the other hand has grown even faster. Turkey as an OECD country and main market of this thesis hosts a migrant profile which is also less educated than the native-born population too.

The most important empirical studies on how unskilled migration affects the host country's labor market do not always provide the same results, it is crucial to compare and contrast these findings since they can give valuable insights about how the Turkish labor market will be affected by the migration influx.

Card's study on the Mariel Boatlift, a mass migration from Cuba to the Miami area, is one of the earliest empirical studies in the field on how migration affects native wages. The percentage of migrants in the Miami region has increased dramatically as a result of this occurrence, yet there has been no change in wage levels or unemployment levels in the market; instead, the market could handle low-skilled migrants instantly. However, he claims that the labor marketplace was able to accommodate the low skilled Cubans due to presence of industries. (Card, 1990) Even though this study is old, it may be relevant to our research because Cuban migration was led by political rather than economic causes, similar to how Syrian migration to Turkey was prompted by Syria's issues rather than Turkey's economic attraction to Syrians. Furthermore, this research demonstrates how significant the labor market characteristics of the receiving country are in determining whether the flood of migrants can be accommodated.

Previous empirical research tried to see if migrant influx was beneficial or damaging to native employees by comparing regions where migrants make up a high and low percentage of the population, which can also be referred to as area studies. The findings of these classic area studies are typically consistent, indicating that migration leads to a minor fall in native wage levels, which we can include in Altonji and Card (1991) and Butcher and Card (1991). However, these studies had endogeneity problem since migrant workers by nature already chooses the locations in the host countries where the wage rates are higher and unemployment rates are lower, the comparison of the wages with simple regression models between areas

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<sup>2</sup> **OECD/European Union.** 2018. "Settling In 2018: Indicators of Immigrant Integration" OECD Publishing, Paris/European Union, Brussels

where foreigner share is higher and lower might not have led the right effects of the migrants in the labor market. Borjas (2003) questioned this early research, arguing that early traditional area studies comparing and contrasting the wages of areas with high and low migrant share failed to remove the bias that caused their conclusions to be downward by finding a little effect on wages. However, when the distribution of migrants among the host country's regions is driven by political rather than economic factors such as in Turkey, where migrants live in regions where salaries are already low and unemployment is already high, area studies may be useful. In the following chapters of this thesis, we will show that migrants primarily live in Turkey's eastern cities, where wages are low and unemployment is already high, because such places are closer to the Syrian border, rather than for economic reasons.

On the other hand, Borjas (2003) in his paper where he criticizes the area studies there are modest effects of the migration influx on the native wages found that the influence of migration on the wage levels are much higher than what earlier area studies suggests. In his study, he used migrant's differences in education and work experience rather than regional differences to examine the migrant influx effect on wages in the US, in this way the endogeneity problem of the area studies were reduced. In his simple regression analysis, he discovered that 1% grow in migrant proportion of the population, lessens the wages of unskilled native workers by 0.3-0.4% whereas the area studies were suggesting 1% grow in migrants share of the population, diminishes the wages of unskilled native workers who are high school dropouts by 0.1%. Throughout the study, Borjas assumes that unskilled migrant and unskilled native workers with similar age and equivalent experience/education are perfect substitutes. In his study, he also claimed that in environments where native unskilled workers' wages are negatively affected by the growing migrant share of the market, native unskilled workers may prefer to relocate to other regions where they are not going to be affected by the migration influx, such as from New York to Cleveland. The same conclusions were reached in a study undertaken by Aydemir and Borjas (2005) in Canada and Mexico, which used the same approach.

Despite the fact that Borjas' innovative approach, rather than area studies, provided a better solution in the literature, two Italian labor market economists, Ottaviano and Peri, later questioned his approach. In their study Ottaviano and Peri (2008, 2012), they assumed that unskilled migrant workers and native workers are imperfect substitutes even though they have unless similar age and equivalent experience/education unlike what suggesting Borjas (2003) in his paper which we have mentioned already in the previous part of this thesis from “perfect

substitution to imperfect substitution”. Moreover, instead of focusing only on the imperfect elasticities between unskilled foreign and unskilled native workers, Ottaviano and Peri have also looked at the cross elasticities between all sorts of employees. Another significant difference between Ottaviano and Peri’s studies and Borjas's is the assumption of capital stock adjustment over time in their analyses. Borjas in his study considered that the capital stock maintains constant over time with the migratory influx, however Ottaviano and Peri claimed that the capital-labor ratio remains constant over time. Because of these discrepancies in assumptions between Borjas' studies and Ottaviano and Peri's studies, Ottaviano and Peri’s conclusions diverge dramatically from Borjas' studies. Unlike Borjas they did not find significant negative effects on the native’s wages by the migration, instead they discovered that there is a small negative effect by -0.7% on the wages of the unskilled workers with no high school degree in short run, whereas in the long run they found that existence of migrants in the labor market has a small positive effect 0.3% on the wages of unskilled workers with no high school degree.

## **CHAPTER 2:**

# **THE OVERVIEW OF IMMIGRATION WORLDWIDE AND IN TURKEY**

## **THE OVERVIEW OF IMMIGRATION WORLDWIDE AND IN TURKEY:**

In the second chapter of this thesis, we are going to go into detail and provide an overview about the recent migration trends worldwide and we will provide detailed background about how Turkey has become today's first destination for the migrant influxes particularly from the conflict zones. We will also give the required information and statistics to comprehend migrant demographic profiles in Turkey, allowing us to build the third chapter of the thesis, in which we will investigate in detail how migration affects the Turkish labor market.

### ***An Outline of The Global Migration:***

Migration is defined as the population movement in which people move regardless of its duration, reasons, and structure (International Organization for Migration, 2009). It can be short or long term, permanent or temporary. Those who leave from one settlement to go to another to live permanently at a certain time are considered to have migrated. Individual or mass migration may occur voluntarily by individuals or groups, or it may necessarily occur as a result of developments outside individuals' own will, in other words involuntarily.

Migration is characterized as forced migration or voluntary migration in terms of their reasons while legal migration (regular migration) or illegal migration (irregular migration) in terms of methods used to reach the destination country. Forced migration is occurs due to religious, political and ethnic pressures, disasters, terrorism and war where people are involuntarily leaving their where they live. On the other hand, voluntary migration is considered as leaving a place for economic reasons such as raising their living standards and welfare, working at high wages and in good conditions.

Migrations with official permits and roads are considered as legal migration (regular migration) while movements which do not comply with the laws of transit or destination countries are defined as illegal migration (irregular migration) (İçduygu & Aksel, 2012).

	2000	2020
Estimated number of international migrants	173 million	281 million
Estimated proportion of world population who are migrants	2.8%	3.6%
Number of migrant workers	-	169 million
Number of refugees	14 million	26.4 million

**Figure 8: Some key numbers about international migrants, migrant workers, and refugees**

*Source:* Personal elaboration based on IOM UN's World Migration Report 2022<sup>3</sup>

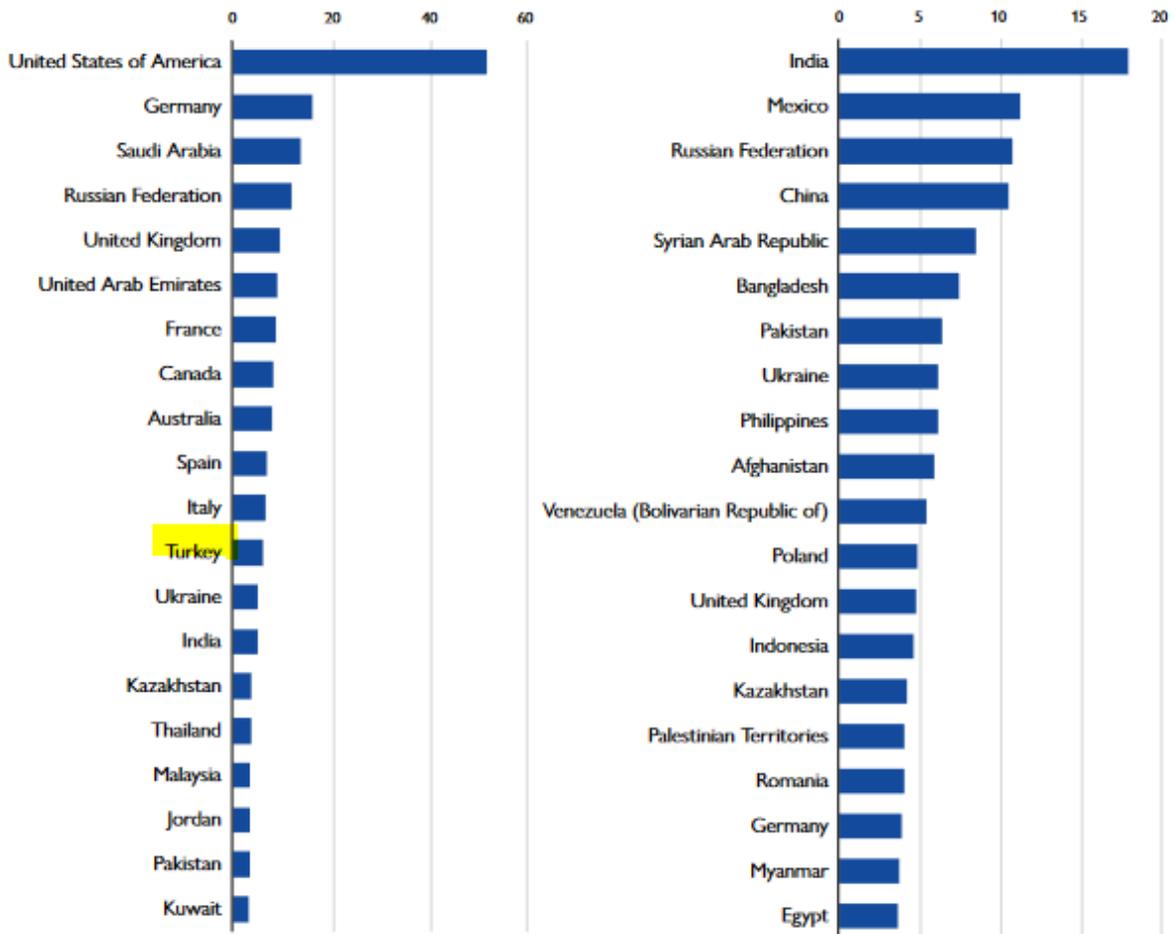
According to the United Nations' World Migration Report 2020, there were 281 million migrants worldwide in 2020, accounting for 3.6% of the global population, with 169 million working migrants and 26.4 million refugees. The number of international migrants reached 173 million in 2000, indicating a significant growth in the number of migrants over the previous two decades. The number of refugees also grew, nearly doubling to 14 million in 2000.

The numbers show us that people migrating either voluntarily or involuntarily have increased. The increase in voluntary migration can be explained by globalization and policies that make it easier to migrate. However, on the other hand we see also a large increase in the number of refugees which we can define as involuntary migration. The main reasons for the increased involuntary migration in the last two decades can be explained by:

- mass migrations from conflict and war zones such as from countries like Syria, Afghanistan, and recently Ukraine after the Russian invasion for safety reasons.
- increasing poverty and hunger as well causes lots for people to migrate involuntarily to other geographies which are relatively in better positions.

The migrants and refugees are trying to go to mostly high income developed countries such as the USA, Germany, France, Canada as we can see from Figure 9 below. The ones who cannot manage to go to developed countries, are going to developing countries which are closer by region to them or closer or easier to migrate due to relatively easier migration policies. The migrants are mostly from India, Mexico, Russia, China where the income inequalities are high therefore there are poverty issues and people migrate for better opportunities or from war or conflict zones like Syria, Afghanistan, Myanmar so they are forced to migrate.

<sup>3</sup> IOM UN Migration. 2022. "World Migration Report 2022". Geneva: International Organization for Migration



**Figure 9: Migrants’ top destinations (left) and origins (right) in 2020**

Source: IOM UN’s World Migration Report 2022<sup>4</sup>

As we can see from Figure 9, Turkey is one of the top destinations for migrants as well. In the next part of this chapter, we are going to focus on Turkey’s story with the phenomenon of migration.

***Turkey's Migration Story: A Brief Historical Overview:***

As its location Turkey has a unique place geographically being at the intersection of Asia, Europe, and Africa, therefore Turkey has always witnessed migration stories throughout the history. In this part of the thesis, we are going to mention some of the most important migration waves that involved Turkey historically and then we are going to focus on the latest migration waves which affected Turkey deeply socio-economically such as mass migration to Turkey from conflict zones (mostly Syria) and increased brain emigration from Turkey in the last decade.

<sup>4</sup> IOM UN Migration. 2022. “World Migration Report 2022”. Geneva: International Organization for Migration

After the Ottoman Empire collapse, the first migration movements the modern Turkey has witnessed was from the Balkan countries. Approximately 1.6 million immigrants, mostly from the Balkan countries such as Yugoslavia, Macedonia, Bulgaria, Greece, and Albania, came to Turkey between 1923- 1997. 75% of immigrants were placed with government programs and others settled into regions they wanted with the status of “voluntary immigrant”. Almost all of the voluntary immigrants settled in big cities, while the remaining minority preferred rural areas within the framework of agricultural resettlement projects (Doğanay, 1997).

Since the 1950s in Turkey, extensive internal migration has also emerged with the late industrialization and urbanization process (Kıray, 2007). In this period, serious changes and transformations in the social structure have started with modernization and industrialization processes of Turkish society, which generally involved an agricultural society. In this social structure change, in addition to the “push” factors of rural areas, the “pull” conditions of urban areas led to a significant population concentration in urban areas (Dücan, 2016). As most important “push” factors from the rural areas which are mostly in the eastern parts of Turkey, we can line up: inadequacy of job opportunities and services (health, education etc.) On the other hand, “pull” factors that make the western regions more attractive are: presence of industrial facilities, better economic and social conditions.

Factors such as security problems, large-scale development projects and displacements due to natural disasters have been added to internal migration phenomenon that has been going on for half a century in Turkey, as a result of terrorism in the Eastern and Southeastern Anatolia Regions since the 1980s. Especially between 1985-1996, due to the intensive terrorism, the settlements of many people living in these regions were changed either compulsorily or voluntarily (Hacettepe University Institute of Population Studies, 2006). Terror environment made many people left the region rapidly due to the lack of security of life and property, loss, or shrinkage of their current livelihoods.

It is also worth mentioning the labor migration flows from Turkey to more developed European countries like Germany and the Netherlands in the 1960s and 1970s. In the years following WWII, developed European countries were in desperate need of factory employees, and in the 1960s, governments reached agreements to send and receive labor migrants. These accords made it possible for Turkish workers to migrate to European countries. The majority of these Turkish worker migrants who immigrated to these nations as "guest workers" did not return to

Turkey and have settled there. Turkish origin people are now among the largest minority groups in nations such as Germany and the Netherlands.

Above, we have mentioned most important migration flows to Turkey and from Turkey (migration from Balkans, internal migration due to regional development differences, internal migration due to safety reasons, labor migration from Turkey to some European countries with agreements made between governments) We can see that historically Turkey has always been a country with a mix of migration and emigration historically. Yet still Turkey in net migration numbers till 2010 was always giving up a negative number which means it was primarily a country that gives migration, after 2010 it became a country that receives migration.<sup>5</sup>

Within the last decade most important migration flows in Turkey are mass migration to Turkey received from the conflict, war zones and brain emigration to other developed countries. Throughout the years the ability of Turkey to train and educate high skilled workers has increased; so the emigration from Turkey to developed countries can be observed as migration of university graduates -instead of low skilled labor migration as in the past- to continue higher education or look for high skilled job opportunities as Turkish labor market fail to provide/create enough high skilled jobs which we will explore more in detail in the “Turkish labor market overview” section of this thesis.

Recently, Turkey has become the destination of migration movements, most of which are forced migrations from the Middle East and Sub-Saharan Africa. In this respect, Turkey is known as a country of immigration, but besides being a destination country, a transit country definition has been made for Turkey. For example, the visa application for African immigrants imposed by the European Union as a condition for transit to Turkey to protect its borders can be given as the reason for Turkey becoming a transit country. (Fait, 2013).

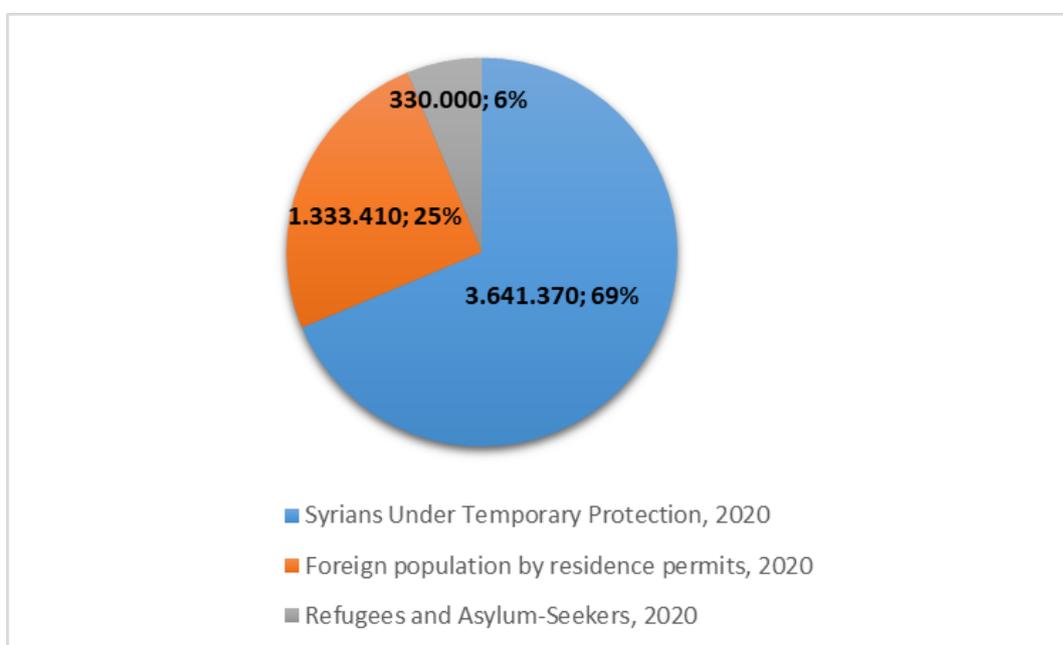
Migration movements from Asia to Turkey indicated that the search for welfare is at the root of the migration movement similar to Africa. In addition to political turmoil, Turkey hosts Asian immigrants who want to supply their labor at higher wages and who want to go to Western and Northern European countries by using Turkey as a transit country. Immigrants see Turkey as a bridge between Asia and Europe. Economic and political issues and security gaps in neighboring countries are among the reasons for migration from Asia to Turkey (İçduygu et al., 2014). Among those who immigrated from Asia, immigrants from Syria, Iran, Iraq, Azerbaijan,

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<sup>5</sup> **World Bank.** 2022. “Net migration- Turkey”

and Afghanistan have the most residence permits in Turkey, and the flexible visa regime implemented by Turkey significantly increases immigration from these countries to Turkey.

The statistics in Turkey regarding to foreign nationals is a bit complicated due to different terminologies used. There are a total 5.304.780 foreign nationals in Turkey by 2020. Syrian refugees are categorized as “Syrians under temporary protection”, not “Syrian refugees”. The Figure 10 below shows there are over 3.6 million Syrian refugees “under temporary protection” in Turkey in 2020, the refugees and asylum seekers from other nationalities are 330 thousand and there are over 1.3 million foreign nationals residing in Turkey which 281.074 of them are Iraqis, 158.252 of them are Afghans, 91.218 of them are Turkmens, 88.907 of them are Syrians and 68.561 of them are Iranians.<sup>6</sup>



**Figure 10: The number of foreign populations by residence permits, Syrians under Temporary Protection and Refugees and Asylum-Seekers in 2020 in Turkey**

*Source:* Personal elaboration based on TURKSTAT data<sup>7</sup> and UNHCR Turkey - Fact Sheet September 2021<sup>8</sup>

Since the majority of the foreign nationals in Turkey are “Syrians under temporary protection” with 69%, we are going to focus on the Syrian refugees and the effect of their participation in the Turkish labor market in this thesis.

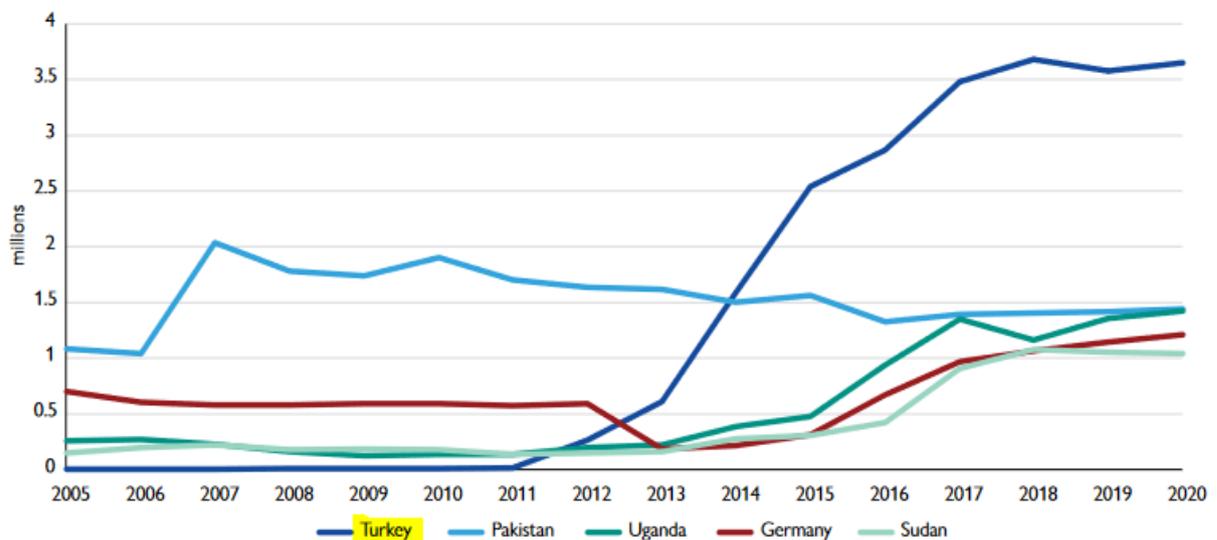
In 2011, Arab spring protests in Syria started the still-ongoing civil war. The unsecure environment in the country has put many Syrians at risk which has forced them to leave their

<sup>6</sup> TURKSTAT. 2020. “The Results of Address Based Population Registration System”

<sup>7</sup> TURKSTAT. 2020. “The Results of Address Based Population Registration System”

<sup>8</sup> UNHCR Turkey. 2021 “Fact Sheet September 2021”

countries and seek protection. Even though it has been a decade that the civil war in Syria has started, the conflicts still could not be solved which makes it harder for the Syrians to go back to their countries from the host countries as they try to build themselves new lives. The number of Syrians that have immigrated to seek protection to neighboring countries or more developed countries like EU countries, US has reached around 6.7 million.<sup>9</sup> As now Turkey has always taken a big responsibility for the Syrian people who are seeking for protection and the country sustained its “open-door policy.” Due to the “open-door policy” and geographical closeness of Turkey, Turkey has become the first-choice country Syrians were trying to reach. Today, Turkey is hosting more than half of all the Syrian refugees worldwide following with the other countries such as Lebanon, Jordan, Iraq, and Egypt. The Syrian Arab Republic – Turkey is the second largest migration corridor in the world just after the Mexico- United State migration corridor. In the last decade, Turkey has become the country that hosts the largest number of refugees in the world with around 4 million refugees.<sup>10</sup> It is impressive and important to note how a country that used to have negative net migration numbers until 2010 has become the country that hosts most of the refugees in the world today.



**Figure 11: Top five countries that host the most refugees in the world with the numbers as of 2020**

Source: IOM UN’s World Migration Report 2022<sup>11</sup>

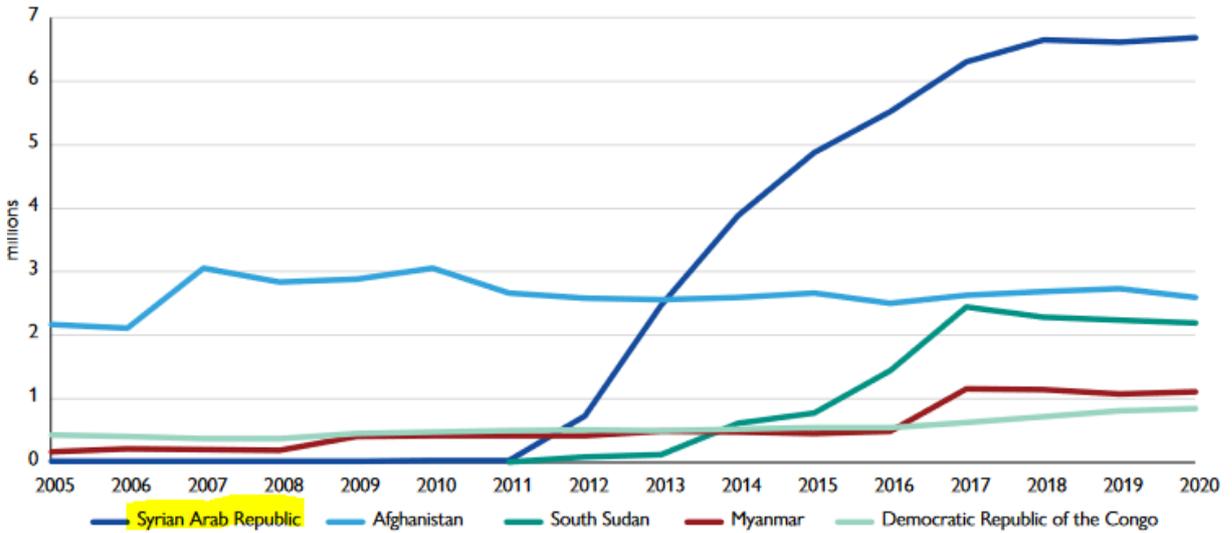
As we can see from Figure 11, Turkey is the country that hosts the largest number of the refugees in the world following with Pakistan, Uganda, Germany, and Sudan. We can see from

<sup>9</sup> IOM UN Migration. 2022. “World Migration Report 2022”. Geneva: International Organization for Migration

<sup>10</sup> IOM UN Migration. 2022. “World Migration Report 2022”. Geneva: International Organization for Migration

<sup>11</sup> IOM UN Migration. 2022. “World Migration Report 2022”. Geneva: International Organization for Migration

the graph that till 2011, Turkey was not a location for the refugees at all. After 2011, with the civil war in Syria and the “open-door policy “being executed by the Turkish government made the country pass other refugee hosting countries by 2014 and since then Turkey is the largest refugee hosting country in the world.

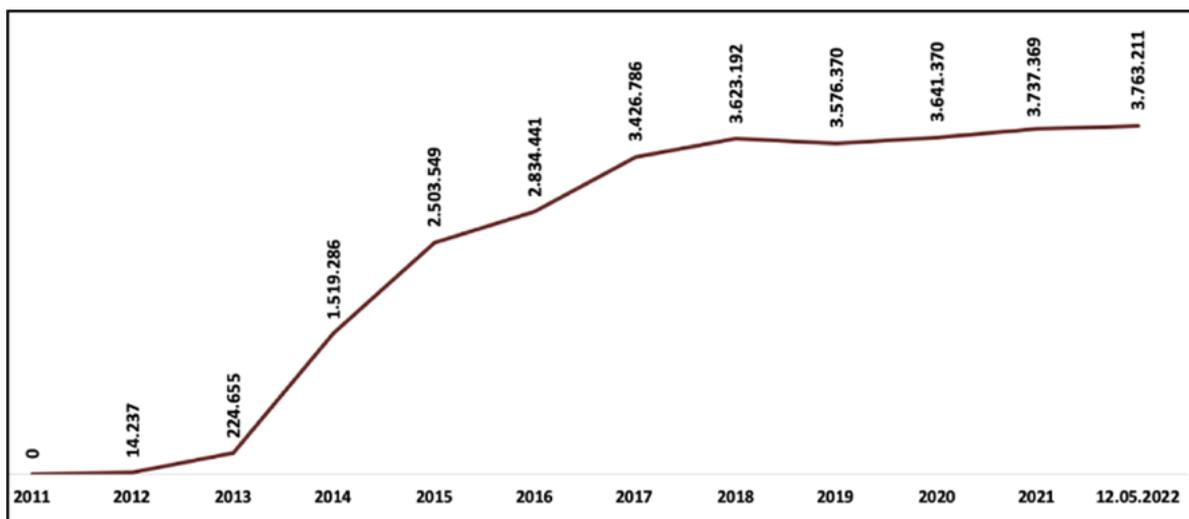


**Figure 12: Top five countries of origin by the number of refugees (2005-2020)**

Source: IOM UN’s World Migration Report 2022<sup>12</sup>

From Figure 12, we can see the number of refugees by their origins between the years 2005-2020. Until 2011, there were almost no refugees from the Syrian Arab Republic. After the civil war started in 2011, we can see that there has been a massive migration from Syria to other neighboring countries, mostly Turkey. By 2013, the Syrian Arab Republic passed other refugee giving countries and became the country that most of the refugees come from in worldwide with other countries like Afghanistan, South Sudan, Myanmar, and Democratic Republic of Congo.

<sup>12</sup> IOM UN Migration. 2022. “World Migration Report 2022”. Geneva: International Organization for Migration



**Figure 13: The total number of Syrian refugees (Syrians under temporary protection) in Turkey by years (2011-2022)**

Source: Presidency of Migration Management. 2022. “Temporary Protection Statistics”<sup>13</sup>

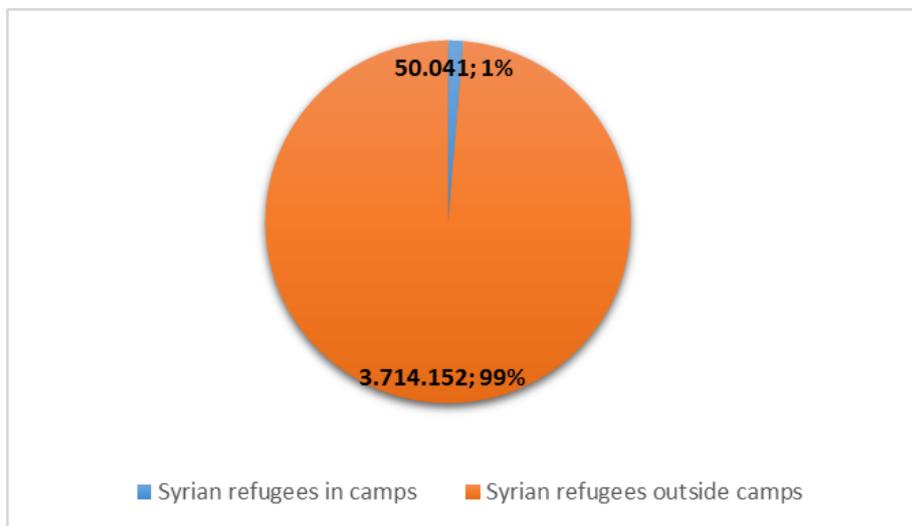
By 2011, in the first year of the civil war, only a very small number of refugees came to Turkey. After that, the number of refugees arriving has gradually increased, reaching over 1.5 million by 2014, 2.5 million by 2015 and 3.7 million by the middle of 2022 as announced recently by the Presidency of Migration Management.

The Syrian refugees who came to Turkey did not necessarily come for better work or living conditions that Turkey offers such as the case for the migrants immigrating for the developed nations for better opportunities and higher wages; they simply came for the more primitive needs: the need of safety, security and shelter and not by the motive of looking for occupation primarily. (Aksu et al., 2018) When the refugees arrived to Turkey initially, the large sum of them arrived from cities like Aleppo, Ar Raqqah, Lattakia and Idlib to the eastern Turkish cities like Gaziantep, Hatay, Şanlıurfa, Adana, Mersin and Kilis which are close to Turkey-Syria border, thinking that their stay is only temporary. (Aracı et al. 2021). They have been settled in refugee camps established by the Turkish government and hosted there in these camps. Initially, majority of the refugees were living in these camps, however as the time passed and realizing that the civil war in Syria has only got worse, the refugees in the camp areas started to leave those camps and move to the urban areas where they could find jobs, get education, access to health services, psychological assistance etc. which are the rights that were secured by “temporary protection rights”.<sup>14</sup>

<sup>13</sup> Presidency of Migration Management. 2022. “Temporary Protection Statistics”

<sup>14</sup> UNHCR Turkey. 2022. “Temporary protection in Turkey”

Today, only %1 of the Syrian refugees is still living in refugee camps settled up close to the Turkey-Syria border as we can see from Figure 14.



**Figure 14: The number of Syrian refugees who leaves in and outside of the camps by 2022 in Turkey**  
*Source: Presidency of Migration Management. 2022. “Temporary Protection Statistics”<sup>15</sup>*

As the long-running civil war in Syria continues on, Syrian refugees in Turkey have transformed from camp refugees to urban refugees, with the likelihood of returning to their country diminishing due to safety reasons. Many of these refugees have chosen industrialized Western provinces of Turkey to settle down, these provinces are currently home to a considerable number of refugees. The main motive for refugees to migrate to these industrialized western provinces is for job possibilities, but also the closer they are to Western provinces, the more likely they are to migrate to European countries. (Aracı et al. 2021) There are a substantial number of refugees who want to utilize Turkey merely as a transit country and not as a permanent residence. As a result, for some people, being in the Western cities is crucial, even if they could find employment opportunities in the Eastern regions.

We can see from the Figure 15 below, the distribution of the Syrian refugees in the provinces of Turkey. The city that hosts most of the Syrian refugees in Turkey is Istanbul. As of today, the number of Syrian refugees hosted in Istanbul is 545.697 which accounts 15% of the total Syrian refugees. Other Western cities that host large numbers of Syrian refugees are Bursa,

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<sup>15</sup> **Presidency of Migration Management. 2022. “Temporary Protection Statistics”**

Izmir, Ankara, and Konya respectively 184.562, 149.962, 123.800 and 100.322. In total the 25% of the Syrian refugees are living in these big Western cities that are highly industrialized.

Still, the majority of the Syrian refugees are living in the Eastern cities such as Gaziantep, Hatay, Şanlıurfa, Adana, Mersin and Kilis respectively 463.663, 429.121, 425.938, 256.626, 243.650 and 109.687. An important thing to note here is that since the total population of the Eastern cities are lower than the Western ones in Turkey the percentage of the Syrian refugee intensity is much higher in Eastern provinces than Western ones. Such as in Kilis which is a small city close to the Syrian border, the Syrian refugees now account for 43% of the total population, in Hatay 20%, in Gaziantep 18%. Whereas in Western cities, for example in Istanbul it accounts only for 3% of the total population even though Istanbul is the city that hosts 15% of the Syrian refugees, in Bursa 6% and in Izmir 3%.<sup>16</sup>

As the intensity of the Syrian refugees is higher in the Eastern provinces in Turkey, we can expect the participation of the Syrian refugees into the Turkish labor market would affect these cities much more than the Western ones which we will examine in detail in the following chapter of this thesis work.



**Figure 15: Syrian refugee intensity by province in Turkey as of May 2022**

Source: UNHCR Turkey. 2022. “Provincial Breakdown Syrian Refugees in Turkey-March 2022”<sup>17</sup>

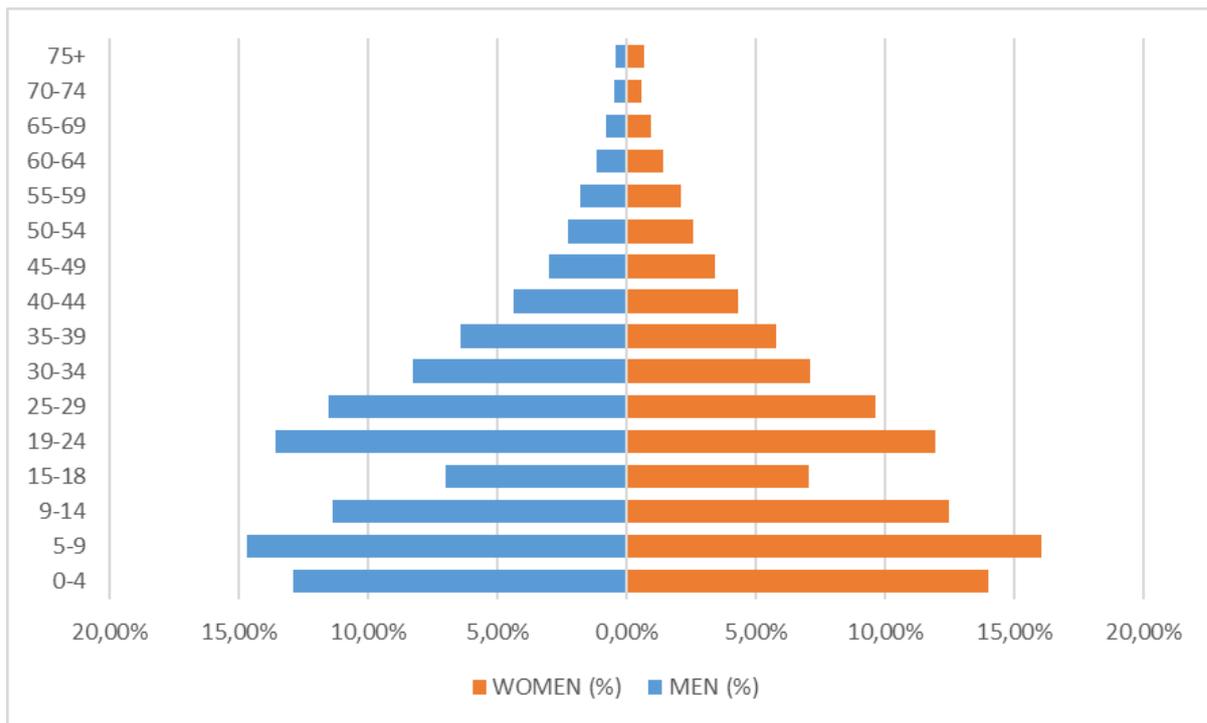
<sup>16</sup> Presidency of Migration Management. 2022. “Temporary Protection Statistics”

<sup>17</sup> UNHCR Turkey. 2022. “Provincial Breakdown Syrian Refugees in Turkey-March 2022”

### ***Socio-Demographic Profile of Syrian Refugees in Turkey:***

As we have examined in the previous part of this thesis study, there are around 3.7 million Syrian refugees under temporary protection in Turkey. It is also important to analyze the socio-demographic profiles of these Syrian refugees, as it is fundamental to understand their socio-demographic profiles to understand the possible effects of them joining to the Turkish labor market, which is the main target of this thesis, and it will be discussed in depth in the chapter 3 of the study.

Understanding the age groupings of Syrian refugees could be crucial in recognizing their needs and implementing policies that are appropriate. For example, elderly people may need more health services, people within working age may need employment services and children groups need more educational services. By looking at the age distribution we can also estimate the possible effects that may incur in the labor market, which is the main aim of the thesis work, as we can see the numeric of working age individuals.



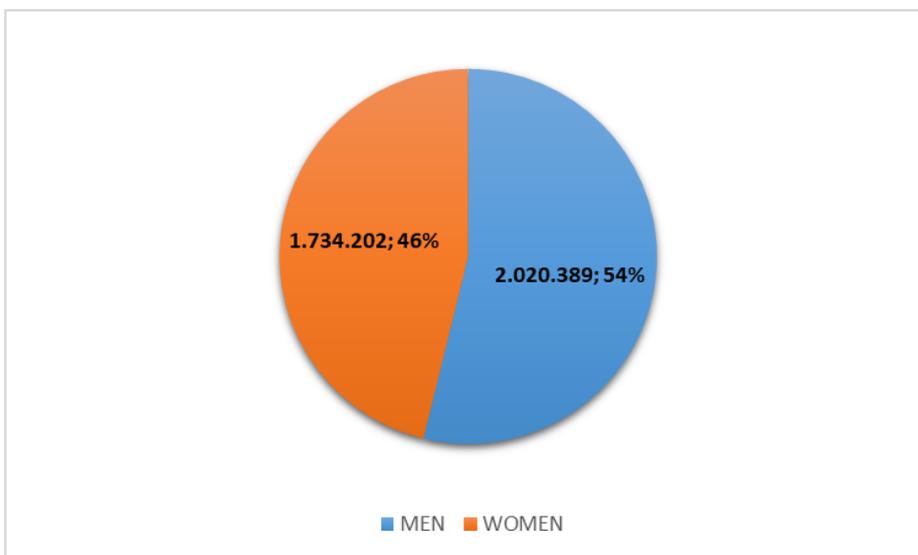
**Figure 16: Population pyramid of Syrian refugees in Turkey as of March 2022**

*Source:* Personal elaboration based on data provided by Ministry Interior of Turkey; Presidency of Migration Management statistics published on 24.03.2022<sup>1819</sup>

<sup>18</sup> **Refugees Association.** 2022. “Number of Syrians in Turkey April 2022”

<sup>19</sup> Presidency of Migration Management updates the “Temporary Protection Statistics” every month, in the last update they did not include age/gender distribution of the Syrian refugees under temporary protection, last time they provided age/gender distribution was 24.03.2022 which is available on Refugees Association April report but not any more on Presidency of Migration Management statistics.

From the above Figure 16, we can see that the distribution of children between the ages (0-4), (5-9), (9-14) is quite high which is around 40% this means that there is a huge need for nurseries and schools. Also, the age group (19-24) accounts for 12% of the Syrian refugees, it is crucial to be able to suffix them into the higher education services or labor market. Moreover, 57% of the Syrian refugees are between the working age hence the employment possibilities are critical in reintegrating them into society. The percentage of elderly persons is relatively low, which is to be expected given that the migration procedure is considerably more difficult for them, and they generally prefer to remain in their own country because they believe they do not have a long life ahead of them.

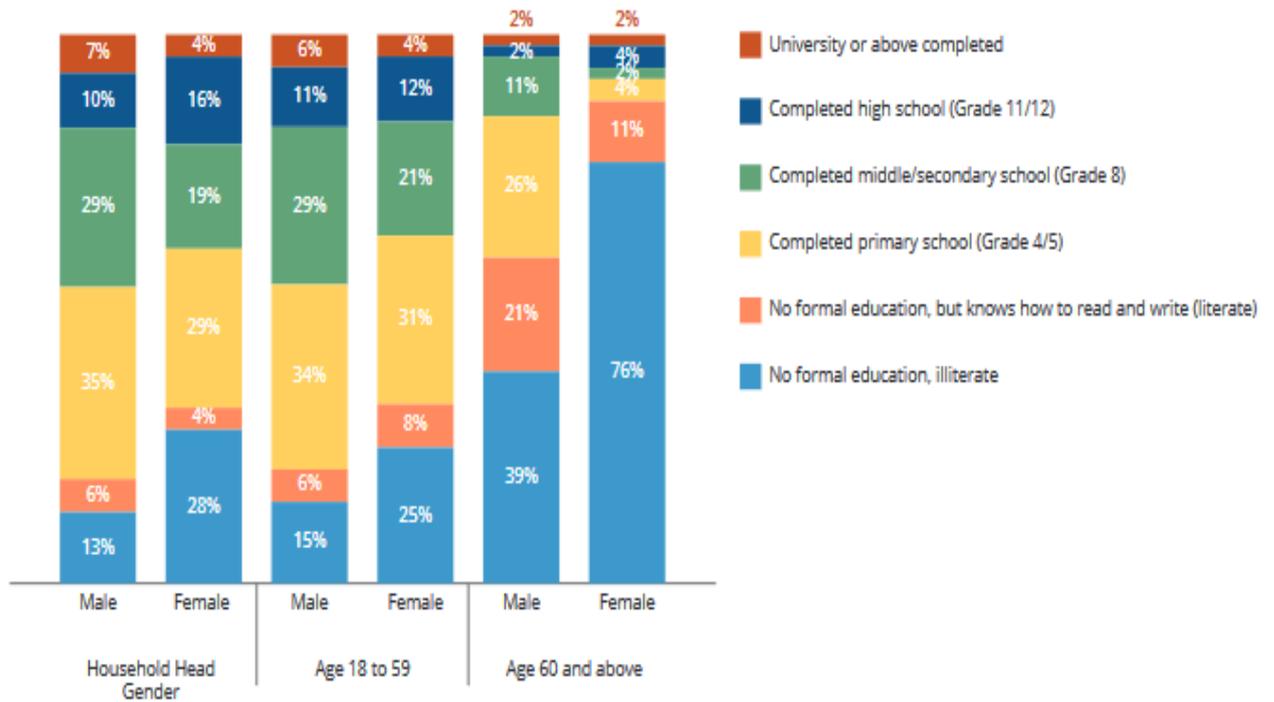


**Figure 17: Gender distribution of the Syrian refugees in Turkey as of March 2022**

*Source:* Personal elaboration based on data provided by Ministry Interior of Turkey; Presidency of Migration Management statistics published on 24.03.2022<sup>20</sup>

We can see the gender distribution of Syrian refugees in Figure 17 above. The men population is significantly larger than the women population, which can be explained by the fact that sometimes men refugees arrive alone in host countries and try to settle down, find housing, and work. After arranging all of this, they also try to bring their families from their home country to the host country.

<sup>20</sup> Refugees Association. 2022. “Number of Syrians in Turkey April 2022”



**Figure 18: Education levels of Syrian refugees in Turkey**

Source: World Food Program Turkey Country Office. 2020. “Comprehensive Vulnerability Monitoring Exercise (CVME) Round 5”<sup>21</sup>

The educational level of Syrian refugees in Turkey is depicted in Figure 18. We can observe that both males and females are highly uneducated in the age group 18 to 59, which is the working age group. Females are more uneducated than males, with 25% of them having no formal education and being illiterate. Only 6% of the males between the age 18-59 and 4% of the females have university degrees or above. Whereas 11% of the males and 12% of the females between the ages of 18-59 have completed high school. We may infer from the educational levels of Syrian refugees in Turkey that the vast majority of them lack the necessary skills to work in high-skilled occupations. Therefore, we can expect them to be either involved in low skilled jobs such as manual labor or have no occupation at all.

<sup>21</sup> World Food Program Turkey Country Office. 2020. “Comprehensive Vulnerability Monitoring Exercise (CVME) Round 5”

Professional Group	Men (%)	Women (%)
Architect/ Engineer/ Contractor	1,0%	0,5%
<b>Civil Servant</b>	<b>5,0%</b>	<b>3,9%</b>
<b>Manual Labor</b>	<b>25,5%</b>	<b>17,3%</b>
Office Worker	1,9%	0,7%
Operator/Driver	1,8%	0,0%
Army Officer	1,2%	0,0%
Health Employee	0,4%	0,4%
Agriculture and Animal Husbandry	2,0%	0,4%
<b>Craftsman/ Artisan</b>	<b>8,2%</b>	<b>1,2%</b>
<b>Has No Occupation</b>	<b>53,0%</b>	<b>75,7%</b>
	100,0%	100,0%

**Figure 19: Occupational distribution of Syrian refugees by gender before their arrival to Turkey**

*Source:* personal elaboration based on data from the Ministry of Interior, Disaster and Emergency Management Presidency. <sup>22</sup>

Above Figure 19 shows us the occupational distribution of the Syrian refugees when they were in their home country before migrating to Turkey. We can see that the majority of both males and females had no occupation before arriving in Turkey, respectively 53% and 76%. There is a remarkable difference in the rate of having no occupation between males and females which we can explain by male predominance culture that women are involved mainly in the housework, taking care of the children and elders. Among those who had a job, the majority of both males and females worked in manual labor (low-skilled jobs). After the manual labor, craftsman/artisan is the second category of the professional group for the males while for females is the civil servant.

<sup>22</sup> **Ministry of Interior, Disaster and Emergency Management Presidency.** 2017. "Türkiye'deki Suriyelilerin Demografik Görünümü, Yaşam Koşulları ve Gelecek Beklentilerine Yönelik Saha Araştırması"

## **CHAPTER 3:**

# **TURKISH LABOR MARKET OVERVIEW AND TURKEY AS A HOST COUNTRY FOR IMMIGRANTS**

## **AN OVERVIEW OF TURKISH LABOR MARKET:**

In the third chapter of the thesis, I will try to give an outline of the Turkish labor market dynamics, which is the thesis's core labor market. The first half of the chapter will give us the background information about the Turkish labor market since we need to study the consequences of unskilled migrants, primarily Syrian refugees under temporary protection, as detailed in the thesis' second chapter. The second section of the chapter will focus on the consequences of migration on Turkish labor markets in terms of wages and employment.

### **PART 1: TURKISH LABOR MARKET OVERVIEW:**

#### ***Employment in the Turkish Labor Market:***

The population growth of Turkey has been one of the fastest and highest among OECD countries over the last decade. The population in Turkey has increased from 73.7 million in 2010 to 84.7 million in 2021 according to TURKSTAT data<sup>23</sup> by the increase of the native-born population and also with the migrant influx over the last decade which have been explained in chapter two in detail. As well, the labor force population has significantly increased over the last 10 years, from 25.4 million to 32.6 million according to World bank data<sup>24</sup> which shows us the growth of the labor force is higher than the growth of the population in the last decade in Turkey. The entry of migrant workers into the Turkish labor market can account for this. However, this kind of strong labor force growth rates, such as those seen in the Turkish labor market over the last decade, may result in a labor supply excess. The labor supply surplus has important effects on the employment conditions in the country such as increase in temporary jobs as it becomes more difficult to find permanent jobs, employment in the informal employment market without any contracts and under market wage conditions (mostly even under legal minimum wages).

Employees may voluntarily choose to be employed in temporary jobs due to sustaining their work and education life together as well as their other responsibilities which keep them away from permanent employment such as childcare. In addition, employees may agree to be employed in a temporary job when higher wages compensate for job insecurity because temporary employment is associated with unfavorable working conditions, especially with a

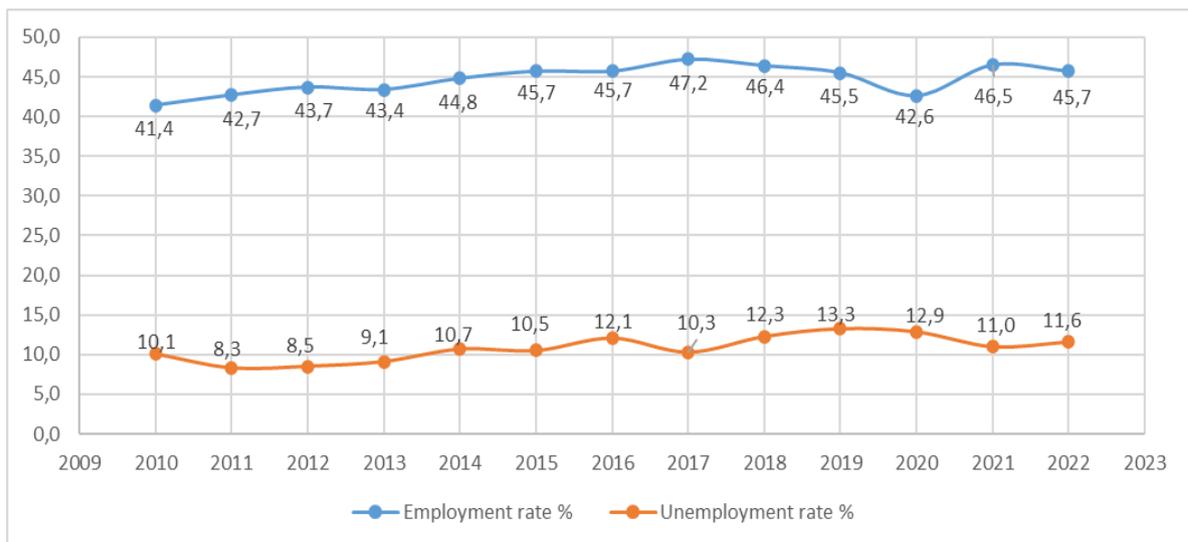
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<sup>23</sup> **TURKSTAT**, 2021. "The Results of Address Based Population Registration System."

<sup>24</sup> **World Bank**. "Labor Force Total. Turkey Derived" using data from International Labour Organization, ILOSTAT database

higher probability of unemployment (Picchio, 2006). In general, employees have been willing to work in temporary jobs since they are challenged to find a permanent job, or they need a short-term source of income.

According to the TURKSTAT, (2018)<sup>25</sup>, approximately 80% of those employed in temporary jobs in the Turkish labor market are working in temporary jobs because they cannot find a permanent job, while a little more than 20% of them either do not want a permanent job or their employment contract duration and education process are intertwined. Furthermore, the informal economy employs 54.50% of temporary workers.<sup>26</sup> There are large wage variations between permanent and temporary positions, owing to the fact that persons who work in temporary jobs are often paid less. Wage disparities between these jobs can be enormous at the wage distribution's bottom and higher reaches (Gemicioğlu and Şahin, 2022a). In the "Wages in the Turkish Labor Market" part of this study, more detailed information and statistics about wages will be presented.



**Figure 20: Employment and unemployment rates in Turkey between 2010-2022**

Source: Personal elaboration based on TURKSTAT, 2022 data<sup>27</sup>

Figure 20 shows that the employment rate has increased to a peak of 47.2% from 2010 to 2017. From this year to the early Covid-19 pandemic period, the employment rate has started to decrease until it has reached 42.6%. A sharp decline is specifically apparent between 2019 and 2020. However, the same effect was observed upwards after recovery from the first adverse effects of pandemic. Even though, it seems like the employment rate in the Turkish labor market

<sup>25</sup> TURKSTAT. 2018. "Household Labor Force Survey."

<sup>26</sup> TURKSTAT. 2018. "Household Labor Force Survey."

<sup>27</sup> TURKSTAT. 2022. "Labour Force Statistics."

seems like it has recovered quickly from the pandemic effect, it is difficult to make predictions about further employment rates in the upcoming years due to high inflation environment of Turkish economy which is accelerated also with steep and rapid value loss of Turkish lira and global crisis such as Russian invasion in Ukraine that affects Turkish economy as well deeply as Russia and Ukraine are strong trade partners for Turkey.

Unemployment rates follow a steadier trend, starting with 10.1% in 2010 to 11.6 through 2022. Surprisingly, both employment and unemployment rates were decreased between 2019-2020. The decrease of employment rate can be explained by either an increase in the total number of employees by migration across the country and dismissals from the occupations due to Covid-19 conditions. Whereas the decrease in the unemployment rate can be attributed to discouraged work force due to Covid-19 conditions or by an increase in the informal economy (however, it is probably not the case as we can see from the Figure 23 the total number of unregistered workers decreases between 2019-2020, whereas it increases significantly between 2020-2021) Therefore, informal or unregistered statistics were proven to be effective in a developing economy. Similarly, the employment rate increased from 42.6% to 46.5% while the unemployment rate decreased from 12.9% to 11.0% between 2020-2021. So, we see an inverse link between employment and unemployment rates between 2020 and 2021, which is more likely to be observed. These statistics could suggest an increase in job prospects for job searchers following the pandemic, or a drop in the number of unregistered workers (mostly migrant workers). However, from Figure 23 we can see that between 2020-2021 the number of registered and unregistered workers has both increased, implying that we are likely to witness an inverse relationship between employment and unemployment due to the bigger growth in registered workers after the pandemic era.

The International Labor Organization (ILO) considers individuals in the 15-24 age group as youth employment. The general unemployment rate in Turkey is around 11,6% by 2022. However, the youth unemployment shows itself much higher than the general unemployment rate in the country which has reached around 21.2%<sup>28</sup>. The age group of 25-29 has comprised 40.8% of the emigrant population in Turkey.<sup>29</sup> This demonstrates that the Turkish labor market has difficulties accommodating the Turkish young, educated people who have university

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<sup>28</sup> **TURKSTAT** 2022. "Labour Force Statistics."

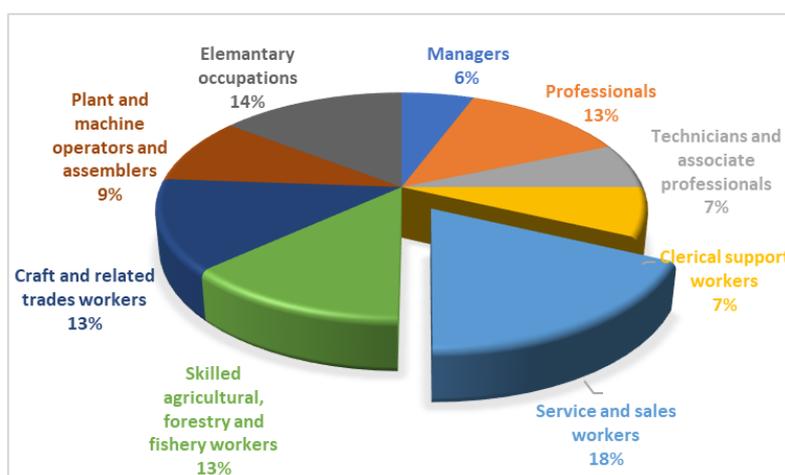
<sup>29</sup> **TURKSTAT**.2019. "International Migration Statistics."

degrees considered as high-skilled labor and eventually lead them to want to leave their country for higher education or job opportunities abroad.

***Occupation Distributions and Regional Segregation in the Turkish Labor Market:***

It is also important to examine the occupational distribution of the workers in the Turkish market to be able to understand the necessary skill set for the jobs available in the Turkish labor market. The necessary skill set for the jobs available in the labor markets and the labor force’s capabilities do not always match in some of the labor markets, in this case the migrant workers could compensate for that labor supply mismatch. The skill set of the workers is one of the key factors in every labor market for employees to be able to reach a certain income level and get better employment conditions. As we have previously discussed, when there are high unemployment levels in the labor market, lower-skilled workers are the ones who generally have to bear the negative impacts more than higher-skilled workers.

In this part, we are also going to mention the regional differences in the Turkish labor market as there are significant regional segregations in the occupational conditions due to the fact that there are major differences in development levels between the regions of Turkey.



**Figure 21: Distribution of workforce aged 15+ by occupation (ISCO 08) in Turkey**

Source: Personal elaboration based on TURKSTAT, 2022 data<sup>30</sup>

As we can see from the Figure 21 that majority of the occupations in the Turkish labor market requires low or medium level skill set such as elementary occupations by 14%, plant and machine operators by 9%, craft and related trade workers by 13%, skilled agricultural, forestry and fishery workers by 13%, service and sales workers by 18% and clerical support workers by 7%. The occupations we can consider that require medium to high skill set is around %26 which

<sup>30</sup> TURKSTAT. 2022. “Labor Force Statistics.”

are managers by 6%, professionals by 13% and technicians and associate professionals by 7%. The occupational distribution of the workforce proves that the majority of jobs created in the Turkish labor market are low-to medium skill required jobs which explains also why over 40% of the workforce cannot surpass the minimum wage in their earnings.

Global technology advancements necessitate the creation of a highly skilled labor force in order for countries to remain competitive. The percentage of high-skilled employees in the labor force has risen in Turkey in recent years, thanks to the expansion of universities in many cities across the country which has developed a high skilled youth workforce in Turkey. However, despite the fact that employment in all low-, medium-, and high-skilled job categories has expanded in Turkey over the previous decade, there is an asymmetry between the high skilled workforce increase and high skill job creation. (Acar and Del Carpio, 2019) This circumstance cause Turkey's highly skilled youth population to settle for professions that require a lesser skill set than they could do with the lower earnings they could earn. Some of the highly skilled young people are not even attached to the labor market as they cannot find jobs, or they believe they cannot find an occupation that would match their skill set. Among OECD countries, Turkey is the one which has the highest NEED rate by 28.77%<sup>31</sup> in which an important part is university graduates by 33.4% in 2021.<sup>32</sup> These all can be explained by the Turkish labor market's slow ability to develop higher-quality, cognitively demanding occupations and compared with other advanced economies, the job market still depends heavily on manual skills and too little on cognitive talents. (Acar and Del Carpio, 2019) The country's incapacity to accommodate its trained skilled workers or place them in positions that match their skill set plainly demonstrates that talent in the Turkish labor market is underutilized, lowering the country's global economic competitiveness.

In Turkey, there is a substantial development gap particularly between the western and eastern areas. In comparison with the EU countries, the disparities in regional development in Turkey are significantly greater.(Wolleb and Daraio, 2009) Traditional elements of regional development disparity between Turkey's western and eastern regions that have existed for a long time can be counted as: inefficient policies, geographical and climate challenges, high distance to ports and markets from eastern areas, fewer investments in eastern areas, imbalanced distribution of industry clusters, insufficient agricultural activities, uneven distribution of per

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<sup>31</sup> OECD. 2022. "Youth not in employment, education, or training (NEET) (indicator)."

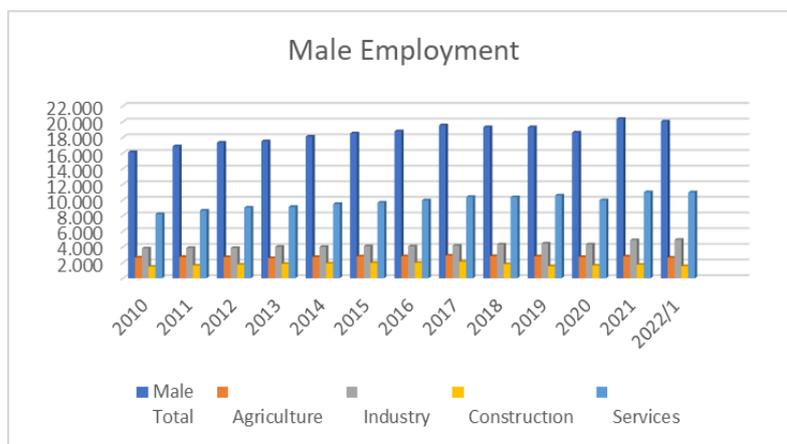
<sup>32</sup> TURKSTAT. 2022. "Labor Force Statistics."

capita GDP and higher fertility rates in the eastern areas. All these factors cause migration inside the country from less developed eastern areas to more developed western areas. (Karaalp Orhan and Gülel, 2016) Moreover, as we have seen in chapter 2, the eastern regions bear the greater share of the migrant influx in recent years due to their proximity to the conflict zones can be seen as another reason for the regional disparities.

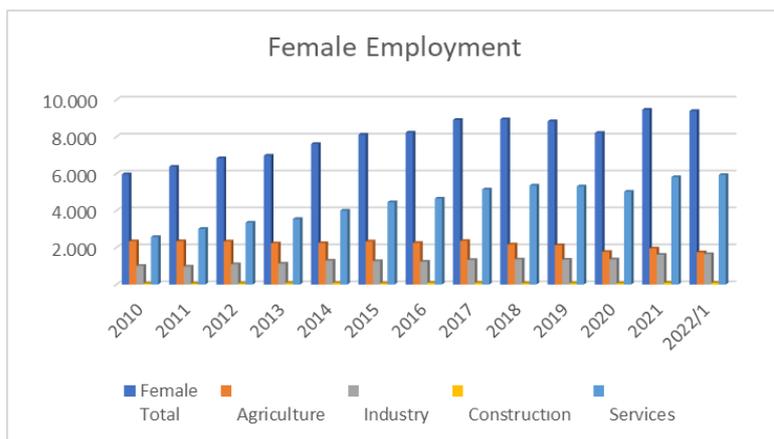
As there are high differences in development levels between regions, it is not surprising that in the eastern regions the main sectors are agriculture, animal husbandry, mining, and tourism. Therefore, the majority of the workforce in the eastern regions are low to medium skill. Whereas the high skill occupations are mostly in the big cities particularly Istanbul, Ankara, and Izmir. The unavailability of high skill occupations and higher unemployment rates which reaches around 20-25%, in some regions even higher than 25% in east Turkey<sup>33</sup> leads migration from east to western parts of the country.

***Gender/ Sector Segregation Under Turkish Labor Market:***

Employment statistics by sector shows that 68.07% of the workforce in the Turkish labor market is male predominant (20 million) and 31.93% of it consists of female employees (9.3 million). Recent data suggests that the majority of both male and female employment belongs to the service sector. Unlike women, male employment for the service sector is followed by industry, agriculture, and construction, respectively due to physical efforts required by jobs. On the other hand, agriculture and construction sector employees have almost remained constant while industry and services employees have increased through 2010-2022 for both male and female employees.



<sup>33</sup> OECD. 2022. “Job Creation and Local Economic Development 2020”, Country Profile: Turkey



**Figure 22: Male and female employment by sector in Turkey between 2010-2022 (thousands)**

Source: Personal elaboration based on TURKSTAT 2022 data<sup>34</sup>

### ***Informal Employment in the Turkish Labor Market:***

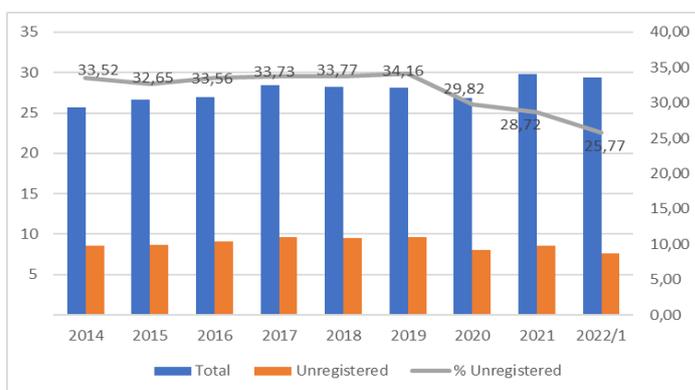
Informal employment refers to non-reporting or incomplete reporting of working days or wages to the relevant public institutions and organizations for people who are involved in employment in legal jobs. According to this definition, there are three types of informal employment. These include i) Sending no notification about employees to the Social Security Institution, ii) Incomplete notification of working days, iii) Incomplete notification of earnings based on insurance premium (Social Security Institution (SSI), 2022).

Despite significant progress since the early 2000s, the informal economy continues to be a part of the Turkish labor market. Poor working conditions and low pay without social security are common characteristics of informal jobs. Employees in the informal economy do not qualify for public health care or retirement benefits. Due to difficult employment and terrible working conditions, their health is also at risk. The main reason to be included in informal economy is lack of encouragement of formal economy due to insufficiency of government policy. Lack of inspection mechanisms and penal sanction are also main drivers of the informal economy. The government policies such as high-income tax, tax amnesties for employers and ineligibility of formal employees for social welfare programs cause the growth of the informal economy (Ministry of Development, 2014). Other contributors for participating in the informal economy are dissatisfaction from the social security system and arrangements about higher wages in exchange for insurance payments between workers and employers (Başlevent & Acar, 2015).

<sup>34</sup> TURKSTAT. 2022. "Labour Force Statistics".

In the Turkish labor market, the stratification of formal-informal employment stands out. Among the wage earners, which make up the largest segment of employment, there is a significant informal employment. Those who are not registered with any social security institution due to their main job considered by TURKSTAT within the scope of unregistered employment. By definition, informal employees excluded from legal regulations cannot benefit from the minimum wage and its increases, However, the minimum wage and its increases are also a reference point for informal employees, and they are indirectly effective to determinate informal wages (Maloney and Mendez, 2003)

The informality in the sectors such as agriculture, construction and low technology services are significantly high. It is also worth noting that if the employee is female, older, or less educated, the likelihood of informality rises. (Acar and Del Carpio, 2019)



**Figure 23: Number of unregistered individuals and its change by years (millions)**

Source: Personal elaboration based on TURKSTAT 2022 data<sup>35</sup>

People who are not registered to SSI in Turkey for their main job is above 7.5 million people which means 25.77% of the 29 million employees are unregistered workers. Percentage data on unregistered people for the last three years emphasized a sharp decline with downward trend shows that the Turkish labor market has improved about job creations even though the informality rate is still high. However, the job creation rate in the Turkish labor market is not really able to keep up with the pace of new entrants either for high skill who are young, university graduates or for low skill who are migrants from underdeveloped countries due to the recent economic recession in Turkey. (Acar and Del Carpio, 2019)

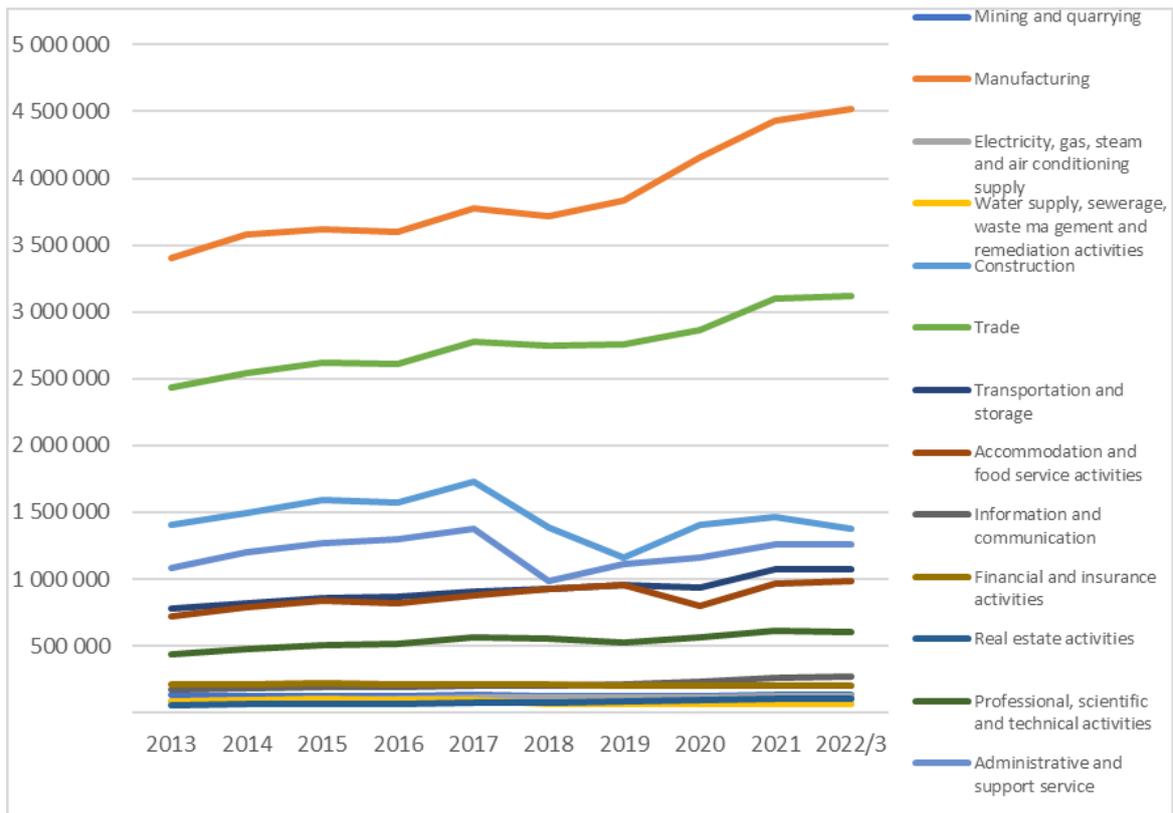
<sup>35</sup> TURKSTAT. 2022. "Labour Force Statistics."

Furthermore, as previously indicated, regional disparities in Turkey manifest themselves in the extent of informality in the labor market. Istanbul stands out not surprisingly for the number of employees who are working informally which can be explained by the metropole's population. However, what really stands out is that in the Eastern regions such as Agri (Kars-Agri-Igdir-Ardahan), Sanliurfa (Diyarbakir-Sanliurfa) and (Van-Mus-Bitlis-Hakkari) are the regions where the percentage of informal employment are even higher than 60%. (Acar and Del Carpio, 2019)

### ***Wages in the Turkish Labor Market:***

The number of minimum-wage employees and rate of minimum wage are among the most fundamental parameters which indicate the effects of minimum wage in an economy. Therefore, it is important to know the numbers of minimum-wage employees and the rate of minimum wage. But first, to have a general understanding about the sectors that paid employees are employed in Turkey and its change by year by year can be useful. Figure 24 suggests that top contributors where most of the employees are employed in the Turkish labor market are manufacturing and trade sectors.

In the below Figure we can observe that from 2013 to 2022/3, number of paid workers increased in manufacturing by 32.66%, information and communication services by 53.63%, real estate activities by 84.13%, professional, scientific, and technical activities by 39.39%, accommodation and food service activities 36.49%, transportation and storage 38.48%, electricity, gas, steam, and air conditioning supply 42.81%, trade 28.35%. Two economic activities showing downward trend years are construction and administration and support services. Interestingly, paid employees in the construction sector have decreased about 2.2% through the years which may be explained by the increase in unregistered migrant employees in 2019, assuming that most of the unregistered workers were in the construction sector.

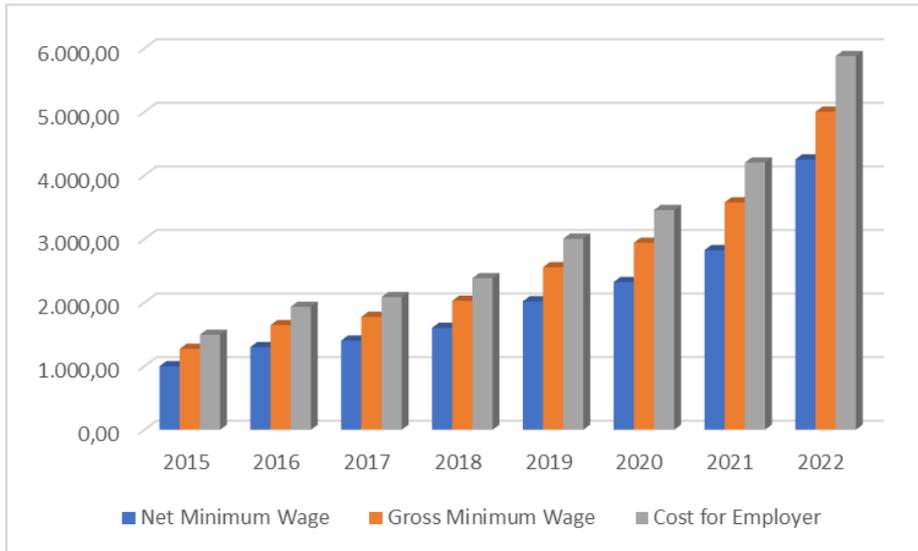


**Figure 24: Numbers of paid employees by economic activity between 2013-2022**

Source: Personal elaboration based on TURKSTAT 2022 data<sup>36</sup>

Gross minimum wage was increased by 40% to TRY 5,008.5 per month by the Turkish government in January this year. Monthly net wage was raised by 50% to TRY 4,250. This is considered as the highest increase in 50 years due to value loss of Turkish Lira and inflation rise (Ministry of Labor and Social Security, 2022). However, the minimum wage in Turkey is an issue with a history of approximately 70 years. Its existence, function and importance are accepted by all relevant social actors, but its implementation in practice is discussed in some aspects. In particular, the minimum wage increases decisions of the Minimum Wage Determination Commission, the structure of the commission, the criteria for determining the level of the minimum wage and the tax burden on the minimum wage are among the most discussed issues in Turkey (Aslan, 2019).

<sup>36</sup> TURKSTAT. 2022. "Labour Force Statistics."



**Figure 25: Changes in net and gross minimum wage and its cost for employers by years**  
 Source: Personal elaboration based on data from Ministry of Labor and Social Security, 2022<sup>37</sup>

In Figure 25 we can see that net minimum wage, gross minimum wage and cost for employers in 2015 was TRY 1,000.54, TRY 1,273.50 and TRY 1,496,36 respectively. However, due to value loss in Turkish lira and increase in inflation throughout the years in Turkey, the net minimum wage has increased to TRY 4,253.40 with an increase of 325.11%. Increase rate for gross minimum wage and cost for employer is calculated as 292.93%. Even though this increase seems quite a lot in a period less than a decade, as the starvation line has increased throughout this period so much with the collapse in the value of Turkish lira and high inflation, the minimum wage in Turkish labor market in 2022 does not even cover the starvation line<sup>38</sup> where the starvation line has been announced as TRY 5,323.64 in April 2022 according to the Confederation of Turkish Trade Unions<sup>39</sup>. So, over the years even with the increases in the minimum wage, the minimum wage earners in Turkey have found themselves in more economic and financial difficulties to cover up their daily life expenses.

Moreover, another important measure we need to address about minimum wage in the Turkish labor market is the number and the percentage of people earning minimum wage income and how it has evolved over the years. Today, according to DİSK-AR's report on Minimum Wage Reality-2022 there are around 10 million workers working for minimum wage in the Turkish labor market. In the same report, it is also indicated that around 3.4 million employees in the

<sup>37</sup> Ministry of Labor and Social Security, 2022 "Çalışma ve Sosyal Güvenlik Bakanlığı Çalışma Genel Müdürlüğü, Yıllar İtibariyle Net ve Brüt Asgari Ücretler".

<sup>38</sup> **bne IntelliNews**. 2022. "Gap between Turkey's minimum wage and starvation line 'has almost entirely gone'"

<sup>39</sup> Confederation of Turkish Trade Unions. 2022, April, "The Starvation and Poverty Line in April"

Turkish labor market are working with an income below the minimum wage.<sup>40</sup> It is also significant to note the shift in the percentage of minimum wage workers over time; we can see that the percentage of minimum wage earners has risen every year, from 35 percent in 2017 to 42 percent in 2020.<sup>41</sup> The rise in the percentage of minimum wage workers shows that there is a trend in the Turkish labor market for businesses to seek out workers for whom they can pay low salaries. According to the demographics in Turkey, wages of lower skilled employees are likely depressed at higher unemployment rates. On the other hand, real wages of experienced employees are more resistant to unemployment rates. The Turkish labor market suffers from low wages which originates from true state dependence and heterogeneity. Gender gap, education and skill differences, small and medium sized businesses (more than 99%) and big firms are main sources of low wage persistence (Gemicioğlu & Şahin, 2022b).

Another important point to emphasize about the Turkish labor market where there is high unemployment rate in comparison with other countries OECD countries which will be shown later in the thesis where we are going to develop a comparison between the Turkish labor market and OECD countries to be able to analyze the Turkish labor market better, is to understand which group of workers are being more affected during the high unemployment periods. According to research conducted by (Baltagi, et al., 2011) wages of workers who are less educated, less skilled, and younger are depressed more during periods of high unemployment rates. It is determined that the real wages of workers with more experience within a firm are insensitive to the unemployment rates. Furthermore, if two individuals have the same degree of education but one works in the formal labor market and the other works in the informal labor market, the informal labor market worker often earns less than the formal labor market worker. (Acar and Del Carpio, 2019)

### ***Comparison with OECD Countries:***

It is also vital to compare and contrast the average data of OECD nations' labor markets in order to gain a better knowledge of the Turkish labor market. According to the OECD's labor performance statistics, we can have comparison ideas about the countries' labor markets. There are five main categories which are quantity, quality, inclusiveness, resilience, and adaptability. Employment/unemployment rates, labor underutilization, earnings, labor market insecurity, job

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<sup>40</sup> The Research Center of Confederation of Progressive Trade Unions of Turkey (DİSK-AR). 2022. "Minimum Wage Fact Research"

<sup>41</sup> Euronews. 2021. "How has the rate of minimum wage workers changed in the last 20 years in Turkey?"

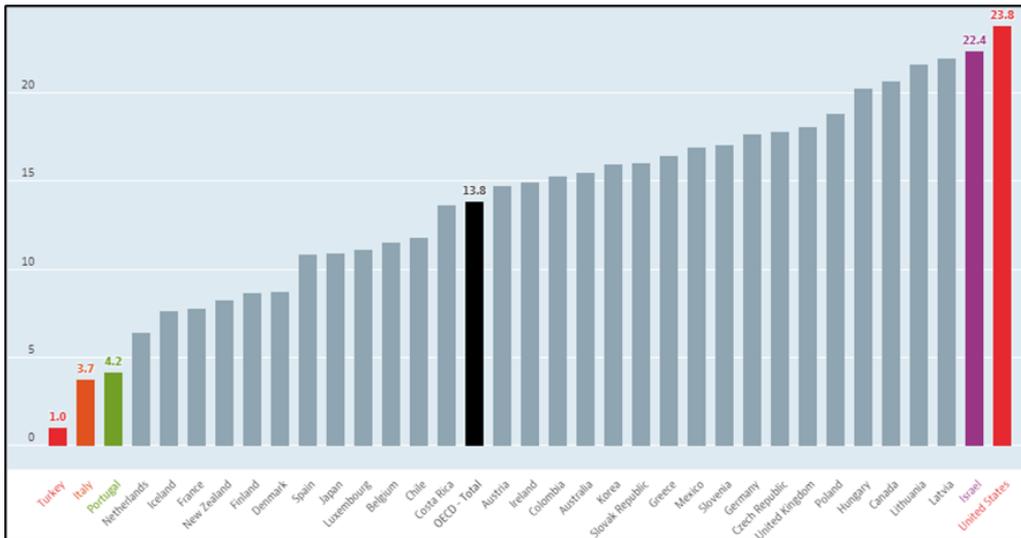
strain, income rate and gap, unemployment cost, and labor productivity growth are among these characteristics. (OECD, 2022). According to Figure 26 below, Turkey is way behind OECD countries for the majority of these categories, especially for quantity, quality and inclusiveness.



26: Comparison of labor market performance of Turkey with OECD countries  
 Source: OECD, 2022. “OECD Job Strategy by Country”

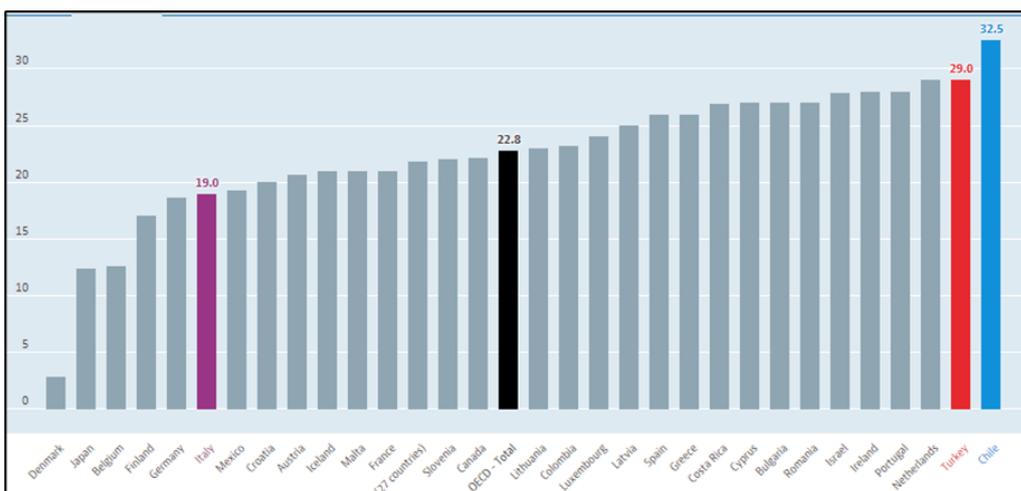
Figure 26 shows that Turkey has almost the worst performance rates among OECD countries for employment rate, broad labor underutilization, earnings quality, job strain and employment gap for disadvantaged groups while labor productivity growth and unemployment cost of a decline in GDP are above the OECD average. In the Turkish labor market, low employment rate and higher broad labor underutilization can be explained mainly by low women participation in the labor market compared with OECD countries. The unemployment rate is also significantly higher than the OECD average.

Similar results were reached using pay level data from OECD countries, as seen in the Figure 27 below. The proportion of workers earning less than two/ thirds of the median wage is referred to as the incidence of low pay. Employees in Turkey with a 1.0% wage level had the lowest salaries, followed by Italy and Portugal, among other OECD nations, according to a comparison of wage levels. With 23.8 percent and 22.4 percent, respectively, the United States and Israel are the best performers.



**Figure 27: Comparison of low wage levels of Turkey with OECD countries**  
 Source: OECD. 2022. “Wage levels (indicator).”

On the other hand, the same statistics from a high pay perspective (the share of workers earning more than one and half times median earnings) showed that Turkey has the second highest wage level with 29.0 after Chile as can be seen from the Figure 28 below.



**Figure 28: Comparison of high wage levels of Turkey with OECD countries**  
 Source: OECD. 2022. “Wage levels (indicator)”.

According to the OECD's graphs of low and high salary levels by country, Turkey is at the bottom of the low wage levels and at the top of the high wage levels. This demonstrates that the income gap in emerging nations like Turkey continues to be a major issue in their labor markets, resulting in income disparities. The income polarization in countries causes slow rate growth in employment and disappearance of the middle-wage jobs. (Sevinç, 2019)

## **Summary of Overview of the Turkish Labor Market:**

So far, we have examined the Turkish labor market in terms of employment, informal employment, occupational distributions and regional segregations, gender and sectoral segregations, wages and how it distinguishes inside OECD countries. As we are going to proceed with our analysis in the second part of this chapter with the migration influx effect on Turkish labor market's employment and wages, the following below are the some of the key inferences to keep in mind about the overview of the Turkish labor market:

- The labor force population in Turkey has expanded dramatically over the last decade, from 25.4 million to 32.6 million, with new university graduates providing high-skill workers and migrants providing low-skill workers. In both high and low skill labor markets, this results in labor supply shock.
- Employment statistics by sector shows that 68.07% of the workforce in the Turkish labor market is male predominant (20 million) and 31.93% of it consists of female employees (9.3 million) which can be seen that the gender distribution of the workforce is highly unequal compared with OECD countries.
- During the pandemic period between 2019-2020, there is an apparent decrease in the employment levels in the Turkish labor market, however we can observe a rapid recovery in the post-pandemic period. Yet, it is difficult to estimate what the further employment rates could be in upcoming years due to high inflation accelerated by value loss in Turkish lira and global crises such as Russian invasion in Ukraine.
- Between 2019-2020, both employment and unemployment rates were decreased. Employment rate decrease can be attributed to an increase in the total number of employees by migration across the country and dismissals from the occupations due to Covid-19 conditions. On the other hand, unemployment rate decrease can be explained by discouraged work force due to Covid-19 conditions.
- Between 2020-2021, there is an inverse relationship where employment rates are increasing and unemployment rates are decreasing, which is the case more likely to be observed. We observe that there is an increase in both the number of registered and unregistered workers between 2020-2021 where the proportion of increase in registered workers is higher than the proportion of increase of unregistered workers.

- The occupational distribution of the workforce proves that the majority of jobs created in the Turkish labor market are low-to medium skill required jobs which explains also why over 40% of the workforce cannot surpass the minimum wage in their earnings.
- The youth unemployment rate is 21.2% in the Turkish labor market is significantly larger than the general unemployment rate which shows the Turkish labor market's inability to create new high skill jobs with the same speed training of young high skill educations eventually lead them to leave their country and seek higher education or job opportunities abroad. Among OECD countries, Turkey is the one which has the highest NEED rate by 28.77% in which an important part is university graduates by 33.4% in 2021.
- The country's incapacity to accommodate its trained skilled workers or place them in positions that match their skill set plainly demonstrates that talent in the Turkish labor market is underutilized, lowering the country's global economic competitiveness.
- The competition in the medium skill labor market increases as high skill individuals settle for medium skill jobs due to low job creation in the high skill labor market that requires cognitive skills. And competition in the low skill labor market deepens as well due to migrant influx.
- In Turkey, there is a substantial development gap particularly between the western and eastern areas. The regional disparities deepen as the eastern the eastern regions bear the greater share of the migrant influx in recent years due to their proximity to the conflict zones. The main sectors in eastern regions are agriculture, animal husbandry, mining and tourism. Therefore, the majority of the workforce in the eastern regions are low to medium skill. The unavailability of high skill occupations and higher unemployment rates which reaches around 20-25%, in some regions even higher than 25% in east Turkey leads migration from east to western parts of the country particularly Istanbul, Ankara, Izmir.
- Despite significant progress since the early 2000s, the informal economy continues to be a part of the Turkish labor market. The informality in the sectors such as agriculture, construction and low technology services are significantly high. It's also worth noting that if the employee is female, older, or less educated, the likelihood of informality rises.

Furthermore, as previously indicated, regional disparities in Turkey manifest themselves in the extent of informality in the labor market. People who are not registered to SSI in Turkey for their main job is above 7.5 million people which means 25.77% of the 29 million employees are unregistered workers.

- The net minimum wage has increased to TRY 4,253.40 with an increase of 325.11% between years 2015-2022 in Turkey. The increase rate for gross minimum wage and cost for employers is calculated as 292.93%. Even though this increase seems quite a lot in a period less than a decade, as the starvation line has increased throughout this period so much with the collapse in the value of Turkish lira and high inflation, where minimum wage does not even cover the starvation line in 2022. So, over the years even with the increases in the minimum wage, the minimum wage earners in Turkey have found themselves in more economic and financial difficulties to cover up their daily life expenses. Around 42% of the workers are minimum wage earners in the Turkish labor market.
- Turkey has almost the worst performance rates among OECD countries for employment rate, broad labor underutilization, earnings quality, job strain and employment gap for disadvantaged groups while labor productivity growth and unemployment cost of a decline in GDP are above the OECD average.
- Turkey is at the bottom of the low wage levels and at the top of the high wage levels. This demonstrates that the income gap in emerging nations like Turkey continues to be a major issue in their labor markets, resulting in income disparities.

## **PART 2: IMMIGRATION IMPACT ON WAGES AND EMPLOYMENT IN TURKISH LABOR MARKET:**

The second part of the third chapter of this thesis work will focus entirely on Syrians in the Turkish labor market. The previous part of this chapter has guided us to develop the current outlook of the Turkish labor market. The understanding of the host country's labor market itself is important to criticize the migrants' place in that labor market. With the inferences we have reached from the part 1 of this chapter, we will be able to make the examine the entrance of migrants in the Turkish labor market, the employment status of them in terms of the sectors/occupations they are employed in and formality/informality of their employment status, the wages levels of the Syrians and their working conditions/ hours to reach that amount of income. Furthermore, we will continue to develop this section of the chapter by addressing empirical studies, mostly conducted by Turkish authors, on how Syrian migration affected the Turkish labor market, and finally, because the phenomenon of migrants in the labor market is relatively new to the Turkish labor market, a long-term perspective commentary will be added.

### ***Immigrants Entrance in the Turkish Labor Market***

Given that Turkey was not hosting a huge number of migrants just a decade ago, both of the low skill and high skill occupations were performed by native residents in the Turkish labor market. As a country which hosts diversity of different ethnicities, even though all the occupations were performed by natives, the ethnical divide in the percentage of low skill and high skill employment was apparent in the Turkish labor market. For instance, Kurdish ethnics, the largest ethnic minority group, have much lower educational levels than Turkish origin people, and low skilled occupations are primarily performed by Kurdish people, particularly in agriculture and construction. (Balkan and Cilasun, 2018) Aside from the ethnic divide, there were no occupations that could be defined as "migrant jobs," which are mostly low skilled manual jobs, in the Turkish labor market a decade ago, compared to developed nations with a significant share of migrant workers, such as Germany, the United States, and the United Kingdom.

As we have mentioned in detail in part of "A short historical review of migration story of Turkey" part of the chapter 2, Turkey actually is not really a destination for migrants who were looking for higher wages and better working conditions, in other words it was not a considered destination for labor migrants. Considering the labor market conditions in Turkey, where the wage levels are significantly low and there is high unemployment, the Turkish labor market

actually is still not a really attractive destination for the labor migrants. However, with the effect of the mass migration to Turkey in the last year, majorly from Syria who are refugees or asylum seekers, migrants began to enter the Turkish labor market. Access to the job market becomes crucial when the time of stay in the host country gets longer and the prospect of returning to the country of origin does not appear immediate, as in the case of Syrian refugees in Turkey. As a result, given Turkey's unfavorable labor market conditions, we can conclude that migrant workers' presence in the Turkish labor market over the last decade is not due to a desire to work in Turkey rather than their home country, but rather due to their inability to return home.

The first waves of Syrian migrants to Turkey arrived in 2011. However, the legal procedures and measures that would grant Syrian refugees the ability to work in the Turkish labor market were completed around 2016. This demonstrates that Turkey was unable to handle the enormous migratory flow and struggled to anticipate the future needs of the migrants and take appropriate measures in time as there was no legal clause for 5 years about the right of work of Syrian refugees. In January of 2016, the regulation that allows Syrian refugees to be able to participate in the labor market was established and published in the Official Gazette of Turkish Republic on 11.01.2016 by the law 8375 under the name of “Regulation on Work Permit for Foreigners under Temporary Protection.” (Kırdar and Demirci, 2021) At the same time, Syrian refugees gained access to the Turkish Employment Agency's career and employment counseling services, as well as activation programs.<sup>42</sup> Only 7692 work permits for Syrian refugees were awarded until 2016, with the majority of them going to people who founded their own businesses. (Kırdar and Demirci, 2021) We can see from the extremely low numbers of work permits Syrian refugees were not even existing in the formal employment between 2011-2016. There are some important articles on law 8375 to mention:

- It is notable that enterprises have a percentage limit on the number of refugees they can hire; the overall number of refugee employees cannot exceed 10% of Turkish employees. (İçduygu and Şimşek, 2016)
- Syrian refugees can only be hired in the province where they registered.
- If one of the family members has formal employment, they lose their eligibility for the Emergency Social Safety Net (ESSN) program, which was established through

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<sup>42</sup> ILO- Geneva. 2021. “Promoting Decent Work in Refugee and Mixed Migration Contexts. A South-South Triangular Cooperation (SSTC) Initiative Between Turkey and Colombia”

agreements between the European Union and Turkey for funding and addressing the refugee crisis to offer economic aid to refugees.

Even though law 8375 has opened the doors for the possibility of formal employment for Syrian refugees, these three articles above can be interpreted as some limitations for Syrian refugees' access to formal employment. Some of the possible limitations of these articles can be listed as below:

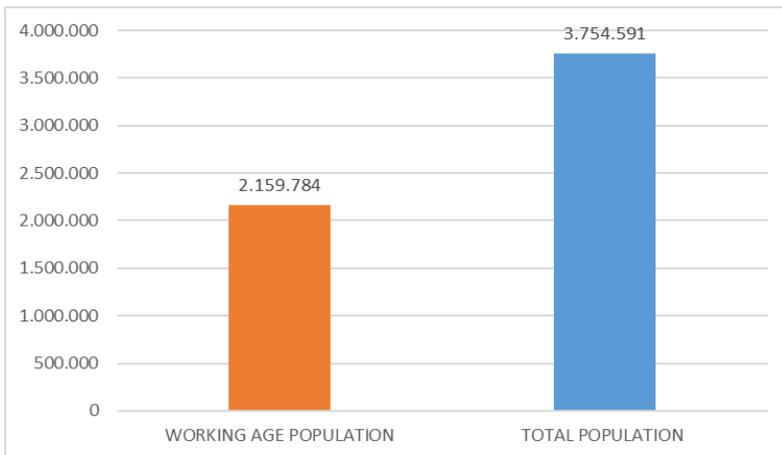
- Since the Syrian refugees can only be hired in the province where they registered, as we have mentioned in chapter 2 that majority of Syrian refugees are located in the eastern provinces of Turkey, where a part of Turkey as we mentioned earlier in chapter 3, the job opportunities are much more limited and there are higher unemployment rates than the western cities. This would mean that the majority of the Syrian refugees will have to search for formal employment in a limited market area where there are not many possibilities, lowering their chances of getting formal employment. Although it is technically feasible to change the province of registration, it is a time-consuming and expensive process for Syrians. (del Carpio et al., 2018)
- The inability to access the ESSN program is a significant disadvantage because the amount of economic aid provided by this program is determined by the size of the family, and by March 2022, more than 1.5 million individuals and approximately 243.000 households had received cash assistance, with 56 percent of households with four or more children receiving cash assistance.<sup>43</sup> These ESSN monthly payments can be substantial in order to offset the costs of big families. In 2018, it is estimated that it will cover 36% of the monthly expenditure of a six-member refugee household. (Aygün, 2021) For large families with four or more children, if only one family member has a formal job paying minimum wage, it may not meet 36 percent of the family's monthly expenses. In this case, by formal employment of the family member, the family may be even worse off economically; thus, this article can be interpreted that for large families with many children, members may be unintentionally forced to work in the informal labor market due to inability to access ESSN payments.

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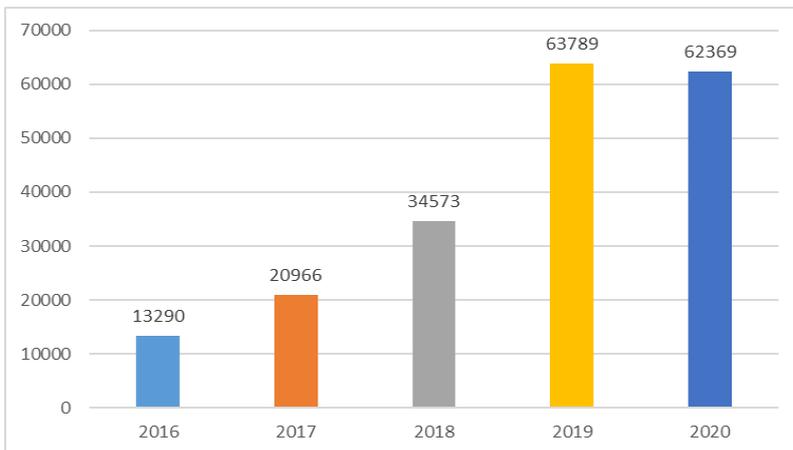
<sup>43</sup> IFRC. 2022. "Emergency Safety Social Net (ESSN) Monthly Report"

Despite the fact that Law 8375 has opened the door to the prospect of official employment for Syrian refugees, the limits outlined above may lead them to informal employment or cause them to remain in informal labor.

In Figure 29 below, we can see that the population of Syrians under temporary protection in Turkey is a relatively young population with the average age of 22.3. The working age population is 2.159.784 people which accounts for 58% of the total Syrian population under protection.<sup>44</sup>



**Figure 29: Working age population (15-64) of Syrians under temporary protection in Turkey**  
*Source:* Personal elaboration based on data provided by Ministry Interior of Turkey; Presidency of Migration Management statistics published on 24.03.2022<sup>45</sup>



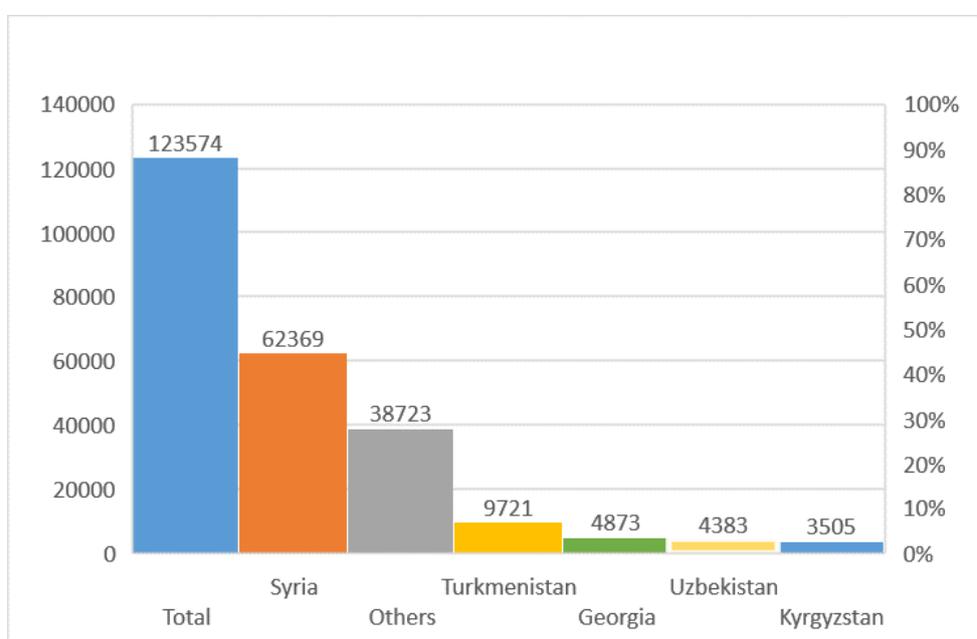
**Figure 30: Number of work permits issued to Syrians after law 8375**  
*Source:* Personal elaboration based on data provided by Ministry of Family, Labor and Social Services, 2016, 2017 2018, 2019 and 2020 reports<sup>46</sup>

<sup>44</sup> Refugees Association. 2022. “Number of Syrians in Turkey April 2022”

<sup>45</sup> Refugees Association. 2022. “Number of Syrians in Turkey April 2022”

<sup>46</sup> Ministry of Family, Labor and Social Services. 2020, 2019, 2018, 2017 and 2016. “Work Permits of Foreigners

Despite the fact that there are 2.159.784 of Syrian refugees who are in the working age population, as we can see from Figure 30, the number of work permits given after the issue of Law 8375 that gave the possibility of formal employment for Syrian refugees in January 2016 are still very low. The number of work permits issued are 13.290 in 2016, 20.966 in 2017, 34.573 in 2018, 63.789 in 2019 and 62.369 in 2020 with an upward trend. Only in 2020 the upward trend is not followed, probably due to Covid-19 pandemic effect. In total after the issuance of the law 8375, between 2016-2020 there have been 194.987 work permits issued for Syrians. It is important to note that within these numbers, we cannot separate the number of first work permits issued or number of renewals therefore we cannot really estimate the number of people who are in formal employment as the renewals of work permits make it difficult to estimate but we know that is it is lower than the number of permits issued. As a result, despite the introduction of legal substructure, the number of Syrian refugees who have managed to find formal employment is extremely low. As a result, we can conclude that formalization of their right to work had little impact on their formal employment. Similarly, Bahar et al. (2021) discovered that legislation in Colombia that offered legal regulations for Venezuelan refugees to be able to formally work had little effect on formal employment. This might show us, in developing nations the existence of legal frameworks does not really guarantee access to formal employment for refugees in the countries.

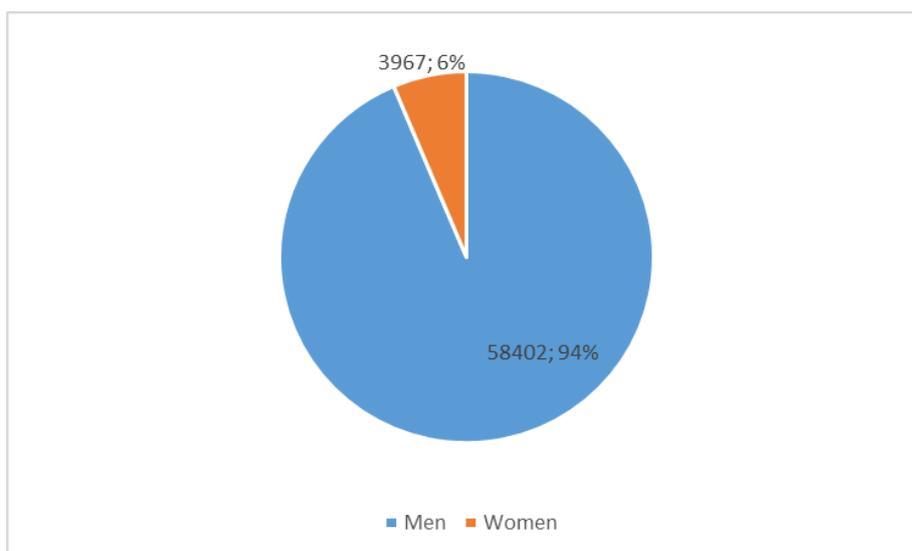


**Figure 31: Work permits issued to foreigners in 2020 by nation**

*Source:* Personal elaboration based on data provided by Ministry of Family, Labor and Social Services, 2020<sup>47</sup>

<sup>47</sup> Ministry of Family, Labor and Social Services. 2020. “Work Permits of Foreigners”

Figure 31 above, depicts us the national breakdown of the work permits issued in Turkey in 2020. We can see from the figure that there are a total 123.574 work permits awarded in 2020 of which 62.369 of them are issued to Syrians counts for 50.4% of the total work permits followed by 7.8% to Turkmen, 3.9% to Georgians, 3.4% to Uzbeks and 2.8% to Kyrgyzstanis. As a result, we can see that Syrians acquired by far the most, accounting for more than half of all work permits issued in 2020. Despite the fact that Syrians constitute the largest group, accounting for around half of all work permits issued, the number of work permits issued still remains very low when compared to the working-age population of Syrian refugees in Turkey.



**Figure 32: Gender divide of work permits issued to Syrians in 2020**

*Source:* Personal elaboration based on data provided by Ministry of Family, Labor and Social Services, 2020<sup>48</sup>

Another important point to mention is the gender segregation of the work permits issued for Syrians in 2022. We can see from Figure 32, the entrance of formal employment for Syrian women is extremely limited which accounts for 6% of work permits issued in 2020 for Syrians. We already mentioned the male dominance in the Turkish labor market before which accounts for 68.07% of the workforce. So, it is not surprising that we discover the same male majority among Syrians, but the gender difference is significantly wider for the Syrians case, where Syrian women almost do not exist in the formal employment.

### ***Employment and Wages of Syrian Migrants in the Turkish Labor Market***

So far, we have discussed how Syrian refugees could have entered the formal labor market in Turkey, as well as statistics on their presence in the formal labor market, and we have shown

<sup>48</sup> Ministry of Family, Labor and Social Services. 2020. "Work Permits of Foreigners"

that, sadly, Syrians cannot truly participate in the formal labor market, despite legal requirements. The main reasons for this are:

- Problems obtaining work permits because legal procedures are expensive and require at least one month to secure a work permit for a term of one year, which must then be renewed.
- Employers' lack of understanding of the procedures for hiring refugees or migrants
- Issues in social scale like prejudices towards refugees and migrants, as well as a preference for local employees <sup>49</sup>
- Syrian refugees' lack of Turkish language fluency and job-related abilities, as the majority of them are low-skilled workers.<sup>50</sup> 68% of the men and 85% percent of the women Syrian refugees aged between 18-59 either cannot speak Turkish at all or have very basic level of knowledge.<sup>51</sup>

All of the key reasons outlined above cause and lead to a high proportion of Syrian refugees working in the informal labor market. Furthermore, the Covid-19 outbreak impacted Syrian migrants' ability to participate in formal employment due to disruptions in work permit processing processes. <sup>52</sup> We can also comment that the dynamics in the Turkish labor market also forces Syrian refugees to be employed in the informal labor market. Informality has always been an issue even for the Turkish citizens as we have seen in Part 1 of this chapter that today in the Turkish labor market informality of labor accounts around 25%.

The vast majority of Syrian refugees are working informally in low-skilled and low-paid occupations (lower than minimum wage) in Turkey.<sup>53</sup> Although the lack of official data makes the estimations relatively difficult, according to current estimates there are roughly 800.000 Syrian refugees who are working informally in the Turkish labor market. <sup>54</sup>

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<sup>49</sup> **ILO- Geneva.** 2021. "Promoting Decent Work in Refugee and Mixed Migration Contexts. A South-South Triangular Cooperation (SSTC) Initiative Between Turkey and Colombia"

<sup>50</sup> **UNCHR.** 2021. "Regional Refugee and Resilience Plan (3RP): Turkey Country Chapter 2021-2022"

<sup>51</sup> **World Food Program Turkey Country Office.** 2020. "Comprehensive Vulnerability Monitoring Exercise (CVME) Round 5"

<sup>52</sup> **UN.** 2020. "Covid-19 Socio- Economic Impact Assessment Report, Turkey."

<sup>53</sup> **ILO- Geneva.** 2021. "Promoting Decent Work in Refugee and Mixed Migration Contexts. A South-South Triangular Cooperation (SSTC) Initiative Between Turkey and Colombia"

<sup>54</sup> **UNCHR.** 2021. "Regional Refugee and Resilience Plan (3RP): Turkey Country Chapter 2021-2022"

It is vital to emphasize that the majority of these informal workers cannot even reach the minimum wage level of salary. Therefore around 45% of Syrian refugees live below the poverty line whereas 39% of them are classified as multidimensionally poor.<sup>55</sup>

Table 1: Key labour market statistics, by sex and nationality				
	Group	Rate (%)		
		Participation	Unemployment	NEET
Syrian	Men	81.0	12.3	19.6
	Women	13.7	18.2	82.2
	All	47.5	13.1	50.1
Turkish	Men	77.9	9.6	12.6
	Women	37.6	14.3	30.7
	All	57.8	11.1	21.5

**Figure 33: Labor market participation and unemployment rates in Turkish labor market for Syrians and Turkish people by gender**

Source: ILO-Geneva. 2021. “Promoting Decent Work in Refugee and Mixed Migration Contexts. A South-South Triangular Cooperation (SSTC) Initiative Between Turkey and Colombia”

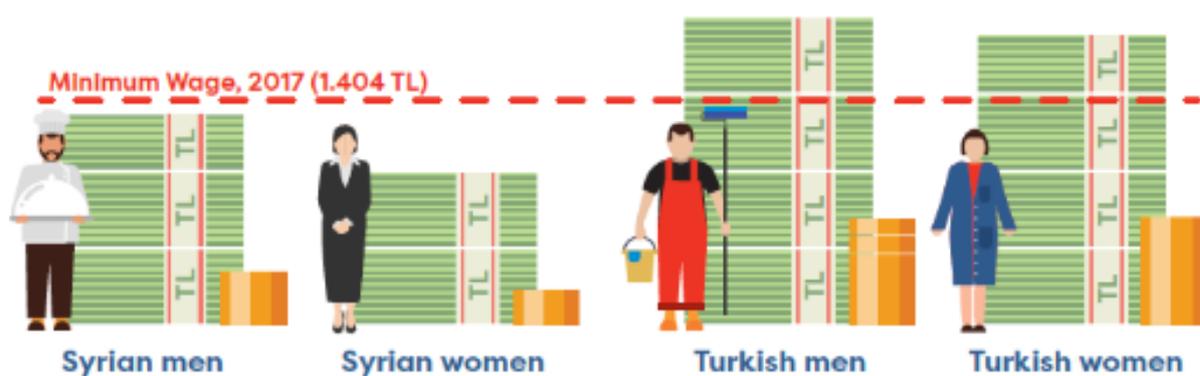
Figure 33 shows us around 47.5% of the Syrians in the working age between 15-69 participates in the labor force. As we already mentioned the low number of work permits issued, we know that this participation rate comes from mostly being employed in the informal labor market. The gender gap in labor participation between Syrian men and women is massive. We have reported that there was a considerable (6%- 94%) difference in the issuing of work permits, but we can comment from the above figure that the gap also exists in the informal sector. Hence, it seems there are significant barriers for Syrian women to participate in labor either formally or informally. According to surveys, Syrian women are not able to participate the labor market not only because of the labor market dynamics but also because they have obstacles such as not having someone else to take care of the children, family members that do not allow women to work outside of the house or having elderly or disabled family member in the house that needs care.<sup>56</sup>

Given that the majority of Syrian refugees are working in the informal labor market, it is not surprising that they are earning less than the minimum wage, and those who have been granted

<sup>55</sup> World Food Program Turkey Country Office. 2020. “Comprehensive Vulnerability Monitoring Exercise (CVME) Round 5”

<sup>56</sup> BM Kadın Birimi ve ASAM-SGDD. 2018. “Suriyeli Kadın ve Kız Çocukların İhtiyaç Analizi”

work permits are mostly earning the minimum wage. The main reason for this, they are working mostly for low-skilled jobs. It is mostly due to their lack of education or language skills. However, even the highly skilled Syrians with Turkish language proficiency are generally forced to be employed in low skilled jobs because of lack of recognition of their diplomas or certificates or their primarily acquired skills Working informally exposes refugees to risk not only because of lower income, but also because of longer working hours, safety and health issues, and a lack of representation at work.<sup>57</sup>



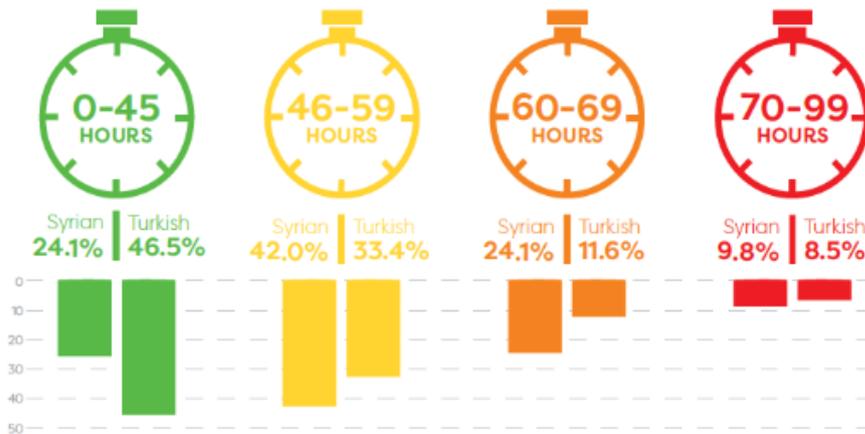
**Figure 34: Average wages earned by Turkish- Syrian men and women in 2017 when the min. wage as 1404 Turkish lira**

*Source:* ILO. 2020 “Syrians in the Turkish Labour Market, Turkey”, data from TURKSTAT Household Labor Force Survey 2017.

From the Figure 34 above, we can see that the average salaries for Syrian men and women are below the minimum wage level in 2017, whereas for both Turkish men and women it's above the minimum wage. Women are a disadvantageous group for both Syrians and Turkish. Syrian women earn roughly 25% less than the minimum wage whereas Syrian men earn around 5% less according to ILO estimates.<sup>58</sup> This clearly shows that the lack of bargaining power of refugees forces them to settle for the disadvantageous conditions in the labor market.

<sup>57</sup> ILO- Geneva. 2021. “Promoting Decent Work in Refugee and Mixed Migration Contexts. A South-South Triangular Cooperation (SSTC) Initiative Between Turkey and Colombia”

<sup>58</sup> ILO. 2020 “Syrians in the Turkish Labour Market, Turkey”

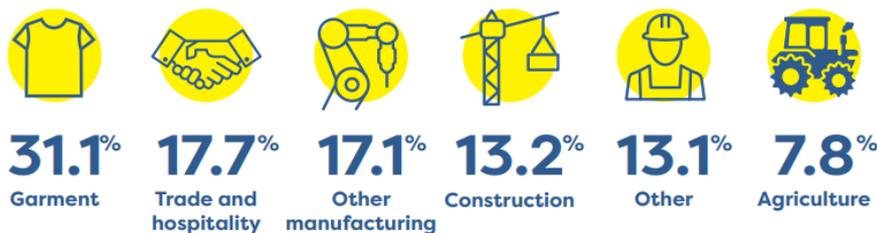


**Figure 35: Working hours of Turkish and Syrian people in Turkish labor market**

Source: ILO. 2020 “Syrians in the Turkish Labour Market, Turkey”, data from TURKSTAT Household Labor Force Survey 2017.

From the Figure 35 above we can see that in average Syrian workers work much higher hours than their Turkish counterparts where most of them work over 45 hours per week by exceeding the maximum legal working hours in Turkey, only 24% of them are able to work in legal working time per week and 76% of them are working more hours by not even achieving the minimum wage requirements.

### Sectors (in percentage)



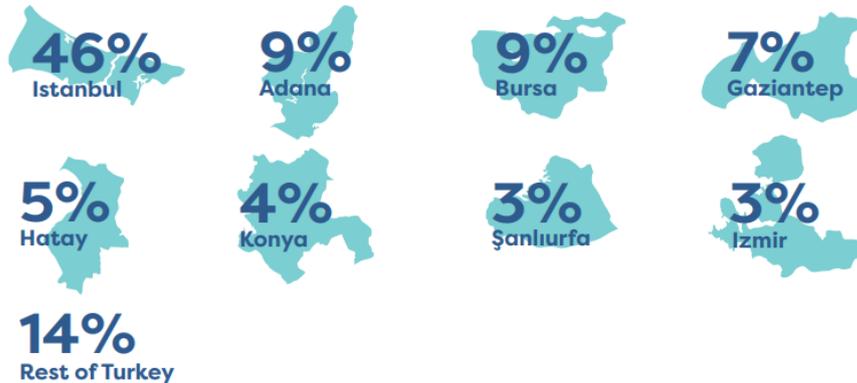
**Figure 36: Syrian refugees working in different sectors by percentages**

Source: ILO. 2020 “Syrians in the Turkish Labour Market, Turkey”, data from TURKSTAT Household Labor Force Survey 2017.

As we can observe from the Figure 36 above, most of the Syrian refugees are working in factories especially in the textile sector, manufacturing, and construction. These sectors are known as they require low skilled work force, and they are the industries in general the informality of labor is high. Syrian employees work in these sectors due to lack of educational background and also, since most of them could not receive work permits from the government, they had to work informally without any formal registration.

## Provinces (percentage of Syrian workers by sub-province\*)

\*Sub-provinces represent NUTS-2 classifications used by TURKSTAT.



**Figure 37: Percentage of Syrian refugees working by Sub-provinces**

Source: ILO. 2020 “Syrians in the Turkish Labour Market, Turkey”, data from TURKSTAT Household Labor Force Survey 2017.

Figure 37 demonstrates that Istanbul has the highest percentage of Syrian refugees who are working. Eastern cities, Gaziantep, Adana, Hatay and Şanlıurfa have higher percentages of Syrian workers compared to Anatolian, Aegean and Black Sea regions which is in line with the population distribution. As we have mentioned earlier, under law 8375 Syrian refugees can be employed formally only in the provinces where they are officially registered, however we can see from Figure 37, Istanbul is the city where 46% of the Syrian refugees work whether informal or formal, this situation can be interpreted as Syrian refugees move to Istanbul in the hope for finding a job despite the fact that they are only allowed to work formally in the registered cities.

### ***The Substitutionality/ Complementarity of Syrian Migrants to Native Turkish Workers:***

To explore the impact of Syrian refugees on the Turkish labor market on native Turkish employees, we must first return to the discussion of substitutionality and complementarity that we discussed in the first chapter of this thesis work. It is critical to understand if Syrian refugees and Turkish locals are substitutes or complements in the Turkish labor market in order to comprehend how the Syrian refugees' entry into the labor market affects Turkish natives. To determine if they are substitutes or complements, we must remind ourselves of the degree of education of the Syrian refugees, the sectors in which they are working, and whether they are employed informally or formally. As we indicated in Chapter 2 of this thesis work, the majority of Syrian refugees as they are coming from an undeveloped country are severely uneducated, between the ages of 18 and 59, just 17% of males and 16% of females have completed high school or university.<sup>59</sup> And a large part of them did not have any occupation before their arrival to Turkey or they were employed majorly in manual labor.<sup>60</sup> As we have also previously mentioned, they are mostly employed in low skilled sectors such as garment, trade and hospitality, manufacturing, construction, and agriculture. Moreover, most of them are working informally.

Considering all of these characteristics, we can conclude that Syrian refugees can be imperfect substitutes to highly uneducated Turkish native workers who are working as workers in low skilled sectors such as garment, manufacturing, construction and agriculture as Syrians are willing to or forced to work for lower wages in these industries. They are imperfect substitutes, not perfect substitutes as we have mentioned in chapter 1 of this thesis work. Despite having the same occupational capabilities, Syrians have the disadvantage of not speaking Turkish well enough, not knowing Turkish culture well enough, not having a large enough network and may be suffering from racism which makes them imperfect substitutes and perfect substitutes. On the other hand, as Syrians do not have access to medium to highly skilled works, they are complements to Turkish natives those who are employed in medium to high skilled works.

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<sup>59</sup> **World Food Program Turkey Country Office.** 2020. "Comprehensive Vulnerability Monitoring Exercise (CVME) Round 5"

<sup>60</sup> **Ministry of Interior, Disaster and Emergency Management Presidency.** 2017. "Türkiye'deki Suriyelilerin Demografik Görünümü, Yaşam Koşulları ve Gelecek Beklentilerine Yönelik Saha Araştırması"

### ***Empirical Studies About Syrian Migrants Effect in the Turkish Labor Market in terms of Wages and Employment:***

Considering that Syrian refugees are imperfect substitutes to low skilled native Turkish workers and complements to the medium-high skilled native Turkish workers, we would expect theoretically as we mentioned in detailed in chapter 1 on this thesis work.

- In short run, the existence of Syrian refugees in the low skilled Turkish labor market, would increase the labor supply which would cause the wage levels in the low skilled labor market to decrease hence voluntary unemployment of native Turkish workers could be observed. On the other hand, in the high skilled labor market, existence of Syrians in the low skilled labor market would increase the demand for the skilled labor as the employment increases in the low skilled market and wage levels for highly skilled native workers would increase, therefore to sum up in short-run theoretically it is expected that low skilled native workers are worse off instead high skilled native workers are better off by the existence of the Syrian refugees in the labor market.

However, as the traditional theoretical frameworks is not enough to analyze the effect, in this part of the thesis we are going to address some empirical studies which examined how the entrance of Syrians to the low skilled labor market in Turkey affected the native Turkish workers in the market in terms of employment and wage. Despite the fact that the phenomenon of Syrian workers entering the Turkish labor market is a relatively new research area, there is a developing literature. In this developing literature, most of the studies try to analyze the “sudden labor supply shock”.

One of the earliest studies about how Syrian refugees impact the Turkish labor market is conducted by Del Caprio and Wagner in 2015. In their research they have found the labor supply shock by Syrian refugees caused displacements in the informal labor market for almost all types of workers (male/female, young/old etc.) They found out that Syrian refugee workers cause low-skilled native Turkish workers to lose their jobs in informal employment. On average for each 10 Syrian informal workers, around 6-7 Turkish informal workers lose their job, and they are being substituted by cheaper Syrian workers. They also found that employment of Syrian refugee workers in the low-skilled informal market is slightly increasing demand for high-skilled native Turkish workers in the formal labor market. (Del Carpio and Wagner, 2015)

Similarly, the results corresponding to Del Carpio, and Wagner's findings are achieved by other studies in the following years. It is important to note that when Del Caprio and Wagner conducted their research in 2015, the Syrian refugees had no access into formal employment as there was no legal basis. As a result, studies conducted in the following years of 2016 may be more important in determining how Syrian refugees' engagement in the Turkish labor market affects the formal and informal labor markets.

Ceritoglu et. al (2017) found that the Syrians refugees do not cause statistically significant changes on the wage levels however they affect the employment of native Turkish workers negatively. Specifically, the low skilled Turkish workers in the informal labor market are being excluded from the labor market and the unemployment rate for low skilled Turkish workers is increasing.

Moreover, another research conducted by Aksu et. al (2018) matching results with Del Caprio and Wagner (2015) and Ceritoglu et. al (2017). They claim that as the Syrian refugees are employed mostly in informal employment, they are not creating any threat to native Turkish workers who are working in the formal employment, on the other hand they are a significant threat for native Turkish workers who are employed informally. They found significant results from their study which they used difference-in-difference instrumental variables method, that Syrian refugee workers in the informal economy negatively affects the native Turkish workers in the informal economy and the demand for low-skilled workers are highly elastic which means they are easily substitutable, whereas the Turkish people in formal employment who are medium to high skilled workers are not really affected by the Syrian refugee workers showing their demand is more inelastic. Differently from the study of Ceritoglu et. al (2017), Aksu et. al (2018) found evidence that wages in the informal economy are also affected by the Syrian refugees' labor supply shock which pulls down the wages in the informal sectors.

There is no consensus on the literature about how the Syrian refugees are affecting the employment and wages in the Turkish labor market. The studies of Del Caprio and Wagner (2015), Ceritoglu et. al (2017) and Aksu et. al (2018) claiming negative effects on low skilled Turkish native workers, there are also studies claiming that they found no evidence of native workers being affected by the Syrian refugee workers' entry into the Turkish labor market.

The study of Akgündüz, Van den Berg, and Hassink, which they conducted in 2015 with the study of Del Carpio and Wagner, is one of the earliest studies on the influence of Syrian refugees

on the Turkish labor market (2015). However, their findings differ dramatically from those of Del Carpio and Wagner. Even though there is a supply shock, they maintain that there is no major effect on the labor market and employment of native workers. (Akgündüz et. al 2015)

Another recent study which also suggests that there is no significant effect can be seen in the Turkish labor market for the native workers. Compared with other studies they portray a much optimistic picture that the low skilled native workers experience only small wage and employment losses whereas the higher skilled workers 'employment increased in small percentage which they explained by increased entrepreneurial activities by native-migrant workers complementarity. (Cengiz and Tekguc, 2021)

The impact of the Syrian refugees on Turkish natives' employment and wage levels are investigated also in terms of level of hosting level areas development as the development of eastern cities and western cities are significantly different in Turkey. By using a synthetic control method, it is found that in less developed areas, the effect of Syrian refugees in employment of Turkish natives is significantly more adverse. (Aracı et. al, 2021) Therefore, we can say that in the eastern cities of Turkey, the native workers are more negatively affected by the Syrian refugee workers, especially because the informality in the eastern cities are higher and also the opportunities are limited, hence the worker demand is highly elastic.

### ***What Could be the Long-term Effect of Syrian Migrants in the Turkish Labor Market?:***

We have discussed in the first chapter of this thesis work that the traditional labor market framework suggests that in the long run the capital-labor ratio comes back to its initial level just like before the migrant workers being integrated into the labor market. The empirical evidence from Germany, UK and OECD countries has also confirmed the traditional labor market framework. (Ottaviano and Peri, 2006; Brücker and Jahn 2008; Ortega and Peri, 2009)

As the migrant integration into the Turkish labor market is relatively a new phenomenon, it is hard to estimate what would be the long-term effects which will be an area to investigate in the Turkish labor market for further research. However, we can comment that the empirical findings supporting long-term traditional labor market framework suggesting the capital-labor ratio is going back to the initial levels are found in the labor markets of developed countries where the migrant labor supply was initially created by a labor demand for low skilled workers as these countries were generally lack of low skilled workers. In Turkey, the excess labor supply was not created as in these countries by the labor demand due to lack of low skilled workers, it was created by the mass migration influx.

As well, in these countries the economic conditions in the long run were able to accommodate the capital-labor ratios, due to their capacity of to be able to increase the capital in the long run. In Turkey, the economic conditions such as the extreme value loss in Turkish lira continuing since 2018, high inflation and low foreign direct investment levels can block the country's capacity to increase the capital in the long run, hence we may comment that it might take much longer in Turkey to achieve initial capital-labor ratios. The capacity of Turkey reaching the initial capital-labor ratio can be an interesting topic for future investigations, to be able to understand the Syrian migration effect in the long run for the Turkish labor market.

## CONCLUSION:

All of the sections completed throughout this thesis work will help us come to a conclusion on the current state of the Turkish labor market and how mass migration which Turkey is facing as a host country affects the labor market in the country.

Chapter two was dedicated to understanding migration movements in Turkey with the focus of the last decade. We have seen that the country has become in the last decade the country that hosts most of the refugees in the world with the mass migration towards Turkey from a country that was giving negative net migration just a decade ago. The mass migration to Turkey has started with the civil war in 2011 in Syria and Turkey has become the first destination choice for Syrians who are seeking for protection due to its “open door policy” and geographical closeness. Since around 70% of the foreign nationals accommodating in Turkey are Syrian origin people which accounts for more than 3.7 million people, we have chosen Syrians as target group to understand the effect of their participation in the labor market. We have seen that 99% of the Syrian refugees in Turkey today do not live any more in the refugee camps built close to areas to the Syrian-Turkish border which means they are actively participating in the labor market. Moreover, we investigated the socio-demographic profile of the Syrian refugees and we found that they are significantly uneducated with university graduation rates for women 4% and for men 6%. Also, before their arrival to Turkey around 76% of the women and 53% of men had no occupation and the ones who had occupation were mostly employed in manual labor or craftsman. Therefore, we could conclude that the Syrian refugees are low skilled labor.

In 2016, the legal procedure has given the possibility to the Syrian refugees to be able to participate in the labor market formally, so the obstacle of their formal employment has been eliminated. However, as we have discussed in the chapter three of the thesis, we have seen that informality in the Turkish labor market is quite high and even though it is estimated that there are around 800.000 Syrian refugees who are working in the Turkish labor market, there were only 62.369 work permits issued to Syrians in 2020. This proves that around 93% of the Syrian refugees are employed in the informal labor market in Turkey. Therefore, we could reach a conclusion that low skilled Syrian refugees are imperfect substitutes for low skilled Turkish native workers who are employed in the informal labor market since they are competing for the same low skilled jobs especially in sectors where Syrians are mostly employed such as garment, manufacturing, construction, and agriculture which most of the employees work informally.

However, they are complements to highly skilled native Turkish workers who are formally employed.

As we have conducted our literature review in chapter one of the thesis about how migration affects the host countries' labor market, we have seen that within the traditional labor market framework and as well by the empirical studies we have examined that low skilled migrant workers increase the labor supply in the low skilled labor market and the excess supply causes wage levels to decrease and pushes out some native unskilled workers out from the labor in the short run. Even though there is no general agreement within the empirical literature about the size of the adverse effect on the native unskilled workers as some found serious negative impacts whereas some discovered small impacts, we can still say literature more or less units on the negative impact on the native unskilled workers in the short run.

Authors looking into the effects of Syrian refugees entering the Turkish job market came up with similar findings. The studies of Del Caprio and Wagner (2015), Ceritoglu et. al (2017) and Aksu et. al (2018) claims that Syrian refugees have negative effects on low skilled Turkish native workers in the informal labor market. We can conclude that the demand for unskilled labor in the informal labor market in Turkey is highly elastic, as Syrians are willing to work for lower wages (mostly lower than minimum wages and lower than unskilled Turkish workers in the informal labor market), they cause unemployment for the unskilled Turkish workers, and they lower the wage levels in the informal Turkish labor market. As 93% of them are working in the informal labor market, their effect on the formal labor market is limited. However, the recent study of Cengiz and Tekguc (2021) proves that Syrian refugees are complements for high skilled native workers as they found the high skilled native workers' employment has increased with a small percentage which they explained by increased entrepreneurial activities by native-migrant workers complementarity.

It is also important to mention that as the Syrian refugee population in Turkey has not dispersed homogeneously which we have seen previously that the majority of them are in Istanbul, however they count only 3% of the total population in Istanbul while the intensity reaches around 18-20% of the Eastern provinces which are less developed areas. Aracı et. al (2021) found that the effect of Syrian refugees in employment of Turkish natives is significantly more adverse in the Eastern provinces. This is due to higher informality in the labor market in Eastern provinces, limited job opportunities and higher intensity of Syrian refugees.

As the participation of the Syrian refugees in the Turkish labor market is relatively a new phenomenon, it is hard to estimate what would be the long-term effects. However, as we have mentioned in the first chapter of the thesis it is expected by the traditional labor market framework with the migrants that in the long run the capital-labor ratio comes back to its initial level with the increase in the capital, hence the wages remain unchanged whereas the labor market accommodates more workers. This theory has been also supported by the empirical findings for developed countries (Ottaviano and Peri, 2006 ; Brücker and Jahn 2008 ; Ortega and Peri, 2009) Despite the fact that that there is a need to conduct more research about how fast the capital-labor ratio can be adjusted in Turkey, considering the stringent economic condition in Turkey right now with the high inflation environment, value losses in Turkish lira and considerably lower FDI, we can comment that it may take a long while to Turkish labor market to adjust its original capital-labor ratios, especially in the informal sectors such as garment, manufacturing, construction.

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