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İSDEP

SUPPORT FOR TRANSITION TO LABOR MARKET PROJECT

PROVINCE-BASED SOCIO-ECONOMIC SECTOR CURRENT SITUATION REPORT

İSTANBUL

REPUBLIC OF TÜRKİYE
MINISTRY OF LABOUR AND SOCIAL SECURITY

İŞKUR

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TÜRK KIZILAY
COMMUNITY-BASED MIGRATION PROGRAMS
SOCIO-ECONOMIC EMPOWERMENT PROGRAM

SUPPORT FOR TRANSITION TO LABOR MARKET PROJECT
PROVINCE-BASED SOCIO-ECONOMIC SECTOR CURRENT SITUATION REPORT

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PROVINCE-BASED SOCIO-ECONOMIC SECTOR CURRENT SITUATION REPORT
(İSTANBUL)

REPUBLIC OF TÜRKİYE MINISTRY OF LABOUR AND SOCIAL SECURITY

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ABBREVIATIONS

ADNKS : Address Based Population Registration System

BAG-KUR : Independent Employees Social Security Institution

BIST : Borsa İstanbul

GDP : Gross Domestic Product

GVA : Gross Value Added

IBB : İstanbul Metropolitan Municipality

HR : Human Resources

ISKUR : Turkish Employment Agency

KOSGEB : Small and Medium Enterprises Development Organization

NACE : Statistical Classification of Economic Activities of the European Community

SSI : Social Security Institution

TURKSTAT : Turkish Statistical Institute

OIZ : Organized Industrial Zone

NGO : Non-Governmental Organization

SuTP : Syrians under Temporary Protection

INTRODUCTION

As Türkiye's largest metropolis and economic center, İstanbul serves as the driving force of the national economy in many sectors such as industry, trade, finance and tourism. With a population of around 16 million and a large labor pool, İstanbul is an important center of attraction for both internal migration and international migrant mobility. Contributing to more than 30% of Türkiye's Gross Domestic Product (GDP)İstanbul is also home to a large share of export and import activities.

İstanbul's labor market offers a wide range of employment opportunities, particularly in the industrial, service, technology and financial sectors. While the service sector covers the majority of the labor force, the industrial and manufacturing sectors continue to be an important source of employment. Especially with the digital transformation process, technology-oriented professions and high-skill jobs are becoming increasingly important. However, alongside this dynamic structure, the city faces major challenges such as low employment rates among women and youth, informal work, integration of migrant workers as well as a lack of vocational skills.

The European and Anatolian sides of İstanbul have different economic dynamics in terms of the labor market. While the European side is dominated by business and financial centers, and the industrial and service sectors are dominant, the Anatolian side is characterized by industrial zones, logistics centers and small and medium-sized enterprises. These regional differences directly affect employment dynamics, labor demands and sectoral developments.

The İstanbul Socio-Economic Sector Current Situation Report, prepared in this context, presents a comprehensive assessment of the socio-economic structure of the province, the current situation analysis by sectors and the dynamics of the labor market. The report consists of five sections: The report consists of five main sections: Literature Review, Secondary Data Analysis, Survey Analysis and Findings, In-Depth Interview Analysis and Findings, and General Evaluation and Policy Recommendations.

In the Literature Review, existing studies on İstanbul were examined and prominent sectors were evaluated. From the employers' perspective, unemployment, migrant workers and vocational training are discussed and sectoral employment dynamics in İstanbul are evaluated. In addition, summary information on qualified and unqualified labor, youth and women employment, and seasonal labor demands are presented.

The secondary data section includes analysis on population, labor force and employment, social security and working life, and migration patterns in İstanbul, based primarily on data from TURKSTAT, ISKUR, SSI, the Ministry of Labor and Social Security, and the Presidency of Migration Management.

Within the scope of the fieldwork, the surveys conducted in İstanbul were divided into European and Anatolian sides, and the data were analyzed accordingly. To ensure broad participation, a total of 165 stakeholders were surveyed, with 103 from the European side and 62 from the Anatolian side. In the third section, the survey results are elaborated with a comparative analysis of the labor market dynamics specific to both sides. The fourth section presents the findings from the in-depth interviews.

In the final section, based on all collected data and analysis, recommendations and strategies are offered to improve İstanbul's labor market. Policy suggestions aim to promote sustainable employment and social cohesion.

The İstanbul Socio-Economic Sector Current Situation Report provides a comprehensive framework for decision-makers and stakeholders who play an active role in employment processes to understand the structure of the labor market and provide strategic guidance. In particular, public and private sector representatives seeking greater integration into the labor market will find this report useful for evaluating prominent employment areas, understanding employer expectations, and identifying effective job placement strategies.

Accordingly, the report aims to provide policymakers, business representatives and academia with a comprehensive resource on the province's labor market by presenting the current socio-economic dynamics of İstanbul. It also aims to contribute to sustainable growth and development processes by providing strategic road maps for more effective utilization of regional economic potential.

“This report aims to provide a comprehensive resource for policy makers, business representatives and academia on the labor market in İstanbul by presenting the current socio-economic dynamics of the province.”

CHAPTER I

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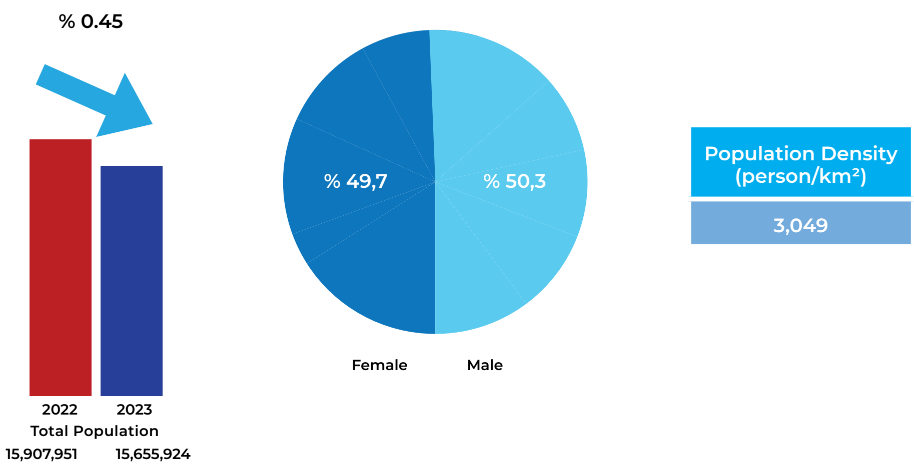
CHAPTER I

1. LITERATURE REVIEW - ANALYSIS ON DEMOGRAPHIC, SOCIO-ECONOMIC STRUCTURE AND LABOR AND EMPLOYMENT SITUATION IN İSTANBUL

As of 2024, İstanbul is the most populous city in Türkiye, with a population of 15,701,602. It accounts for 18.4% of the country's total population, making it one of the most densely populated urban centers. The working-age population constitutes 71.87% of the city's residents, contributing to a highly competitive labor market environment. İstanbul has a highly demographically diverse social structure thanks to high levels of immigration and emigration, which contributes to the dynamic nature of the labor market.

Economically, İstanbul is Türkiye's locomotive city, generating 30.38% of the country's total GDP. In terms of industry and trade, İstanbul is the country's largest city, accounting for 48.25% of exports and 50.89% of imports. İstanbul is home to 33,455 industrial enterprises, contributing 22.46% to Türkiye's total industrial production. Türkiye's leading companies in sectors such as textile, automotive, chemical, metalworking and machinery industries operate in İstanbul. In addition, the ISO 500 list of Türkiye's largest industrial enterprises includes many İstanbul-based companies. These sectors have made İstanbul an important player not only at the national level but also in global trade.

Graphic 1. Demographic Overview of İstanbul Province (2022–2023)



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In the finance and banking sector, İstanbul is also considered as the center of Türkiye. İstanbul accounts for 47.62% of total deposits and 41.55% of total loans in Türkiye. The city is home to Borsa İstanbul (BIST) and the headquarters of Türkiye's leading financial institutions, forming the country's financial infrastructure. Türkiye's largest banks such as Ziraat Bank, İşbank and Garanti BBVA operate in İstanbul and are integrated with global financial markets. With the İstanbul Finance Center project, the city aims to strengthen its position in international financial markets and is on its way to becoming a regional financial center.

Tourism plays an important role in the economic structure of İstanbul. Welcoming around 15 million tourists annually, the city is the most visited destination in Türkiye. With its Historic Peninsula, Bosphorus view, cultural events and shopping centers, İstanbul is an attractive destination for both domestic and international tourists. Historical sites such as Hagia Sophia, Topkapi Palace, Grand Bazaar and Blue Mosque constitute the cultural heritage of İstanbul. It also has a well-developed infrastructure in areas such as congress tourism, gastronomy, and health tourism. With its economic, cultural, and social richness, İstanbul continues to play a pivotal role in Türkiye's growth and development.

Table 1. Demographic Breakdown of İstanbul by Variable

Category	Values
Total Population (2023)	15,655,924
City Population (%)	99,0
Rural Population (%)	1,0
Young Population (0-14 Years) (%)	20,94
Employable Population (Age 15-64) (%)	71,59
Elderly Population (Age 65+) (%)	7,47
Female Population (%)	49,7
Male Population (%)	50,3

Source: TURKSTAT, 2023

1.1. Effects of Regional, Cultural and Economic Factors

Thanks to its strategic location and cultural diversity throughout history, İstanbul has been directly influenced by regional factors and has become Türkiye's most important economic center. As a bridge connecting Europe and Asia, the city is at the center of international trade and financial mobility. This commercial and economic interaction, dating back to the Ottoman period, has established İstanbul as a major hub for industry, services, and technology. Today, İstanbul generates around 30% of Türkiye's total GDP, while accounting for 48.25% of the country's exports and 50.89% of its imports (İstanbul Chamber of Industry, İstanbul, 2023).

Regional cultural factors contribute greatly to the economic structure of İstanbul. As a metropolis shaped by immigration, the city is home to diverse ethnic and cultural communities. This diversity creates great dynamism in İstanbul's cultural and artistic activities as well as in the business world. The number of foreign-owned firms operating in İstanbul is growing every year, and the Turkish headquarters of multinational companies are often located in the city. At the same time, the financial sector in İstanbul is directly affected by the dynamism in national and international markets. The city accounts for 47.62% of Türkiye's total bank deposits and 41.55% of total loans, according to the İstanbul Regional Plan (2024–2028).

In terms of economic factors, İstanbul is the center of Türkiye's manufacturing and industrial sectors. According to the İstanbul Chamber of Industry (ISO), the 33,455 industrial enterprises operating in the city play a key role in national industrial production and represent a significant share of the sector. In particular, textile, automotive, chemical, metalworking and machinery industries are the main sectors of İstanbul's economy. İstanbul is also an

important location for digital transformation and innovation ecosystems, with start-up investments and technology-based entrepreneurship activities concentrated in the city (İstanbul Chamber of Industry, 2023).

Regional economic dynamics also affect İstanbul's urban structure and demographic changes. The city has the largest labor market in Türkiye, with 71.6% of its population in the working-age group. This makes İstanbul one of the most important centers sustaining Türkiye's economic growth. However, rapid population growth and migration movements have led to inequalities in the distribution of income within the city and to an increase in housing prices. The housing price index in İstanbul is above the average for Türkiye, and urban regeneration projects have been implemented as an important strategy to stabilize this situation (İstanbul Regional Plan, 2024-2028).

Table 2. İstanbul City Profile: Key Statistics

Indicators	Value	Share in Türkiye (%)	Provincial Ranking
Province area (km²)	5,461	0,7	64
Population (2021)	15,840,900	18,71	1
Population growth rate (per thousand) (2020/2021)	24,18		9
Population density (people/km²) (2021)	3,049		1
Working age population (15-64 years) (2021)	11,341,124	19,74	1
Young population (15-24 years) (2021)	2,339,946	18,04	1
Total number of active insured (2021)	5,999,959	24,25	1
Number of compulsory insured (4/a) (2021)	4,485,393	27,74	1
Industry (05-35-09-33) number of compulsory insured (4/a) (2021)	1,024,988	22,62	1
Gross domestic product (GDP) at current prices (Thousand TRY) (2021)	2,202,155,938	30,38	1
Industrial GDP at current prices (BCDE) (Thousand TRY) (2021)	413,787,108	21,91	1
Manufacturing GDP at current prices (C) (Thousand TRY) (2021)	363,812,375	22,6	1
GDP per capita (USD) (2021)	15,666		2
Exports (Thousand USD) (2021)	108,666,008	48,25	1
Imports (Thousand USD) (2021)	138,122,531	50,89	1
Foreign trade balance (Thousand USD) (2021)	-29,456,523		81
Ratio of exports to imports (%) (2021)	78,67		67
Total deposits (Million TRY) (2021)	2,343,802	47,62	1
Total loans (Million TRY) (2021)	1,826,564	41,55	1
Loans/deposits (%) (2021)	77,93		62
Number of incentive certificates (Number) (2021)	1,808	14,19	1
Incentive certificate fixed investment amount (Million TRY) (2021)	31,363	11,41	1

Source: TURKSTAT 2021 Report

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As the table shows, İstanbul is Türkiye's largest metropolis and economic center, home to 18.71% of the country's total population. As of 2021, İstanbul is the most populous city with 15.8 million inhabitants and ranks first in Türkiye in terms of population density with 3,049 people/km². The youth population rate is 18.04%, with more than 2.3 million people aged 15-24 in the city. This indicates that İstanbul possesses a dynamic labor market, which enhances its potential for economic growth. However, rapid population growth and high levels of internal migration increase the demand for infrastructure and housing. İstanbulI terms of economic indicators, İstanbul is Türkiye's largest production and trade center. As of 2021, the city's gross domestic product (GDP) at current prices was estimated at TRY 2.2 trillion, accounting for 30.38% of the country's total GDP. The industrial sector holds a significant share in İstanbul, with industrial GDP at current prices reaching 413.7 billion TRY—accounting for 21.91% of the country's total GDP. Additionally, GDP per capita stands at USD 15,666, placing İstanbul second among all provinces in this indicator. These figures highlight that İstanbul is not only a hub for industry and trade, but also a center of high value-added production.

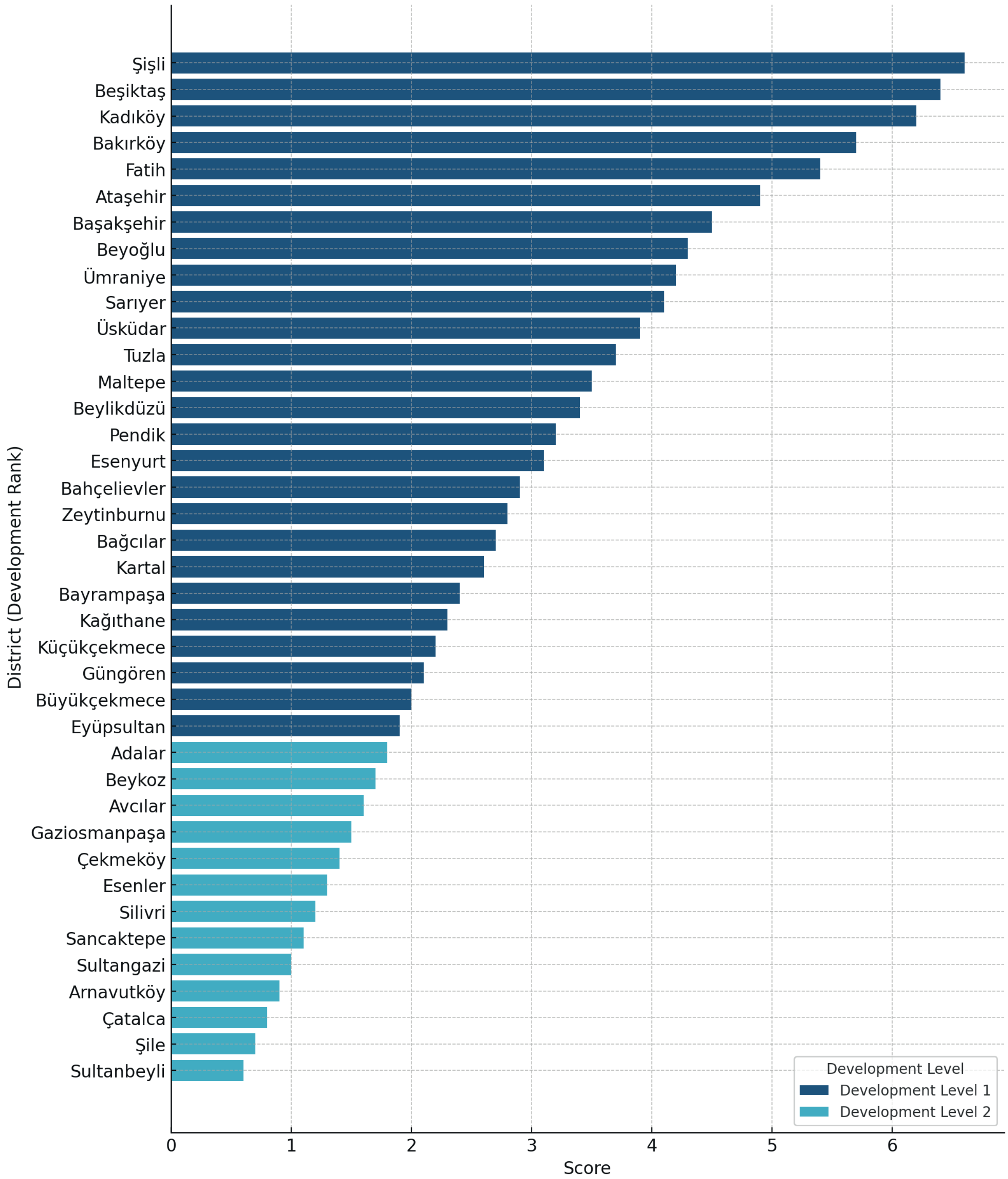
In terms of foreign trade, İ stanbul stands out as Türkiye's largest export and import center. In 2021, İstanbul's total exports amounted to 108.6 billion USD, accounting for 48.25% of Türkiye's total exports. In the same period, the value of imports reached 138.1 billion USD, with 50.89% of total imports coming from İstanbul. However, İstanbul's foreign trade balance is negative at -29.45 billion USD. This situation leads to a foreign trade deficit due to import dependency. The city's exports-to-imports ratio is 78.67%, ranking 67th in Türkiye. This ratio shows that although İstanbul's export capacity is strong, its import dependency is high.

> **İstanbul is Türkiye's largest metropolis and economic centre, home to 18.71% of the country's total population. It is Türkiye's largest manufacturing and trade centre.**

İstanbul also stands out as Türkiye's strongest city in financial terms. As of 2021, total deposits in the city reached TRY 2.34 trillion, accounting for 47.62% of deposits in Türkiye. Total loan volume amounted to TRY 1.82 trillion, accounting for 41.55% of total loans. İstanbul's loan-to-deposit ratio was 77.93%, ranking 62nd in Türkiye. This ratio indicates that banks extend loans at a lower rate compared to the deposit assets in İstanbul. The fact that Borsa İstanbul and major financial institutions are headquartered in the city increases the impact of İstanbul in national and international financial markets.

In addition to industry and trade, İstanbul holds the largest share of investment incentives in Türkiye. In 2021, a total of 1,808 incentive certificates were issued in the city, representing 14.19% of all incentives granted nationwide. The total amount of fixed investments made within the scope of incentive certificates reached 31.3 billion TRY and covered 11.41% of the investments across the country. This indicates that İstanbul has a high capacity to attract investment and is one of the most important factors boosting economic growth potential. Overall, as the locomotive city of the Turkish economy, İstanbul maintains its leading position in industry, trade, finance and investment.

Figure 1. İstanbul District Development Rankings



The socio-economic development levels of districts in İstanbul vary greatly. According to an assessment of 973 districts across Türkiye, Şişli is the most developed district in İstanbul and ranks first in the country. Şişli is followed by Beşiktaş and Kadıköy, and these districts stand out as the economic, cultural and commercial centers of İstanbul. Financial services, high living standards and a strong infrastructure are among the main factors that increase the level of development of these districts. Bakırköy, Fatih, Ataşehir and Başakşehir are also among the districts with high levels of development and stand out especially with their commercial and residential investments.

Districts in the middle development level include rapidly growing and populated areas such as Beylikdüzü, Pendik, Esenyurt and Bahçelievler. These districts have been developing in recent years with increasing housing projects and transportation investments, but score lower than the higher ranked districts due to socio-economic imbalances. Districts such as Üsküdar, Sarıyer and Maltepe have a relatively more stable economic structure and maintain their level of development in terms of both residential and commercial activities.

Sultanbeyli, Arnavutköy, Sultangazi and Esenler stand out among the districts with lower levels of development. In the country-wide ranking, Sultanbeyli ranks 183rd, Arnavutköy 167th and Sultangazi 161st. Factors such as limited economic activities, low income levels and inadequate educational infrastructure in these districts negatively affect their level of development. Moreover, since these districts are largely migrant regions, they are disadvantaged in terms of economic growth due to unplanned urbanization and infrastructure deficiencies.

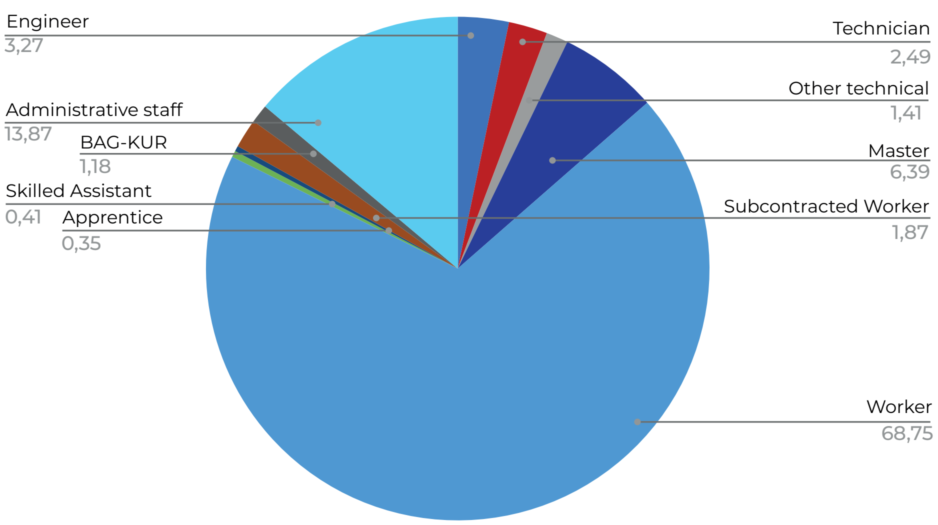
The socio-economic structure of İstanbul varies significantly across districts. Districts on the European Side are generally more developed and benefit from the trade, finance and tourism sectors. On the Anatolian side, on the other hand, development levels vary as industrial and residential areas are predominant. Urban transformation projects, transportation investments and economic incentives are considered are considered key factors in improving the social and economic conditions of underdeveloped districts.

Table 3. Breakdown of Industrial Employment by Employee Type

Employee Type	Türkiye - Number of Employees	Türkiye - Share (%)	İstanbul - Number of Employees	İstanbul - Share (%)	Share in Türkiye (%)
Engineer	174.209	4,17	26.366	3,27	15,13
Technician	137.529	3,29	20.075	2,49	14,6
Other technical	69.138	1,65	11.377	1,41	16,46
Master	270.432	6,47	51.482	6,39	19,04
Worker	2.846.464	68,13	554.004	68,75	19,46
Foremen	14.187	0,34	3.319	0,41	23,39
Apprentice	19.517	0,47	2.859	0,35	14,65
Subcontracted Worker	143.418	3,43	15.040	1,87	10,49
BAG-KUR	55.968	1,34	9.508	1,18	16,99
Administrative staff	447.203	10,7	111.740	13,87	24,99
Total	4.178.065	100	805.770	100	19,29

Source: TURKSTAT 2021 Report

Graphic 2. Breakdown of Industrial Employment by Employee Type



The table shows the distribution of industrial workers in İstanbul by job type as of 2021. İstanbul is one of the largest employment centers in Türkiye's industrial sector, home to 19.29% of total industrial workers. According to 2021 data, a total of 805,770 people work in the industrial sector in İstanbul, which is a significant portion of the total industrial employment of 4,178,065 in Türkiye. Workers constitute the largest employment group in the industrial sector. In İstanbul, 554,004 workers are employed in industry and this group covers 68.75% of the industrial employment in İstanbul. The fact that 19.46% of total industrial employment in Türkiye is concentrated in İstanbul highlights the city's significance in national industrial production.

In terms of technical personnel employment, İstanbul is a region where engineers, technicians and other technical personnel are concentrated in the industrial sector. There are 26,366 engineers, 20,075 technicians and 11,377 other technical personnel employed in İstanbul. The total share of these groups in İstanbul's industrial employment is around 7%, indicating a high need for qualified technical knowledge in industrial production. İstanbul is home to 15.13% of all industrial engineers, 14.60% of technicians, and 16.46% of other technical personnel employed across Türkiye. These ratios reveal that İstanbul's industrial structure is based on sectors requiring engineering and technical expertise and that technology-oriented production is an important component.

Other important occupational groups in the industrial sector include masters, journeymen and apprentices. In İstanbul, 51,482 masters, 3,319 journeymen and 2,859 apprentices are active in the industrial sector. Looking at the shares of these groups in total employment in Türkiye, 19.04% of masters, 23.39% of journeymen and 14.65% of apprentices are employed in İstanbul. The fact that the employment rate of journeymen is the highest in Türkiye shows that there is a great need for intermediate technical labor force in the İstanbul industrial sector. The high ratios of master and journeyman reveal that the industry needs a strong labor force not only at the engineering level but also in the field of production based on intermediate technical skills.

The employment of subcontracted workers in İstanbul's industrial sector is also considerable. In İstanbul, 15,040 subcontracted workers are employed in industry, which corresponds to 10.49% of all subcontracted workers in Türkiye. This ratio shows that İstanbul's industry is largely based on direct employment and that the subcontractor system is used relatively less. On the other hand, 9,508 people in the industrial sector in İstanbul work as BAG-KUR employees, which constitutes 16.99% of all BAG-KUR employees in Türkiye. Although the share of self-employed individuals and industrial entrepreneurs in the sector is lower compared to other groups, entrepreneurship still plays a significant role in İstanbul's industrial ecosystem.

The industrial sector in İstanbul also has the largest share of administrative staff in Türkiye. A total of 111,740 administrative staff are employed in the industrial sector in the city, representing 24.99% of all industrial management staff in Türkiye. This ratio shows that İstanbul is not only a production center but also one of the main centers where industrial administration activities are carried out. Overall, İstanbul stands out as the city with the largest share in Türkiye in terms of both direct labor employment and technical and administrative staff in the industrial sector. The intensity of industrial production, the high share of technical labor force and its strong position in the field of management reveal that İstanbul exhibits a multifaceted structure in terms of industry.

1.1.1. Agriculture and Livestock Sector

Although İstanbul is Türkiye's largest metropolis, it is also important for agriculture and animal husbandry. Although urban growth has reduced agricultural land, vegetable, fruit and dairy production continues in districts such as Çatalca, Silivri and Şile. In Şile, organic farming, beekeeping and medicinal and aromatic plant cultivation are becoming widespread, while productivity is being increased through modern greenhouse systems and vertical farming.

While dairy and livestock breeding are prominent in animal husbandry, Çatalca and Silivri stand out with cattle breeding. Ovine breeding and poultry farming also contribute to the economy. Beekeeping activities are particularly concentrated in Şile, Çatalca, and Beykoz, while aquaculture and fishing continue to play an important role along the Marmara coast.

Government subsidies encourage agricultural production and animal husbandry, provide trainings on modern agricultural techniques, and ensure the sustainability of the sector with supports such as feed, diesel oil and fertilizer. Although İstanbul stands out with its industrial and service sectors, agriculture and livestock activities are supported through rural development projects and continue to contribute to food production.

1.1.2. Industry and Manufacturing Sector

İstanbul is one of Türkiye's largest industrial and manufacturing hubs and serves as a driving force of the national economy thanks to its strategic location, transportation infrastructure and workforce capacity. According to TURKSTAT data, İstanbul's industrial GDP reached 413.7 billion TRY in 2021, accounting for 21.91% of Türkiye's total industrial production (TURKSTAT, 2022). İstanbul is Türkiye's largest trade center in terms of exports and imports, with exports of USD 108.6 billion (48.25%) and imports of USD 138.1 billion (50.89%) in 2021. However, it had a foreign trade deficit of USD 29.45 billion due to its import dependency (İstanbul Chamber of Industry, 2022). İstanbul's key industrial sectors comprise textiles, automotive, chemicals, metalworking, food, and electronics- with the city contributing 40% to Türkiye's textile exports. The automotive industry is particularly notable for its sub-industry and spare parts production, while the chemical industry is strong in the production of paints, plastics and pharmaceuticals (İstanbul Chamber of Industry, 2023).

Technological transformation and digitalization are accelerating, and investments are being made in smart production facilities with Industry 4.0 applications. More than 65% of large industrial firms actively use automation systems and digital production techniques (İstanbul Chamber of Industry, 2023). While İstanbul serves as the cornerstone of the Turkish economy with its high industrial output and export capacity, challenges such as import dependency and a foreign trade deficit remain significant. However, with ongoing technological investments and sustainable industrial policies, the city is steadily advancing toward becoming a globally competitive production center.

Table 4. GDP Trends in Türkiye and İstanbul by Sector (2016–2021)

Year	Türkiye's Total GDP (Million TRY)	Türkiye's Industrial GDP (Million TRY)	Türkiye's Manufacturing GDP (Million TRY)	Share of Industrial GDP in Türkiye's Total GDP(%)	Share of Manufacturing GDP in Türkiye's Total GDP (%)	İstanbul's Total GDP (Million TRY)	İstanbul's Industrial GDP (Million TRY)
2016	2,626,560	514,902	435,890	19,60	16,60	811,519	133,467
2017	3,133,704	646,827	551,276	20,64	17,59	973,837	159,210
2018	3,758,774	837,564	715,797	22,28	19,04	1,157,705	197,038
2019	4,311,733	942,048	788,787	21,85	18,29	1,324,091	227,158
2020	5,048,220	1,149,840	965,942	22,78	19,13	1,519,195	270,776
2021	7,248,798	1,888,149	1,609,779	26,05	22,21	2,202,155	413,787
Year	İstanbul GDP - Manufacturing (Million TRY)	Share of Industrial GDP in İstanbul GDP (%)	Share of Manufacturing GDP in İstanbul GDP (%)	İstanbul's Share in Türkiye's GDP (%)	İstanbul's Share in Türkiye's Industrial GDP (%)	İstanbul's Share in Türkiye's Manufacturing GDP (%)	
2016	115284	16,45	14,21	30,9	25,92	26,45	
2017	138540	16,35	14,23	31,08	24,61	25,13	
2018	172063	17,02	14,86	30,8	23,53	24,04	
2019	197808	17,16	14,94	30,71	24,11	25,08	
2020	236046	17,82	15,54	30,09	23,55	24,44	
2021	363812	18,79	16,52	30,38	21,91	22,6	

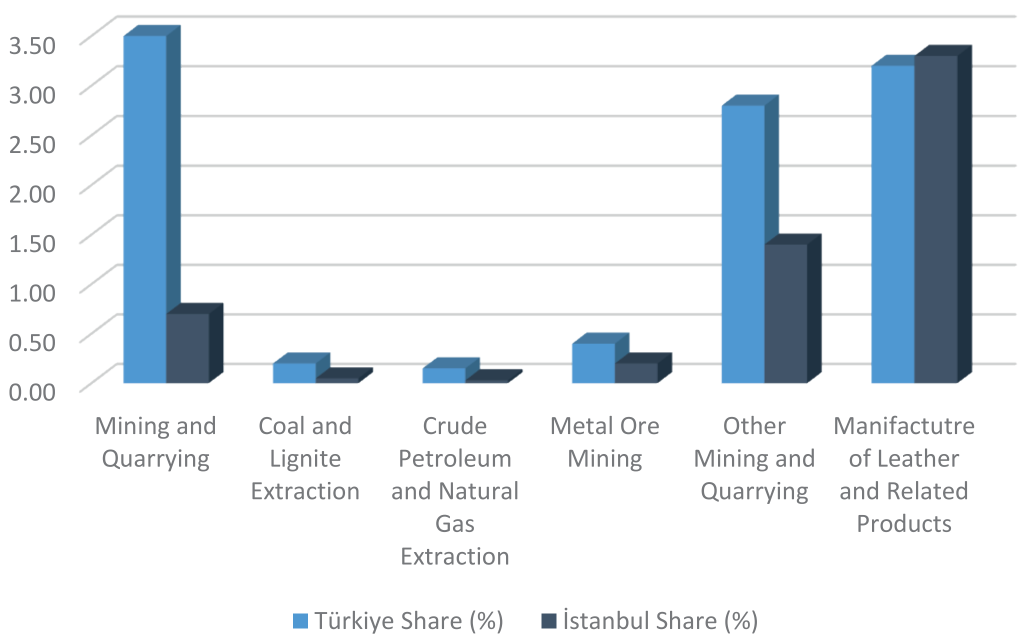
The table shows the development of İstanbul's GDP and industrial sector between 2016 and 2021. In parallel with Türkiye's overall economic growth, İstanbul's GDP has also shown a significant increase. From TRY 811.5 billion in 2016, İstanbul's GDP reached TRY 2.2 trillion in 2021, growing by 171.36 percent. In the same period, Türkiye's overall GDP increased from TRY 2.6 trillion to TRY 7.2 trillion, while İstanbul's share in the national economy remained stable at around 30%.

İstanbul's performance in the industrial sector is also noteworthy. In 2016, the industrial GDP was 133.4 billion TRY, and by 2021 it will reach 413.7 billion TRY, an increase of 210.03 percent. The growth in the manufacturing sector is even more pronounced, with manufacturing GDP increasing by 215.58 percent from 115.2 billion TRY in 2016 to 363.8 billion TRY in 2021. This data reveals that İstanbul has shown significant growth in the industrial and manufacturing sectors.

When the share of the industrial sector in Türkiye is analyzed, it is observed that İstanbul's share in total industrial production was 25.92 percent in 2016 and decreased to 21.91 percent in 2021. Similarly, İstanbul's share in total manufacturing industry declined from 26.45 percent in 2016 to 22.60 percent in 2021. This indicates that industrial production in Türkiye has started to spread to regions other than İstanbul and that industrial centers in Anatolia are growing. Although İstanbul's industrial production continues to grow in absolute terms, its share in Türkiye's overall industrial output has been gradually declining.

İstanbul remains Türkiye's largest economic center, both in terms of GDP size and industrial and manufacturing sectors. However, the more balanced regional distribution of industrial production across Türkiye is reducing İstanbul's share in the industrial and manufacturing sectors. This trend indicates that İstanbul is in the process of transforming into a more trade, finance, services and technology-oriented economy.

Graphic 3. Share of Mining and Quarrying Sector in İstanbul and Türkiye



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ممول من الاتحاد الأوروبي

Table 5. Sectoral Breakdown of Industrial Enterprises in İstanbul (2021)

Sector (NACE Rev 2)	Türkiye / Number of Enterprises	Türkiye / Share (%)	İstanbul / Number of Enterprises	İstanbul / Share (%)	Sectoral Share in Türkiye (%)
Mining and quarrying	**5,055**	**3,39**	**216**	**0,65**	**4,27**
Coal and lignite extraction	228	0,15	9	0,03	3,95
Crude oil and natural gas extraction	123	0,08	5	0,01	4,07
Metal ores mining	593	0,4	46	0,14	7,76
Other mining and quarrying	4,111	2,76	156	0,47	3,79
Manufacturing	**139,507**	**93,66**	**33,212**	**99,27**	**23,81**
Manufacture of food products	21,481	14,42	2,046	6,12	9,52
Manufacture of beverages	550	0,37	75	0,22	13,64
Manufacture of tobacco products	95	0,06	11	0,03	11,58
Manufacture of textile products	11,752	7,89	3,491	10,43	29,71
Manufacture of clothing	9,477	6,36	5,299	15,84	55,91
Manufacture of leather and related products	2,974	2	1,017	3,04	34,2
Manufacture of wood, and Cork Products (Except Furniture)	6,284	4,22	352	1,05	5,6
Manufacture of paper and paper products	2,495	1,68	923	2,76	36,99
Printing and reproduction of recorded media	2,182	1,46	788	2,36	36,11
Manufacture of coke and refined petroleum products	239	0,16	33	0,1	13,81
Manufacture of chemicals and chemical products	4,698	3,15	1,293	3,86	27,52
Manufacture of basic pharmaceutical products and pharmaceutical materials.	264	0,18	95	0,28	35,98
Manufacture of rubber and plastic products	10,485	7,74	3,069	9,17	29,27
Manufacture of other non-metallic mineral products	8,024	5,39	713	2,13	8,89
Basic metal industry	4,141	2,78	978	2,91	23,55
Manufacture of fabricated metal products	15,883	10,66	6,144	18,39	26,09
Manufacture of computers, electronic and optical products	1,449	0,97	561	1,68	37,27
Electrical equipment manufacturing	4,238	2,85	1,542	4,61	36,39
Manufacture of machinery and equipment not elsewhere classified	14,366	9,65	3,607	10,78	25,11
Manufacture of motor vehicles, trailers and semi-trailers	1,465	0,98	383	1,14	15,54
Manufacture of other means of transportation	767	0,51	219	0,65	28,55
Furniture manufacturing	12,171	8,19	932	2,79	9,79
Other manufacturing	3,027	2,03	1,405	4,2	46,42
Electricity, gas, steam and air conditioning production and distribution	**4,381**	**2,94**	**27**	**0,08**	**0,62**

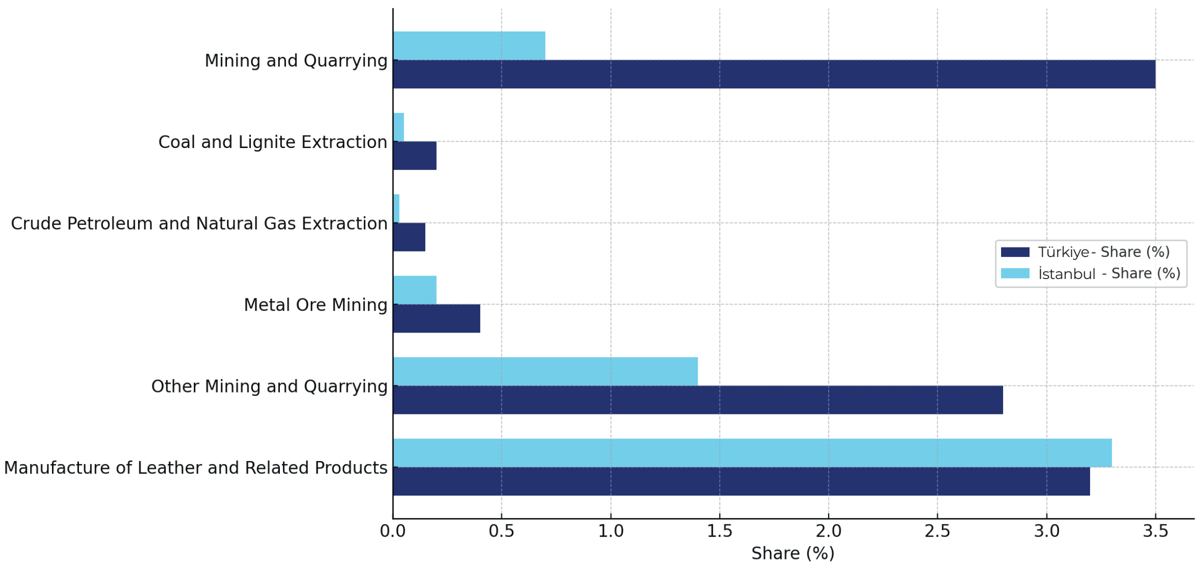
Source:TURKSTAT 2021 Report

REPUBLIC OF TÜRKİYE MINISTRY OF LABOUR AND SOCIAL SECURITY

The table compares the sectoral distribution of industrial enterprises in İstanbul with that of Türkiye as a whole as of 2021. There are 33,455 industrial enterprises in İstanbul, accounting for 22.46% of total industrial enterprises in Türkiye. The city is one of the largest industrial centers in Türkiye, especially in the manufacturing sector.

99.27% of industrial enterprises (33,212 enterprises) are in the manufacturing sector, and İstanbul's share in manufacturing enterprises in Türkiye is 23.81%. One of the strongest areas is apparel manufacturing, with 5,299 enterprises, accounting for 55.91% of the sector in Türkiye. Textile products manufacturing, with 3,491 enterprises, accounts for 29.71% of the sector in Türkiye. Chemical products manufacturing is one of the most important sectors in İstanbul, accounting for 27.52% of the sector in Türkiye with 1,293 enterprises. Electrical equipment manufacturing with 1,542 enterprises has a share of 36.39%. Metal industry and machinery manufacturing are also prominent, with 6,144 fabricated metal product manufacturing enterprises (26.09%) and 3,607 machinery manufacturing enterprises (25.11%) in İstanbul.

Graphic 4. Manufacturing Sector Share in Türkiye and İstanbul



1.1.3. Service and Tourism Sector

İstanbul's service and tourism sector constitutes one of the most important areas of the city in terms of economic growth, employment and foreign trade. As of 2019, 72.9% of İstanbul's total Gross Value Added (GVA) was generated by the services sector (İstanbul Regional Plan, 2024-2028). This represents an increase of 2.5 percentage points compared to 2013. İstanbul is on its way to becoming a global service center with highly competitive and growth potential service sectors such as trade, finance, health, tourism and logistics.

In Türkiye, 55.3% of the workforce was employed in the services sector, whereas this figure reached 67.7% in İstanbul (İstanbul Regional Plan, 2024-2028). This indicates that İstanbul has a much higher weight in the services sector than the Türkiye average. The finance and insurance sector, information and communication services, and professional, administrative and support services have an important place in İstanbul's economy. For example, 60.6% of the financial and insurance services produced in Türkiye are realized in İstanbul. Similarly, 65.6% of the information and communication sector's production in Türkiye originates from İstanbul (İstanbul Regional Plan, 2024-2028).

The tourism sector contributes significantly to İstanbul's foreign exchange inflow and has entered a recovery period after the pandemic. İstanbul hosts the highest number of foreign tourists in Türkiye, with the accommodation and food services sector accounting for 37.8% of the country's total. It is also one of Europe's major destinations for congress, health and cultural tourism (İstanbul Regional Plan, 2024-2028).

1.1.4. Trade, Energy and Logistics

İstanbul's trade, energy and logistics sectors are key elements of the city's economic structure. Accounting for 37.8% of Türkiye's total trade volume by 2021, İstanbul is a key hub for domestic and foreign trade. 24% of Türkiye's enterprises are registered in İstanbul, with more than 640,000 firms registered with ITO (TURKSTAT, 2021).

In energy consumption, total electricity consumption per capita in 2021 was 2,621 kWh in İstanbul and 3,386 kWh in Türkiye. İstanbul's installed power generation capacity reached 3,794.6 MWe in 2023, of which 64.2% is sourced from natural gas and 26.8% from wind energy. Although the use of renewable energy is limited, solar and wind energy investments are increasing (İstanbul Regional Plan, 2024-2028).

İstanbul has the most advanced logistics infrastructure in Türkiye, with well-established land, air, sea, and rail connections. It also serves as the country's largest transshipment hub for both exports and imports. The manufacturing industry has the largest share in trade, accounting for 98% of total exports and 90.1% of imports.

1.2. The Impact of Technological and Sectoral Developments on the Labor Market

Technological and sectoral developments in İstanbul are transforming the labor market. As digitalization and automation accelerated after the pandemic, investments in technology and knowledge-intensive sectors increased. Incentives and start-up investments in the manufacturing sector support this transformation.

The spread of flexible working models has created new business models with digital platforms and brought the concept of assured flexibility to the forefront. The importance of vocational training has increased due to changing labor force needs. While the industrial sector in İstanbul is growing below Türkiye's average, the technology-based service sector is developing rapidly.

One of the biggest challenges in the labor market in İstanbul is the shortage of qualified labor. In particular, the lack of employees with digital skills makes it difficult for employers to find suitable employees. One of the most challenging areas for employers in İstanbul is software development, technical maintenance-repair and engineering positions. In the labor market, it is observed that the workforce that adapts to digitalization stands out and employment rates in traditional occupations are decreasing. The labor market in İstanbul is undergoing a significant transformation process due to technological and sectoral developments. While digitalization and automation cause some professions to disappear, it also brings about the emergence of new job fields.

1.3. Employers' Perceptions and Preferences towards Migrant Workers

Employers' perceptions and preferences towards migrant workers in İstanbul are directly related to the city's labor market dynamics. Migrant workers are particularly concentrated in the construction, textile, plastics and service sectors. They are mostly concentrated in districts such as Esenyurt, Fatih, Başakşehir, Zeytinburnu and Küçükçekmece on the European side.

Migrant workers in İstanbul are particularly employed in low-skilled jobs. It is reported that migrant workers are heavily employed in the industrial, construction, textile and service sectors in İstanbul. The main reason for this is that employers have difficulty in finding qualified local workers in these sectors. In this context, the employment of migrant workers plays a complementary role to the shortage in labor supply (Republic of Türkiye Ministry of Industry and Technology, 2022).

The way employers perceive migrant workers is strongly influenced by the needs and dynamics of the labor market. Research shows that one of the main reasons why employers prefer migrant workers is the expectation of low wages. Employers also think that migrant workers are more prone to flexible working hours and demand fewer rights in the labor market. Especially small and medium-sized enterprises are more willing to employ migrant workers in labor-intensive sectors. Employers' attitudes towards migrant workers vary across sectors. It is observed that employers prefer local labor in occupations requiring higher skills, while migrant workers are more likely to be employed in unskilled or low-skill occupations.

However, informal employment of migrant workers stands out as a major problem. One of the biggest obstacles for employers in the process of hiring migrant workers is the legal regulations regarding work permits. In order to work legally in Türkiye, foreign workers must obtain a work permit from the Ministry of Labor and Social Security. However, the process can be time-consuming and may incur additional costs for employers. Employers may prefer to employ migrant workers informally due to the complexity and length of the work permit process.

According to the legal regulations in Türkiye, an employer is allowed to employ migrant workers up to 10% of its total employees. However, it is reported that many small and medium-sized enterprises in İstanbul exceed these limits and employ unregistered migrant workers (İstanbul Regional Plan, 2024-2028). Moreover, insufficient professional qualifications and cultural adaptation issues become prominent. Since the integration of migrant workers into the İstanbul labor market requires employers to comply with certain regulations and procedures, this process can be complex and costly for most employers.

Various training programs are implemented by ISO, ISKUR and international organizations to increase the professional competencies of migrant workers.

- In the ISO Vocational Training Cooperation Project (ISO MEIP) qualified workers including migrants are trained for industrial sector (İstanbul Chamber of Industry, 2023).
- ICMPD projects offer on-the-job training programs in the textile, food, construction and service sectors (İstanbul Regional Plan, 2024-2028).
- ISKUR offers vocational training courses and on-the-job training programs (ISKUR, 2023).

These programs improve the professional skills of migrant workers and meet employers' need for skilled labor. However, language barriers and legal procedures make it difficult for migrant workers to access these trainings.

1.4. Sectoral Employment Trends: Demand for Skilled, Unskilled, Youth, Female, and Seasonal Labor

The sectors that provide the highest employment in İstanbul are service, industry and agriculture, respectively. Finance and insurance, information and communication technologies, retail trade and accommodation services are the prominent areas of the service sector in İstanbul, and a significant portion of those employed in these sectors in Türkiye are employed in İstanbul. The industrial sector, on the other hand, constitutes the second largest area of employment in İstanbul and is particularly concentrated in sub-sectors such as apparel, metal products, food industry, textiles and machinery production (Ministry of Industry and Technology, 2019). İstanbul's positioning as a global financial, trade and industrial hub remains one of the most important factors determining these sectoral differences in labor force distribution (İstanbul Regional Plan, 2024-2028).

The demand for skilled labor in İstanbul is growing with the increase in digitalization, automation and high-tech-based production processes in the industrial and service sectors. Software development, engineering, data analytics, data analytics, automation systems and technical maintenance-repair occupations stand out among the areas of qualified labor force that employers in İstanbul need the most (TURKSTAT, 2021). Especially in the industrial sector, with the transformation of the manufacturing industry, the need for technical personnel with a good command of robotics, artificial intelligence and advanced production technologies is increasing. In the service sector, the demand for employees who speak foreign languages and can adapt to technology is increasing in the fields of information and communication technologies, financial services and international trade (Ministry of Industry and Technology, 2019). Employers operating in İstanbul state that they have difficulty in closing the labor shortage due to the lack of a workforce with digital skills. Developing vocational training programs and increasing university-industry cooperation play a critical role in meeting İstanbul's need for a qualified workforce (İstanbul Regional Plan, 2024-2028).

Demand for unskilled labor in İstanbul remains high, especially in labor-intensive sectors. Employers in İstanbul report an increasing need for low-skilled labor in sectors such as construction, textiles, retail, logistics and food production (TURKSTAT, 2021). Workers in these sectors are generally expected to have basic physical skills, resilience and adaptability to flexible working hours. In the textile and apparel sector, demand for unskilled labor is high for tasks such as sewing, packaging and quality control, while in logistics and warehouse services, the need for unskilled workers for jobs such as load handling and order preparation is increasing (Ministry of Industry and Technology, 2019). In addition, the demand for unskilled labor in the service sector in cleaning, security and FMCG retailing is also significantly high. Migrant workers are observed to fill the unskilled labor shortage in İstanbul to a significant extent, but there are imbalances in the labor market due to problems such as informal employment and low wages (İstanbul Regional Plan, 2024-2028).

> **In İstanbul, the digitalised industrial and service sectors are experiencing a profound transformation in the labor market with an increasing demand for qualified labor, while labor-intensive areas are experiencing an increasing demand for unqualified labor.**

The demand for young labor in İstanbul is becoming increasingly important with the increase in technological transformation, digitalization and innovative business models in the industrial and service sectors. In particular, sectors such as information and communication technologies, call center services, retail, e-commerce and logistics are among the areas with the highest demand for young workforce (Ministry of Industry and Technology, 2019). In addition, the fact that young people have digital skills and can adapt to innovative business models facilitates their employment, especially in positions such as software development, social media management and data analytics. However, it is observed that young people face various difficulties in entering the labor market due to the lack of sufficient professional experience of the young workforce in İstanbul and the high experience expectations of employers (İstanbul Regional Plan, 2024-2028).

Seasonal labor demand in İstanbul increases significantly in sectors such as tourism, agriculture, retail, logistics and event organization. Especially in the summer season, the need for employees in the tourism and accommodation sectors increases, with hotels, restaurants, cafes and entertainment centers turning more to temporary labor (TURKSTAT, 2021). In addition, in the retail sector, there is a need for seasonal workers in positions such as cashiers, warehouse clerks and sales consultants, especially during the New Year, holiday and discount periods (Ministry of Industry and Technology, 2019). Due to İstanbul's position as a logistics hub, e-commerce activities that increase during certain periods of the year also increase the demand for seasonal labor, especially in the fields of cargo, distribution and logistics support. In the agricultural sector, temporary workers are needed during harvest periods in agricultural enterprises operating in rural areas around İstanbul. Most of the seasonal labor demand is for unskilled labor, and employers generally prefer workers who can adapt to flexible working hours. However, the limited duration of employment of seasonal workers and the lack of job security is seen as one of the main challenges for those in such jobs (İstanbul Regional Plan, 2024-2028).

1.5. Women Participation to Labor Force and Career Development: A Cross-Gender Comparison

In İstanbul, women's educational attainment and professional qualifications are among the most important factors determining their access to opportunities in the labor market. However, the sectors where women are employed are generally limited to areas such as services and retail, and they are underrepresented in occupations requiring higher education compared to men. In İstanbul, 42.8% of female job seekers are higher education graduates, 28.7% are high school graduates and 28.4% have less than high school education. As women's educational attainment increases, their access to professional opportunities also increases and they are more likely to be employed in the education, health and finance sectors.

Women are particularly concentrated in the education, health, finance and retail sectors, but are underrepresented in sectors requiring technical skills such as industry and technology. Employers' prejudices about the long-term retention of female employees in the workforce create disadvantages for women in recruitment processes and limit their promotion to managerial positions (İstanbul Labor Market Report, 2023).

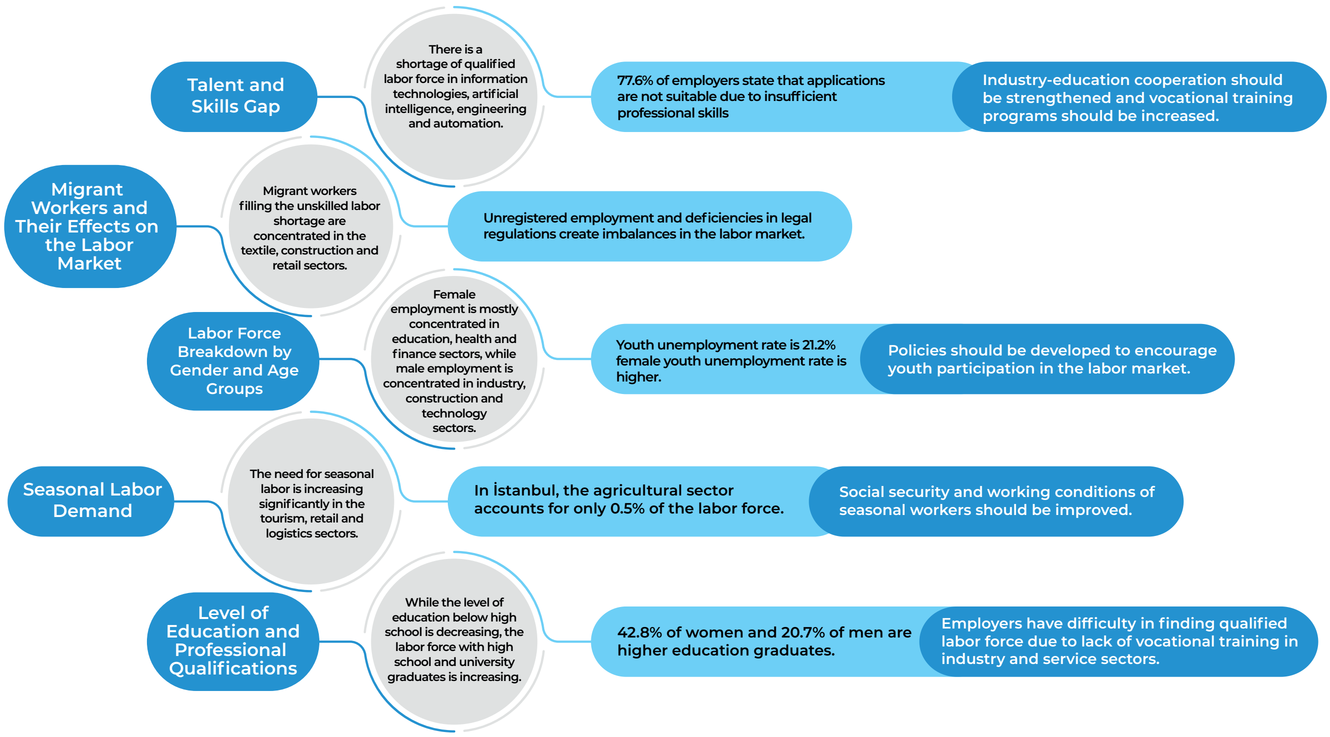
The career development of women in İstanbul is shaped by their educational attainment, professional qualifications and the opportunities and obstacles they face in the labor market. Women employees are mostly employed in the education, health and finance sectors, but they face more difficulties than men in the process of promotion to managerial positions. To support women's career advancement, it is necessary to promote flexible working models that facilitate work-life balance, increase financial support for women's entrepreneurship and encourage female representation in managerial positions.

In İstanbul, significant gender differences are observed in terms of labor force participation, employment rates and sectoral distribution. While men are mostly employed in industry, construction and technology sectors, women are concentrated in education, health and finance sectors. Women are less likely than men to be promoted to senior management positions. The glass ceiling syndrome and challenges related to work-life balance remain among the most significant barriers they face in the labor market. In order to increase women's participation in the labor force and eliminate gender inequalities, it is crucial to expand vocational training programs, support flexible working models and increase incentives for women entrepreneurship.

1.6. Prominent Findings in Literature Review

The main findings of the literature review on the labor market in İstanbul are summarized in Figure-2.

Figure 2. Findings from the Literature Review on İstanbul



In this section, studies in the literature are evaluated in order to draw a general framework of the labor market in İstanbul. In order to support the findings in the literature with data from the field, the next section analyzes the secondary data collected in İstanbul.

> **İstanbul's labor market is shaped by the increasing demand for skilled labor in the industrial and service sectors due to digital transformation and for unskilled labor in labor-intensive areas; the findings of the literature reveal the traces of this structural transformation.**

CHAPTER II

CHAPTER II

2. ANALYSIS OF SECONDARY DATA AND FINDINGS

In this section, the demographic structure, labor market, employment dynamics, employment dynamics, social security situation and migration movements of İstanbul are analyzed in detail based on data from TURKSTAT, ISKUR, SSI, Ministry of Labor and Social Security and Presidency of Migration Management.

2.1. Population and Demographic Statistics

2.1.1. TURKSTAT Population Registration System Statistics

The populations of settlements are calculated based on data from the Address-Based Population Registration System, updated by the Ministry of Interior's General Directorate of Population and Citizenship Affairs, along with the population residing in institutional facilities. Individuals staying in institutional places such as barracks, prisons, retirement homes, university student dormitories are included in the population of the settlement where the institutional places are located, not in the population of the settlement where their residence address is located, as per the international definition. In addition, populations by provinces, districts, municipalities, villages and neighborhoods are based on the National Address Database records dated 31 December 2023. Within the scope of the foreign national population; individuals with a valid residence or work permit on the reference date, individuals with an international protection identity document and an address declaration, and blue card holders were evaluated. Foreigners with a visa or residence permit for less than 90 days for reasons such as courses, tourism, scientific research, etc. and Syrians under Temporary Protection (SuTP) are not included in the population.

Table 6. TURKSTAT, Address Based Population Registration System Results, 2023

Population	Years	Türkiye	İstanbul
Total Population	2022	85,279,553	15,907,951
	2023	85,372,377	15,655,924
Provincial and District Centers	2022	79,613,279	15,907,951
	2023	79,399,292	15,655,924
Annual Population Growth Rate	2021-2022	7,1	4,2
	2022-2023	1,1	-16

While the population in Türkiye was 85,279,553 in 2022, it increased to 85,372,377 in 2023. However, a remarkable situation is observed in İstanbul. The population of İstanbul, which was 15,907,951 in 2022, decreased to 15,655,924 in 2023. This indicates a reversal of İstanbul's long-standing population growth trend (Table 6). In terms of the population living in provincial and district centers, it is observed that the entire population of İstanbul is concentrated in urban centers. However, an analysis of the city's annual population growth rate reveals a negative growth rate of -1.6% in the period 2022-2023. This indicates that İstanbul has become an emigrant city and is experiencing population loss.

Table 7. Provincial/District Center, Town/Village Population and Population Density by Province and Gender, 2023

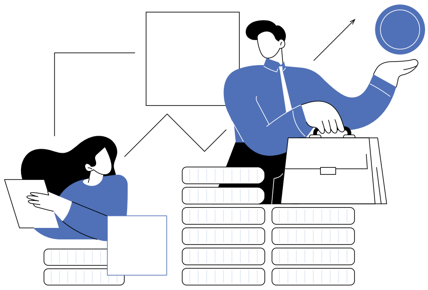
Population	Gender	Türkiye	İstanbul
Total Population	**Total**	85,372,377	15,655,924
	Male	42,734,071	7,806,787
	Female	42,638,306	7,849,137
Provincial and District Centers	**Total**	79,399,292	15,655,924
	Male	39,664,342	7,806,787
	Female	39,734,950	7,849,137
Population Density	**Total**	111	3,013

In İstanbul, the total population is 15,655,924, with a male population of 7,806,787 and a female population of 7,849,137. The gender distribution in İstanbul is in line with the balanced distribution in Türkiye. In terms of urbanization, it is seen that the entire population of İstanbul lives in provincial and district centers (Table 7). This situation reveals that rural areas are almost non-existent and the entire city has an urban structure. In Türkiye as a whole, although the urbanization rate is not as high as in İstanbul, the share of the population living in provincial and district centers in the total is quite large. In terms of population density, the number of people per square kilometer in İstanbul is calculated as 3,013.

This value is much higher than Türkiye's average of 111 and reveals that İstanbul is one of the densest cities in the country.

Table 8. Median Age by Province and Gender, 2023

Year	Gender	Total	İstanbul
2022	**Total**	**33,5**	**33,7**
	Male	**32,8**	33,1
	Female	**34,2**	34,3
2023	**Total**	**34,0**	**34,0**
	Male	**33,2**	33,4
	Female	**34,7**	34,7



The median age in İstanbul is calculated as 34 in 2023, which is the same as the average for Türkiye. Analyzed by gender, the median age of women in İstanbul is 34.7, while that of men is 33.4 (Table 8). A similar trend is observed across Türkiye, where the median age of women is higher than that of men. The change in the median age in İstanbul shows that the demographic transformation in the population structure of the province continues and the aging trend continues.

Table 9. Population by Province, Marital Status and Gender, 2023

Marital Status	Gender	Total	İstanbul
Total	**Total**	**67,060,744**	**12,524,750**
	Male	**33,339,609**	**6,199,065**
	Female	**33,721,135**	**6,325,685**
Never Married	**Total**	**19,231,798**	**4,002,364**
	Male	**10,911,913**	2,229,806
	Female	**8,319,885**	1,772,558
Married	**Total**	**40,876,455**	**7,263,025**
	Male	**20,460,478**	3,606,228
	Female	**20,415,977**	3,656,797
Divorced	**Total**	**3,205,212**	**705,408**
	Male	**1,415,476**	290,784
	Female	**1,789,736**	414,624
Widower	**Total**	**3,747,279**	**553,953**
	Male	**551,742**	72,247
	Female	**3,195,537**	481,706

As of 2023, a total of 12,524,750 people live in İstanbul, of which 4,002,364 have never married, 7,263,025 are married, 705,408 are divorced and 553,953 have lost their spouses. In terms of gender, the number of never-married men (2,229,806) is higher than that of women

(1,772,558). Among divorced individuals, the number of women (414,624) is higher than men (290,784). In terms of deceased individuals, the number of women (481,706) is significantly higher than men (72,247) (Table 9).

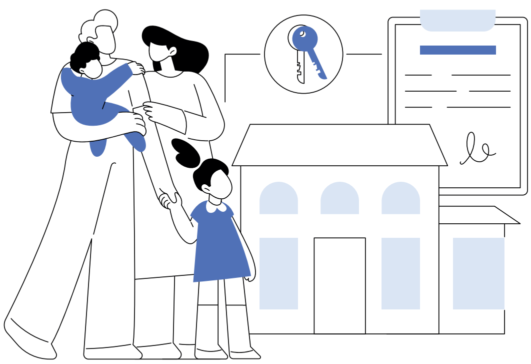
Table 10. Foreign Population

Year	Gender	Total	İstanbul
2022	**Total**	**1,823,836**	**736,280**
	Male	**902,124**	364,816
	Female	**921,712**	371,464
2023	**Total**	**1,570,543**	**599,118**
	Male	**762,672**	285,203
	Female	**807,871**	313,915

In İstanbul, the foreign population declined from 736,280 in 2022 to 599,118 in 2023. A similar trend is observed across Türkiye, with the total foreign population decreasing from 1,823,836 to 1,570,543. Analyzing the gender distribution, the male foreign population in İstanbul was recorded as 285,203 and the female foreign population as 313,915 in 2023. In Türkiye as a whole, the female foreign population is higher than the male population (Table 10).

Table 11. Average Household Size, 2008-2023

Year	Türkiye	İstanbul
2008	**4,0**	3,8
2009	**4,0**	3,8
2010	**3,8**	3,7
2011	**3,8**	3,6
2012	**3,7**	3,6
2013	**3,6**	3,5
2014	**3,6**	3,5
2015	**3,5**	3,5
2016	**3,5**	3,5
2017	**3,4**	3,4
2018	**3,4**	3,4
2019	**3,4**	3,3
2020	**3,3**	3,3
2021	**3,2**	3,2
2022	**3,2**	3,2
2023	**3,1**	3,2



As in Türkiye in general, household size in İstanbul also shows a downward trend. In 2008, while the average household size in Türkiye was recorded as 4 people, this value was determined as 3.8 in İstanbul. The decline continued over time and by 2023, while the average household size in Türkiye dropped to 3.1, it remained at 3.2 in İstanbul. This can be attributed to the decline in fertility rates, the urbanization process and the spread of individualized lifestyles (Table 11).

Table 12. Age Dependency Ratio, 2007-2023

Age	Total	İstanbul
Total	85,372,377	15,655,924
0-14	18,311,633	3,131,174
15-64	58,337,938	11,285,851
65 +	8,722,806	1,238,899
Total Age Dependency Ratio (%)	46,3	38,7
Child Dependency Ratio (%)	31,4	27,7
Elderly Dependency Ratio (%)	15,0	11,0

The total age dependency ratio in İstanbul is calculated as 38.7%. This rate is lower than the Turkish average of 46.3% and indicates that İstanbul has a higher proportion of working age population compared to the country as a whole. When the child dependency ratio is analyzed, it is recorded as 27.7% in İstanbul, which is lower than the average for Türkiye (31.4%). The elderly dependency ratio is 11%, which is below Türkiye's average of 15%. This indicates that İstanbul has a relatively young population structure and a higher proportion of the working age population compared to Türkiye as a whole (Table 12).

Table 13. Annual Population Growth Rate and Population Density by Years, 2007-2023

Population	Year	Türkiye	İstanbul
Annual Population Growth Rate (%)	2007-2008	**13,1**	9,8
	2008-2009	**14,5**	17,0
	2009-2010	**15,9**	26,0
	2010-2011	**13,5**	27,4
	2011-2012	**12,0**	16,8
	2012-2013	**13,7**	21,8
	2013-2014	**13,3**	15,2
	2014-2015	**13,4**	19,3
	2015-2016	**13,5**	10,0
	2016-2017	**12,4**	15,1
	2017-2018	**14,7**	2,6
	2018-2019	**13,9**	29,5
	2019-2020	**5,5**	-3,7
	2020-2021	**12,7**	24,2
	2021-2022	**7,1**	4,2
	2022-2023	**1,1**	-16,0
Population Density(R)	2007	**92**	2,349
	2008	**93**	2,372
	2009	**94**	2,413
	2010	**96**	2,477
	2011	**97**	2,546
	2012	**98**	2,589
	2013	**100**	2,646
	2014	**101**	2,686
	2015	**102**	2,739
	2016	**104**	2,766
	2017	**105**	2,808
	2018	**107**	2,815
	2019	**108**	2,900
	2020	**109**	2,889
	2021	**110**	2,960
	2022	**111**	2,972
	2023	**111**	2,925

The change in the annual population growth rate and population density in İstanbul and Türkiye between 2007 and 2023 (Table 13) reveals that İstanbul's population growth rate fluctuates over the years, but shows a significant decline in the period 2022-2023. In the period 2022-2023, İstanbul's population growth rate is calculated as 16%, which is a sharp decline compared to previous years. In Türkiye as a whole, this rate remained at 1.1%.

In terms of population density, İstanbul has a much higher population density compared to Türkiye's average. As of 2023, while Türkiye's population density is 111 people/km², this value is calculated as 2,925 people/km² in İstanbul. This indicates that İstanbul continues to be the most densely populated city in Türkiye and that population pressure continues in urban areas.

2.2. Labor Force and Employment Statistics

2.2.1. TURKSTAT Labor Market Indicators: Unemployment, Employment, and Participation Rates

Table 14. Unemployment Rate at Provincial Level

Yıear	Confidence Interval	Threshold Values	Türkiye	İstanbul
2022	**Ratio**		10,4	10,2
	95% Confidence Interval	**Lower Limit**	10,2	9,6
		Upper Limit	10,6	10,7
2023	**Ratio**		9,4	8,9
	95% Confidence Interval	**Lower Limit**	9,2	8,4
		Upper Limit	9,6	9,4

In 2022, the unemployment rate in İstanbul was recorded as 10.2%, slightly below the Turkish average of 10.4%. By 2023, the unemployment rate in İstanbul declined to 8.9%, in line with the downward trend in Türkiye. 95% confidence intervals indicate that the unemployment rate in İstanbul ranged between 9.6% and 10.7% in 2022 and between 8.4% and 9.4% in 2023 (Table 14).

Table 15. Employment Rate at Provincial Level

Year	Confidence Interval	Threshold Values	Türkiye	İstanbul
2022	Ratio		47,5	50,4
	95% Confidence Interval	Lower Limit	47,3	49,7
		Upper Limit	47,8	51,1
2023	Ratio		48,3	51,9
	95% Confidence Interval	Lower Limit	48,0	51,2
		Upper Limit	48,6	52,6

In 2022, while the employment rate in Türkiye was 47.5%, this rate in İstanbul was 50.4%, above the average of Türkiye. By 2023, the employment rate in Türkiye rises to 48.3%, while in İstanbul it rises to 51.9%95% confidence intervals show that the employment rate in İstanbul ranges between 49.7% and 51.1% in 2022 and between 51.2% and 52.6% in 2023. İstanbul's service sector-dominated economic structure contributes to relatively high employment rates (Table 15).

Table 16. Labor Force Participation Rate at Provincial Level

Year	Confidence Interval	Threshold Values	Türkiye	İstanbul
2022	Ratio		53,1	56,1
	95% Confidence Interval	Lower Limit	52,8	55,4
		Upper Limit	53,3	56,8
2023	Ratio		53,3	57,0
	95% Confidence Interval	Lower Limit	53,1	56,2
		Upper Limit	53,5	57,7

The labor force participation rate in İstanbul was higher than the Türkiye average in both years. In 2022, while the labor force participation rate was 53.1% in Türkiye, it was 56.1% in İstanbul. By 2023, the labor force participation rate increased to 53.3% in Türkiye and 57% in İstanbul95% confidence intervals indicate that the labor force participation rate in İstanbul ranged between 55.4% and 56.8% in 2022 and between 56.2% and 57.7% in 2023. İstanbul is one of the cities with the largest labor pool in Türkiye and has a high labor force participation rate due to migration and economic opportunities. This trend shows that İstanbul's economic mobility continues and its capacity to create employment is sustained (Table 16).

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2.2.2. ISKUR Labor Market Statistics (Open Vacancy Announcement, Unemployment Statistics, Labor Force Surveys)

Table 17. Open Vacancy Announcement and Job Placements

Job Status	Open Vacancy Announcement	Gender	İstanbul	Türkiye
Open Vacancy Announcement	**Public**		696	30,190
	Private		649,330	2,646,816
	Total		650,026	2,677,006
Job Placement	**Public**	**Male**	209	11,581
		Female	40	4,935
		Total	249	16,516
	Private	**Male**	148,152	761,307
		Female	107,535	459,203
		Total	255,687	1,220,510
	Total	**Male**	148,361	772,888
		Female	107,575	464,138
		Total	255,936	1,237,026

There are a total of 650,026 vacancies in İstanbul, the majority of which are in the private sector. While there are 649,330 vacancies in the private sector, this number is very limited with only 696 in the public sector. When job placement data is analyzed, a total of 255,936 people were employed in İstanbul, of which 255,687 were employed in the private sector and 249 in the public sector. On the basis of gender, it is observed that the employment rate of men is higher than that of women. While the number of men employed in the private sector is 148,152, the number of women is 107,535 (Table 17).

Table 18. Placements by Age Groups and Provinces

Age	Gender	İstanbul	Total
15 - 24	**Male**	57,237	**268,499**
	Female	56,425	**189,225**
	Total	113,662	**457,724**
25 - 29	**Male**	27,811	**149,511**
	Female	19,071	**81,088**
	Total	46,882	**230,599**
30 - 34	**Male**	16,661	**93,457**
	Female	9,482	**49,210**
	Total	26,143	**142,667**
35 - 39	**Male**	13,224	**74,114**
	Female	7,634	**47,472**
	Total	20,858	**121,586**
40 - 44	**Male**	12,923	**69,395**
	Female	7,175	**45,752**
	Total	20,098	**115,147**
45 - 49	**Male**	10,150	**59,465**
	Female	4,745	**30,307**
	Total	14,895	**89,772**
50 - 54	**Male**	6,453	**36,786**
	Female	2,135	**14,149**
	Total	8,588	**50,935**
55 - 59	**Male**	2,632	**14,998**
	Female	656	**5,047**
	Total	3,288	**20,045**
60 - 64	**Male**	917	**5,174**
	Female	202	**1,435**
	Total	1,119	**6,609**
65+	**Male**	353	**1,489**
	Female	50	**453**
	Total	403	**1,942**
Total	**Male**	148,361	**772,888**
	Female	107,575	**464,138**
	Total	255,936	**1,237,026**

According to ISKUR data, a total of 255,936 people were placed in jobs in İstanbul, of which 148,361 were male and 107,575 were female. When analyzed by age groups, the highest

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number of job placements was realized in the 15-24 age group and a total of 113,662 people were employed in this age group. There is a gradual decrease in job placement rates with increasing age. In the 25-29 age group, 46,882 people and in the 30-34 age group, 26,143 people were employed. It is noteworthy that individuals aged 50 and over have very low job placement rates. On the basis of gender, it is observed that women are employed at a lower rate than men in every age group. This difference becomes more apparent especially for women aged 45 and above (Table 18).

Table 19. Distribution of Job Placements by Educational Background and Province

Education Status	Gender	İstanbul	Türkiye
Illiterate	**Male**	51	**667**
	Female	23	**174**
	Total	74	**841**
Literate (no formal education completed)	**Male**	1,214	**12,387**
	Female	1,089	**6,002**
	Total	2,303	**18,389**
Primary Education	**Male**	52,293	**307,813**
	Female	25,679	**147,342**
	Total	77,972	**455,155**
Secondary Education	**Male**	65,116	**326,857**
	Female	45,986	**183,932**
	Total	111,102	**510,789**
Associate Degree	**Male**	13,371	**62,086**
	Female	17,475	**65,746**
	Total	30,846	**127,832**
Bachelor's Degree	**Male**	15,723	**60,938**
	Female	16,689	**58,836**
	Total	32,412	**119,774**
Master's Degree	**Male**	556	**2,046**
	Female	583	**2,016**
	Total	1,139	**4,062**
PhD	**Male**	37	**94**
	Female	51	**90**
	Total	88	**184**
Total	**Male**	148,361	**772,888**
	Female	107,575	**464,138**
	Total	255,936	**1,237,026**

In İstanbul, ISKUR job placements are mostly concentrated in primary and secondary education graduates. While primary education graduates constitute the largest group of employed people with 77,972 people, secondary education graduates are in second place with 111,102 people. This indicates that individuals with low and middle education levels find a place in the labor market. The employment of associate's and bachelor's degree graduates remained at a relatively lower level, while master's and doctorate graduates were placed in a very limited number of jobs. In İstanbul, only 1,139 master's degree graduates and only 88 PhD graduates were employed (Table 19).

Table 20. Distribution of Unemployed Registered with ISKUR by Occupational Groups

Occupational Groups	İstanbul	Türkiye
Office Services Employees	49,227	**249,265**
Service and Sales Workers	64,116	**431,768**
Non-Skilled Occupations	77,114	**957,763**
Skilled Agricultural, Forestry and Aquaculture Workers	793	**22,411**
Professionals	37,528	**167,044**
Craftsmen and Related Occupations	32,607	**205,836**
Armed Forces Related Occupations	81	**709**
Technicians, Technicians and Assistant Professionals	32,189	**165,596**
Plant and Machine Operators and Assemblers	30,151	**196,233**
Managers	8,262	**23,826**
Total	**332,068**	**2,420,451**

According to ISKUR data, the highest number of unemployed in İstanbul is in the category of **"Unskilled Occupations"** and a total of 77,114 people are looking for a job in this group. This indicates that low-skilled labor force has more difficulty in being employed and the demand for unskilled labor force remains limited. Service and sales workers (64,116 people) and clerical workers (49,227 people) constitute the second and third largest groups among the unemployed. In relation to the industrial sector, **"Plant and Machine Operators and Assemblers"** (30,151 people) and **"Craftsmen and Related Workers"** (32,607 people) are also among the areas with high unemployment. Unemployment is also noteworthy in the groups of **"Professionals"** (37,528 people) and **"Technicians-Technicians"** (32,189 people) (Table 20).

Table 21. Unemployed Registered with ISKUR by Age Groups

Age	Gender	İstanbul	Türkiye
15 - 24	**Male**	26,697	**257,307**
	Female	24,801	**228,122**
	Total	51,498	**485,429**
25 - 29	**Male**	31,097	**245,394**
	Female	33,331	**251,120**
	Total	64,428	**496,514**
30 - 34	**Male**	28,065	**192,957**
	Female	28,780	**207,888**
	Total	56,845	**400,845**
35 - 39	**Male**	25,184	**163,319**
	Female	25,340	**186,245**
	Total	50,524	**349,564**
40 - 44	**Male**	23,669	**136,011**
	Female	22,618	**151,300**
	Total	46,287	**287,311**
45 - 49	**Male**	15,150	**92,109**
	Female	15,717	**101,076**
	Total	30,867	**193,185**
50 - 54	**Male**	9,686	**63,796**
	Female	9,606	**60,281**
	Total	19,292	**124,077**
55 - 59	**Male**	4,033	**29,772**
	Female	4,340	**25,258**
	Total	8,373	**55,030**
60 - 64	**Male**	1,764	**13,047**
	Female	1,225	**8,059**
	Total	2,989	**21,106**
65+	**Male**	584	**4,460**
	Female	381	**2,930**
	Total	965	**7,390**
Total	**Male**	165,929	**1,198,172**
	Female	166,139	**1,222,279**
	Total	332,068	**2,420,451**

According to ISKUR data, the highest number of unemployed in İstanbul is in the 25-29 age group. A total of 64,428 people are registered as unemployed in this age group. This is followed by 56,845 people in the 30-34 age group and 51,498 people in the 15-24 age group. The high youth unemployment rate indicates that recent graduates and new entrants to the labor force have more difficulty in finding employment. There is a significant decline in unemployment rates with increasing age. While the number of unemployed in the 40 and over age group has gradually decreased, unemployment in the 60 and over age group has fallen to very low levels. Analyzed by gender, the number of unemployed women in İstanbul is higher than that of men (165,929 people) with 166,139 people. The fact that the unemployment rate of women in the 25-39 age group is higher than that of men indicates the existence of barriers to women's participation in the labor force (Table 21).

Table 22. Distribution of Unemployed Registered with ISKUR by Educational Background

	Gender	İstanbul	Total
Illiterate	**Male**	1,721	**7,971**
	Female	2,231	**15,619**
	Total	3,952	**23,590**
Literate (no formal education completed)	**Male**	4,542	**23,732**
	Female	4,931	**33,297**
	Total	9,473	**57,029**
Primary Education	**Male**	65,796	**465,555**
	Female	50,199	**388,427**
	Total	115,995	**853,982**
Secondary Education	**Male**	54,893	**470,158**
	Female	49,744	**406,134**
	Total	104,637	**876,292**
Associate Degree	**Male**	14,603	**104,149**
	Female	27,227	**191,638**
	Total	41,830	**295,787**
Bachelor's Degree	**Male**	22,604	**120,459**
	Female	29,680	**178,882**
	Total	52,284	**299,341**
Master's Degree	**Male**	1,687	**5,825**
	Female	2,037	**7,957**
	Total	3.724	**13.782**
PhD	**Male**	83	**323**
	Female	90	**325**
	Total	173	**648**
Total	**Male**	165.929	**1.198.172**
	Female	166.139	**1.222.279**
	Total	332.068	**2.420.451**

According to ISKUR 2023 data, most of the unemployed in İstanbul are primary and secondary education graduates. Primary education graduates are the largest group of unemployed with 115,995 people, while secondary education graduates rank second with 104,637 people. Associate's and bachelor's degree graduates have a significant share among the unemployed with a total of 94,114 people, and it is noteworthy that the unemployment rate of higher education graduates is higher than that of men, especially among women (Table 22).

Table 23. Job Placements for People with Disabilities, Former Convicts and People Injured in the War on Terror

Disadvantaged Groups	Job Placement	Gender	İstanbul	Türkiye
People with disabilities	Public	**Male**	12	**451**
		Female	5	**104**
		Total	17	**555**
	Private	**Male**	6,601	**27,501**
		Female	2,104	**7,121**
		Total	8,705	**34,622**
	Total	**Male**	6,613	**27,952**
		Female	2,109	**7,225**
		Total	8,722	**35,177**
Ex-convict / Injured in the War on Terror	Public	**Male**	1	**165**
		Female	0	**3**
		Total	1	**168**

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In 2023, a total of 8,722 disabled people were employed by ISKUR in İstanbul, and the majority of these placements were in the private sector. Only 17 disabled people were employed in the public sector. Employment of ex-convicts and individuals injured in the fight against terrorism is quite limited. While a total of 168 people were employed in Türkiye, only 1 person was employed in the public sector in İstanbul (Table 23).

Table 24. Statistics on People with Disabilities

People with Disabled	Job Placement	İstanbul	Türkiye
Number of Workplaces Obliged to Employ Disabled People	**Public**	105	**1,433**
	Private	6,008	**21,501**
	Total	6,113	**22,934**
Number of Disabled People Currently Working	**Public**	3,631	**22,449**
	Private	33,197	**121,729**
	Total	36,828	**144,178**
Number of Open Disability Quotas	**Public**	1,027	**3,532**
	Private	8,175	**21,370**
	Total	9,202	**24,902**
Number of People with Disabilities Employed Above the Quota	**Public**	414	**3,453**
	Private	1,697	**10,407**
	Total	2,111	**13,860**

As of 2023, according to the data on the number of workplaces, working disabled people, open quotas and distribution of disabled people working in excess of quotas in İstanbul and Türkiye (Table 24), there are a total of 6,113 workplaces in İstanbul that are obliged to employ disabled people, most of which belong to the private sector. The number of disabled people currently working is 36,828 and only 3,631 of them are employed in the public sector. There are a total of 9,202 vacancies in İstanbul and a similar situation is observed in Türkiye, where 24,902 vacancies remain unfilled. On the other hand, it is observed that some workplaces support the employment of people with disabilities beyond the legal obligations and 2,111 people with disabilities are employed in excess of quotas in İstanbul.

Table 25. Services Provided by ISKUR for Women

Employment Movements	Services	İstanbul	Türkiye
Job Placement	**Public**	40	**4,935**
	Private	107,535	**459,203**
	Total	107,575	**464,138**
Active Labor Market Programs	**Vocational Training**	137	**607**
	On-the-Job Training	819	**26,761**
	Total	956	**27,368**
Individual Counseling Services	**Number of Interviews**	136,347	**1,132,034**

In İstanbul, a total of 107,575 women were placed in jobs through ISKUR, the majority of whom were employed in the private sector. In Türkiye as a whole, 464,138 women were placed in jobs and the number of women employed in the public sector remained very limited. Within the scope of active labor market policies for women, 956 women in İstanbul benefited from vocational training and on-the-job training programs. In Türkiye, a total of 27,368 women benefited from these programs. In addition, the number of women benefiting from individual counseling services was 136,347 in İstanbul, indicating the importance of counseling services to support women's labor force participation (Table 25).

Table 26. ISKUR's Services for Social Assistance Recipients

Employment Movements	Gender / Training	İstanbul	Türkiye
Job Placement	**Male**	280	**10,923**
	Female	246	**5,902**
	Total	526	**16,825**
Active Labor Market Programs	**Vocational Training**	0	**181**
	On-the-Job Training	23	**2,156**
	Total	23	**2,337**

In İstanbul, a total of 526 people were placed in employment through ISKUR, of which 280 were men and 246 were women. In Türkiye, 16,825 people receiving social assistance were placed in employment. In İstanbul, the labor force participation rate of individuals receiving social assistance is low and women's participation in employment is more limited compared to men. These data reveal that vocational training and on-the-job training programs should be made more widespread in order to direct individuals receiving social assistance to sustainable employment (Table 26).

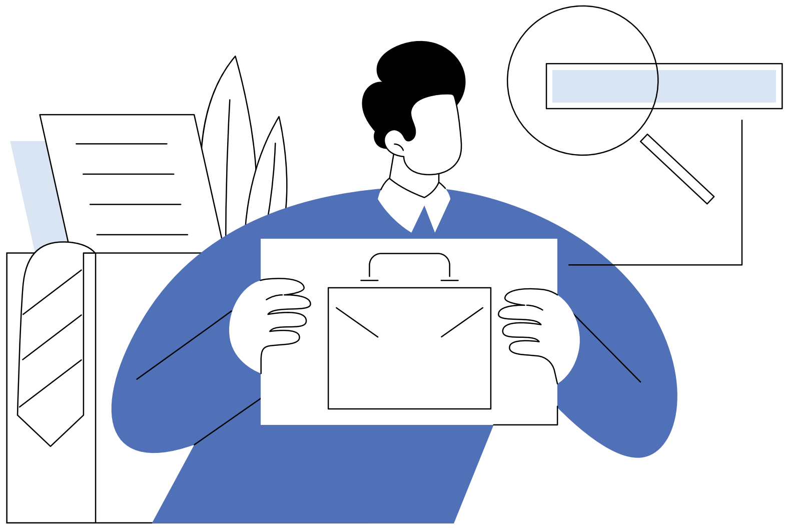

Table 27. Unemployment Insurance Activities

Activities	Appropriation Status	İstanbul	Türkiye
Application for Unemployment Allowance		386,513	**1,614,184**
Number of Unemployment Allowance Claimants	**Unemployment Allowance Withheld**	65,353	**247,973**
	Unemployment Allowance Ended	54,786	**184,034**
	Ongoing Payment	82,226	**302,839**

A total of 386,513 people applied for unemployment benefits in İstanbul, while this number was recorded as 1,614,184 in Türkiye as a whole. However, while the number of people who were eligible for unemployment benefit was 65,353 in İstanbul, this number was realized as 247,973 in Türkiye. When the unemployment benefit process is analyzed, 82,226 people in İstanbul continued to receive unemployment benefit, while 54,786 people's benefit was terminated (Table 27).

Table 28. Unemployment Allowance Claimants by Age Groups

Age Ranges	Gender	İstanbul	Türkiye
15-24	**Male**	8,901	**32,249**
	Female	6,657	**22,647**
	Total	15,558	**54,896**
25-29	**Male**	21,183	**79,901**
	Female	18,822	**62,404**
	Total	40,005	**142,305**
30-34	**Male**	23,711	**91,156**
	Female	17,045	**56,978**
	Total	40,756	**148,134**
35-39	**Male**	23,204	**89,522**
	Female	14,991	**50,113**
	Total	38,195	**139,635**
40-44	**Male**	20,484	**78,183**
	Female	13,925	**47,259**
	Total	34,409	**125,442**
45-49	**Male**	9,130	**37,126**
	Female	9,393	**32,460**
	Total	18,523	**69,586**
50-54	**Male**	4,042	**17,185**
	Female	5,391	**18,480**
	Total	9,433	**35,665**
55-59	**Male**	1,848	**7,371**
	Female	2,452	**7,937**
	Total	4,300	**15,308**
60-64	**Male**	388	**1,489**
	Female	533	**1,617**
	Total	921	**3,106**
65+	**Male**	121	**370**
	Female	144	**399**
	Total	265	**769**
Total	**Male**	113,012	**434,552**
	Female	89,353	**300,294**
	Total	202,365	**734,846**

In İstanbul, a total of 202,365 people were eligible for unemployment benefits. When analyzed by age groups, it is seen that the highest number of people receiving unemployment allowance is in the 25-34 age group. In this age group, a total of 80,761 people in İstanbul received unemployment allowance. There is a significant decline in the number of individuals entitled to unemployment benefits with increasing age. While the number of people aged 50 and over receiving unemployment benefits decreased considerably, only 265 people in the 65 and over age group received unemployment benefits. In terms of gender, it is noteworthy that men are more likely to benefit from unemployment benefits than women. In İstanbul, 55.9% of unemployment benefit beneficiaries are men and 44.1% are women (Table 28).

Table 29. Unemployment Allowance Beneficiaries According to Educational Background by Provinces

Education Status	Gender	İstanbul	Türkiye
Illiterate	**Male**	1,423	**3,390**
	Female	1,663	**3,476**
	Total	3,086	**6,866**
Literate (no formal education completed)	**Male**	3,334	**9,005**
	Female	3,178	**7,417**
	Total	6,512	**16,422**
Primary Education	**Male**	44,904	**183,297**
	Female	27,900	**99,356**
	Total	72,804	**282,653**
Secondary Education	**Male**	35,013	**147,556**
	Female	23,139	**83,452**
	Total	58,152	**231,008**
Associate Degree	**Male**	9,703	**33,978**
	Female	13,272	**43,329**
	Total	22,975	**77,307**
Bachelor’s Degree	**Male**	17,149	**53,554**
	Female	18,509	**59,102**
	Total	35,658	**112,656**
Master's Degree	**Male**	1,432	**3,629**
	Female	1,639	**4,043**
	Total	3,071	**7,672**
PhD	**Male**	54	**143**
	Female	53	**119**
	Total	107	**262**
Total	**Male**	113,012	**434,552**
	Female	89,353	**300,294**
	Total	202,365	**734,846**

As of 2023, according to the data on the distribution of individuals entitled to unemployment benefits in İstanbul and Türkiye (Table 29), the majority of individuals entitled to unemployment benefits are primary and secondary education graduates. Of the 202,365 individuals entitled to unemployment benefits in İstanbul, 72,804 were primary education graduates and 58,152 were secondary education graduates. A similar trend is observed across Türkiye, with individuals with low and middle education levels benefiting the most from unemployment insurance. As the level of education increases, the number of individuals entitled to unemployment benefits decreases. In İstanbul, the number of associate's degree graduates is 22,975 and the number of bachelor's degree graduates is 35,658. The number of individuals receiving unemployment benefits at master's and doctoral level is quite low. In general, it is observed that most of the beneficiaries of unemployment insurance have low and medium level of education, and the rate of unemployment insurance entitlement decreases as the level of education increases.

Table 30. Active Labor Market Programs by Education and Program Types by Province

Provinces\Status of Education	Course for the Disabled			Voc. Training			On-the-Job Training Program (IEP)			General Total		
	M	F	T	M	F	T	M	F	T	M	F	T
Türkiye	**84**	**50**	**134**	**963**	**557**	**1.520**	**22.056**	**26.761**	**48.817**	**23.103**	**27.368**	**50.471**
Illiterate	3	0	3	0	0	0	33	17	50	36	17	53
Literate	1	6	7	1	6	7	636	796	1,432	638	808	1,446
No Formal Education Completed	26	13	39	120	114	234	6,237	8,943	15,180	6,383	9,070	15,453
Secondary Education	49	27	76	171	149	320	10,526	10,356	20,882	10,746	10,532	21,278
Associate Degree	3	2	5	322	106	428	2,419	3,908	6,327	2,744	4,016	6,760
Bachelor's Degree	2	2	4	337	176	513	2,161	2,683	4,844	2,500	2,861	5,361
Master's Degree	0	0	0	12	6	18	43	58	101	55	64	119
PhD	0	0	0	0	0	0	1	0	1	1	0	1
İstanbul	**0**	**0**	**0**	**332**	**137**	**469**	**1,018**	**819**	**1,837**	**1,350**	**956**	**2,306**
Illiterate	0	0	0	0	0	0	0	0	0	0	0	0
Literate	0	0	0	0	0	0	25	30	55	25	30	55
Primary Education	0	0	0	0	0	0	119	107	226	119	107	226
Secondary Education (High School and Equivalent)	0	0	0	0	0	0	162	170	332	162	170	332
Primary Education, Secondary Education (High School and Equivalent)	0	0	0	80	23	103	136	172	308	216	195	411
Secondary Education (High School and Equivalent)	0	0	0	243	110	353	568	330	898	811	440	1,251
Bachelor's Degree	0	0	0	9	4	13	8	10	18	17	14	31
Master's Degree	0	0	0	0	0	0	0	0	0	0	0	0
PhD	0	0	0	0	0	0	0	0	0	0	0	0

As of 2023, participation in active labor market programs in İstanbul and Türkiye is analyzed by education level (Table 30). A total of 2,306 people benefited from these programs in İstanbul, while this number was recorded as 50,471 in Türkiye. Participation in on-the-job training programs (OJT) was limited to 1,837 people in İstanbul, with the highest participation by bachelor's degree graduates (898 people) and secondary education graduates (332 people).

Table 31. ISKUR Counseling and Employment Support Activities - Comparison of İstanbul and Türkiye Statistics

Number of Interviews and Participants	Activities	İstanbul	Türkiye
Number of Individual Interviews	**Business Consultancy**	324,473	**2,721,841**
	Vocational Counseling	2,720	**44,143**
	Workplace Visit	112,783	**695,536**
	School Visit	1,524	**9,185**
	Group Interview Availability	152,450	**897,525**
Number of Work Club Participants	**Male**	2,774	**18,708**
	Female	4,814	**32,917**
	Total	7,588	**51,625**

In İstanbul, 324,473 people benefited from individual job counseling services, compared to 2,721,841 in Türkiye (Table 31). While the number of beneficiaries of vocational counseling services was limited to 2,720 in İstanbul, the number of workplace visits to ensure direct contact with employers was 112,783. In terms of participation in job club activities, a total of 7,588 people took part in İstanbul, of which 4,814 were women and 2,774 were men.

Table 32. Individual Interview by Disability, Youth, Women and Higher Education Status

Individual Interview	Gender	İstanbul	Türkiye
Total Number of Interviews	**Male**	190,846	**1,633,950**
	Female	136,347	**1,132,034**
	Total	327,193	**2,765,984**
Young (15-24)	**Male**	39,459	**394,701**
	Female	31,510	**272,298**
	Total	70,969	**666,999**
Disabled	**Male**	34,279	**213,143**
	Female	9,888	**55,286**
	Total	44,167	**268,429**
Higher Education	**Male**	31,953	**216,101**
	Female	32,598	**241,861**
	Total	64,551	**457,962**

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This table shows the distribution of individual job counseling interviews conducted for people with disabilities, young job seekers, higher education graduates and women in İstanbul and Türkiye as of 2023 (Table 32). A total of 327,193 individual interviews were conducted in İstanbul, of which 190,846 were conducted with men and 136,347 with women. The total number of individual interviews conducted for young job seekers (15-24 years old) was recorded as 70,969 and it is seen that this group received intensive counseling support during the employment process. The total number of individual interviews with people with disabilities was 44,167 and it was noteworthy that male people with disabilities benefited from these services more than female people. The total number of individual interviews conducted for higher education graduates was 64,551.

Table 33. Individual Interviews by Education Level

Education Level	Gender	İstanbul	Türkiye
Illiterate	**Male**	510	**3,933**
	Female	678	**7,125**
	Total	1,188	**11,058**
Literate (No Formal Education Completed)	**Male**	2,038	**19,061**
	Female	2,270	**23,745**
	Total	4,308	**42,806**
Primary Education	**Male**	88,389	**756,975**
	Female	54,872	**465,798**
	Total	143,261	**1,222,773**
Secondary Education	**Male**	67,956	**637,880**
	Female	45,929	**393,505**
	Total	113,885	**1,031,385**
Associate Degree	**Male**	13,222	**107,403**
	Female	16,260	**130,588**
	Total	29,482	**237,991**
Bachelor's Degree	**Male**	17,485	**103,958**
	Female	15,271	**106,611**
	Total	32,756	**210,569**
Master's Degree	**Male**	1,187	**4,507**
	Female	1,003	**4,495**
	Total	2,190	**9,002**
PhD	**Male**	59	**233**
	Female	64	**167**
	Total	123	**400**
Total	**Male**	190,846	**1,633,950**
	Female	136,347	**1,132,034**
	Total	327,193	**2,765,984**

This table shows the distribution of individual job counseling interviews by education level in İstanbul and Türkiye as of 2023 (Table 33). According to the data, primary and secondary education graduates are the groups that benefit the most from individual counseling services. A total of 327,193 individual counseling interviews were conducted in İstanbul, 143,261 of these interviews were conducted with primary education graduates and 113,885 with secondary education graduates. While the participation of associate's and bachelor's degree graduates in individual counseling services remains at a lower level, this rate is quite limited for master's and doctorate graduates.

Table 34. ISKUR - Job Vacancies, Job Placements and Registered Unemployed by Statistics

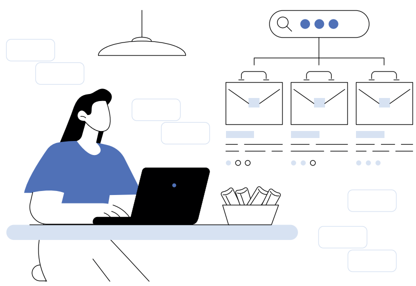
Employment Status	Gender	İstanbul	Türkiye
Open Job Postings	**Total**	650,026	**2,677,006**
Job Placement	**Male**	148,361	**772,888**
	Female	107,575	**464,138**
	Total	255,936	**1,237,026**
Registered Unemployed	**Male**	165,929	**1,198,172**
	Female	166,139	**1,222,279**
	Total	332,068	**2,420,451**

While there were 650,026 job vacancies in İstanbul, this number was recorded as 2,677,006 in Türkiye. According to job placement data, a total of 255,936 people were employed in İstanbul, of which 148,361 were male and 107,575 were female. In terms of registered unemployed, a total of 332,068 people were registered as unemployed in the city (Table 34).

2.2.3. TURKSTAT Domestic and International Migration Statistics

Table 35. Internal Migration Statistics: Türkiye vs. İstanbul, 2023

Migration Status	Türkiye	İstanbul
Total Population	**85,372,377**	**15,655,924**
Immigration	3,450,953	412,707
Emigration	3,450,953	581,330
Net Migration	0	-168,623
Net Migration Rate	0	-10,7



This table shows the migration movements in İstanbul and Türkiye as of 2023 (Table 35). According to the data, İstanbul is a net migrant city, with 412,707 people migrating to

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İstanbul and 581,330 people leaving the city. Accordingly, the net migration number was calculated as -168,623 and the net migration rate was determined as -10.7% (Table 35).

Table 36. Reasons for Migration to İstanbul, 2023

Reasons for Migration	Türkiye	İstanbul
Total	**3,450,953**	**412,707**
Transfer / Job Change	**320,142**	38,191
Starting a Job / Finding a Job	**285,825**	57,526
Education	**512,011**	53,956
Change of Marital Status / Family Reasons	**152,046**	21,938
Better Housing and Living Conditions	**518,016**	88,286
Migration Dependent on a Household / Family Member	**601,481**	52,584
Returning to Homestay/Hometown	**99,975**	1,207
Health / Care	**19,450**	1,883
Buying a House	**95,570**	8,725
Pension	**49,890**	4,199
Natural Disaster / Emergency	**499,363**	46,134
Other	**103,547**	5,394
Unknown	**193,637**	32,684

As of 2023, most of the migrants to İstanbul moved for better housing and living conditions (21.4%), finding a job (13.9%) and education (13.1%). In particular, 88,286 people who migrated to İstanbul preferred the city for better living conditions, which may be related to the social and economic opportunities offered by the city. The total number of those who came for reasons such as starting a job or transferring is 95,717, which shows that İstanbul is still a center of attraction for the labor force. Overall, living standards, education and employment opportunities are the main drivers of migration to İstanbul (Table 36).

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Table 37. Reasons for Out-Migration from İstanbul to Other Provinces, 2023

Reason for Migration	Total	İstanbul
Total	**3,450,953**	**581,330**
Job Transfer / Change of Workplace	320,142	42,737
Starting a Job / Employment Opportunity	285,825	31,180
Education	512,011	44,390
Marital Status Change / Family Reasons	152,046	24,567
Better Housing and Living Conditions	518,016	131,603
Migration Dependent on a Household / Family Member	601,481	149,875
Returning to Homestay/Hometown	99,975	37,616
Health / Care	19,450	3,419
Purchase of Housing	95,570	32,647
Retirement /Pension	49,890	19,268
Natural Disaster / Emergency Situations	499,363	4,216
Other	103,547	33,919
Unknown/ Not Specified	193,637	25,893

This table shows the migration movements by reasons for migration in İstanbul and Türkiye as of 2023 (Table 37). According to the data, most migration from İstanbul was due to better housing and living conditions (22.6%), dependent migration (25.8%) and education (7.6%). In particular, 131,603 people left İstanbul due to better housing and living conditions, indicating that high living costs, earthquake risk and rent prices are a determining factor in migration. Within the scope of migration dependent on a household/family member, 149,875 people left İstanbul. The number of those who migrated due to transfer or job change is 42,737, indicating that İstanbul has a high mobility in terms of working population. Overall, İstanbul has a net migration loss of (-168,623). It is understood that most of those who left the city migrated due to economic reasons, housing prices and family reasons.

Table 38. Incoming and Outgoing Migration by Gender, 2023

Migration Status	Gender	Türkiye	İstanbul
Total Population		85,372,377	15,655,924
Immigration	**Total**	316,456	92,547
	Male	171,395	46,217
	Female	145,061	46,330
Emigration	**Total**	714,579	260,287
	Male	394,186	142,615
	Female	320,393	117,672
Net Migration		-398,123	-167,740

İstanbul is a city of net migration, with more people leaving the city than arriving. A total of 92,547 people migrated to İstanbul, while the number of people leaving the city was 260,287. In terms of gender, 46,217 of those who arrived in İstanbul were male and 46,330 were female, while 142,615 of those who left the city were male and 117,672 were female (Table 38). This indicates that men are more dominant in migration movements and that labor force dynamics in particular may have an impact on migration.

Overall, one of the biggest reasons for İstanbul's migration loss is the high cost of living and housing prices. In order for the city to maintain its economic attractiveness, it is crucial to improve transportation infrastructure, housing projects and social services. Job opportunities need to be increased and rental prices need to be brought down to reasonable levels to prevent the migration of the young population in particular.

2.3. Social Security and Labor Data

2.3.1. SSI Data (Type and Distribution of Insurance, Social Security Coverage)

Table 39. Social Security Coverage (4/1-A, 4/1-B, 4/1-C), 2023

SSI Status	SSI Coverage	İstanbul	Türkiye
Social Security Coverage		**15,620,077**	**34,250,646**
Active Insured	**4/1-A**	4,964,832	9,058,412
	4/1-B	669,848	1,341,932
	4/1-C	433,345	1,109,918
	Total	**6,068,025**	**11,510,262**
Income and Monthly Recipients	**4/1-A**	2,527,420	4,861,607
	4/1-B	320,954	871,024
	4/1-C	347,968	839,401
	Total	**3,196,342**	**6,572,032**
Dependent	**4/1-A**	2,831,379	6,615,826
	4/1-B	1,667,232	3,860,196
	4/1-C	910,708	2,480,636
	Total	**5,409,319**	**12,956,658**
Social Security Coverage, 4/1-A		**10,323,631**	**20,535,845**
Social Security Coverage, 4/1-B		**2,658,034**	**6,073,152**
Social Security Coverage, 4/1-C		**1,692,021**	**4,429,955**
Those Registered under General Health Insurance		**946,391**	**3,211,694**

A total of 15,620,077 people are covered by social security in İstanbul, and a significant portion of this population consists of actively insured individuals. The number of actively insured individuals in İstanbul is 6,068,025, of which 4,964,832 are private sector employees (4/1-A), 669,848 are covered by BAG-KUR (4/1-B) and 433,345 are public sector employees (4/1-C). A similar distribution is observed across Türkiye. In terms of individuals receiving income and pensions, a total of 3,196,342 people in İstanbul receive pensions or social assistance. In terms of dependents, 5,409,319 people benefit from health services through insured individuals. In addition, the number of people registered under General Health Insurance (GHI) is 946,391, indicating that the GHI system plays an important role in access to health services for individuals without social security in İstanbul (Table 39).

Table 40. Distribution of Compulsory Insured by Gender (4/1-A, 4/1-B, 4/1-C), 2023

SSI Status	SSI Coverage	Gender	İstanbul	Türkiye
4/1-A Compulsory Insured		**Male**	2,803,770	5,260,477
		Female	1,690,072	2,864,073
		Total	4,493,842	8,124,550
4/1-B Compulsory Insured	Compulsory (Except Agriculture)	**Male**	484,998	900,069
		Female	139,672	265,494
		Total	624,670	1,165,563
	Mukhtar	**Male**	296	3,335
		Female	79	222
		Total	375	3,557
	Agriculture Compulsory	**Male**	1,940	82,086
		Female	793	20,707
		Total	2,733	102,793
	4/1-B Compulsory Insured Total	**Male**	487,234	985,490
		Female	140,544	286,423
		Total	627,778	1,271,913
4/1-C Compulsory Insured		**Male**	236,343	632,128
		Female	196,867	477,592
		Total	433,210	1,109,720
Total Number of Compulsory Insured			**5,554,830**	**10,506,183**

This table shows the distribution of compulsorily insured employees by gender in İstanbul and Türkiye as of 2023 (Table 40). According to the data, a total of 5,554,830 people are compulsorily insured in İstanbul. The largest group is composed of insured people with 4/1-A status, which covers private sector employees, and 4,493,842 people are registered in this scope. The number of male and female employees in the private sector is recorded as 2,803,770 and 1,690,072, respectively.

In İstanbul, 627,778 individuals are insured under the BAG-KUR scheme (4/1-B), with the majority being self-employed men, totaling 487,234. The number of women insured is 140,544, indicating that a higher proportion of men are registered among small business owners and self-employed. In the public sector (4/1-C), a total of 433,210 people are insured in İstanbul, of which 236,343 are male and 196,867 are female. Despite a more balanced gender distribution in public sector employment relative to the private sector, men continue to outnumber women.

Table 41. Breakdown of 4/1-A Workplaces, Compulsory Insured People and Average Daily Earnings by Sector and Gender, 2023: Comparison of İstanbul and Türkiye

4/1-A Scope	Sector	İstanbul	Türkiye
Workplace	**Permanent**	579,117	**1,992,551**
	Temporary	28,261	**186,572**
	Public	5,292	**46,660**
	Private	602,086	**2,132,463**
	Total	**607,378**	**2,179,123**
Compulsory Insured	**Permanent**	4,065,596	**14,064,318**
	Temporary	428,246	**2,342,102**
	Public	282,184	**1,936,402**
	Private	4,211,658	**14,470,018**
	Male	2,803,770	**10,871,438**
	Female	1,690,072	**5,534,982**
	Total	**4,493,842**	**16,406,420**
Average Daily Earnings (TRY)	**Permanent**	943,6	**820,17**
	Temporary	689,89	**644,8**
	Public	1,221,23	**1,028,11**
	Private	900,86	**764,15**
	Male	959,07	**835,75**
	Female	861,34	**723,47**
	Total	**922,45**	**797,99**

This table shows the distribution of workplaces, compulsory insured people and average daily earnings by sector and gender in İstanbul and Türkiye as of 2023 (Table 41). According to the data, there are 607,378 workplaces in İstanbul. The majority of these workplaces belong to the private sector, with 602,086 enterprises operating in the private sector. The number of workplaces in the public sector is limited to 5,292. In terms of compulsorily insured employees, a total of 4,493,842 people in İstanbul are insured within the scope of 4/1-A. Of these employees, 4,065,596 are employed in permanent status and 428,246 in temporary status. In terms of gender distribution, 2,803,770 of insured employees are male and 1,690,072 are female.

In terms of average daily earnings, the average daily earnings of individuals working in the public sector is 1,221.23 TRY, which is above the average daily earnings of those working in the private sector (900.86 TRY). In terms of gender, the average daily earnings of male employees is 959.07 TRY, while the average daily earnings of female employees is 861.34 TRY.

Table 42. General SSI Data Specific to İstanbul, 2023

Indicator	City	2024.01	2024.02	2024.03	2024.04	2024.05	2024.06	2024.07	2024.08	2024.09	2024.10
Insured, Active, Total (4a, 4b, 4c)	İstanbul	6043989	6023158	6021248	5986853	6043266	5978726	5890129	5903693	6109427	6103015
Insured, Active, Total (4a)	İstanbul	4934354	4925795	4921196	4891916	4949336	4589748	4799119	4813036	5016860	5004472
Insured, Active, Total (4b)	İstanbul	669674	657875	661040	656846	657182	652099	653671	654815	656999	661834
Insured, Active, Total (4b) (Excluding Agriculture)	İstanbul	667034	655269	658463	654315	654643	649624	651207	652386	654575	659426
Insured, Active, Total (4b) (Agriculture)	İstanbul	2640	2606	2377	2531	2509	2475	2464	2029	2424	2408
Insured, Active, Total (4c)	İstanbul	439961	439488	439012	438091	436778	436879	437339	435532	435568	436709
Insured, Active, Compulsory Insured (4a)	İstanbul	4468198	4450567	4441016	4409103	4470102	4432718	4466500	4477483	4532709	4521205
Insured, Active, Compulsory Insured (4b)	İstanbul	627636	616146	619357	615383	615852	611459	613236	614291	616385	621399
Insured, Active, Compulsory Insured (4b) (Except Agriculture and Mukhtar)	İstanbul	624619	613162	616387	612387	612891	608511	610332	611425	613539	618566
Insured, Active, Compulsory Insured (4b) (Agriculture)	İstanbul	2640	2606	2877	2531	2509	2475	2464	2429	2424	2408
Insured, Active, Compulsory Insured (4c)	İstanbul	439825	439350	438873	437982	436649	436752	437211	435713	435431	436570
Insured, Active, Agricultural Insured (2925 S.K.) (4a)	İstanbul	103	98	107	107	108	114	106	111	116	109
Insured, Active, Apprentice (4a)	İstanbul	70808	70473	68896	68559	68074	64257	26701	27933	67256	69292
Insured, Active, Interns and Trainees (4a)	İstanbul	248440	256680	263534	266907	263845	244510	158451	161187	270145	267056
Insured, Active, Mukhtar (4b)	İstanbul	87	38	393	495	482	473	440	437	422	435
Insured, Active, Other Insured (4a)	İstanbul	136128	137562	137542	137745	138064	139463	138907	138151	138216	138270
Insured, Active, Other Insured (4c)	İstanbul	136	138	139	139	129	127	125	129	137	139
Insured, Active, Optional Insured (4b)	İstanbul	42038	41729	41683	41463	41270	40435	40435	40524	40614	40435
Insured, Active, Optional Insured (4b) (Excluding Agriculture)	İstanbul	42038	41729	41683	41463	41270	40435	40435	40524	40614	40435
Insured, Active, Optional Insured (4b) (Agriculture)	İstanbul	0	0	0	0	0	0	0	0	0	0

At the beginning of 2023, the total number of insured employees, which was 6,043,989, fluctuated throughout the year, reaching its lowest level of 5,890,129 in July and rising again to 6,109,427 in September. These changes may have been affected by seasonal employment fluctuations, economic fluctuations and sectoral employment policies. The majority of insured employees in İstanbul are in the 4/1-A status, which covers private sector employees, and the number of employees in this group varied between 4,793,119 and 5,016,860 throughout the year. The number of insured employees under BAG-KUR (4/1-B) remained relatively stable, fluctuating between 652,099 and 669,674. The 4/1-C status, which covers public employees, followed a more stable course during the year, reaching a low of 435,431 and a high of 439,961 (Table 42).

In particular, the number of compulsory insured people fluctuated significantly throughout the year. The number of compulsorily insured 4/1-A employees fluctuated between 4,409,103 and 4,532,709 throughout the year, while the number of compulsorily insured BAG-KUR employees fluctuated between 611,459 and 621,399. Moreover, the number of apprentices, interns and trainees showed significant fluctuations periodically. For instance, the number of apprentices, trainees and interns decreased significantly in July and August, before increasing again in September. This suggests that there is temporary employment mobility in connection with the summer period.

2.3.2. Work Permit Statistics from the Ministry of Labor and Social Security

Table 43. Gender Breakdown of Work Permits Issued to Foreigners, 2023

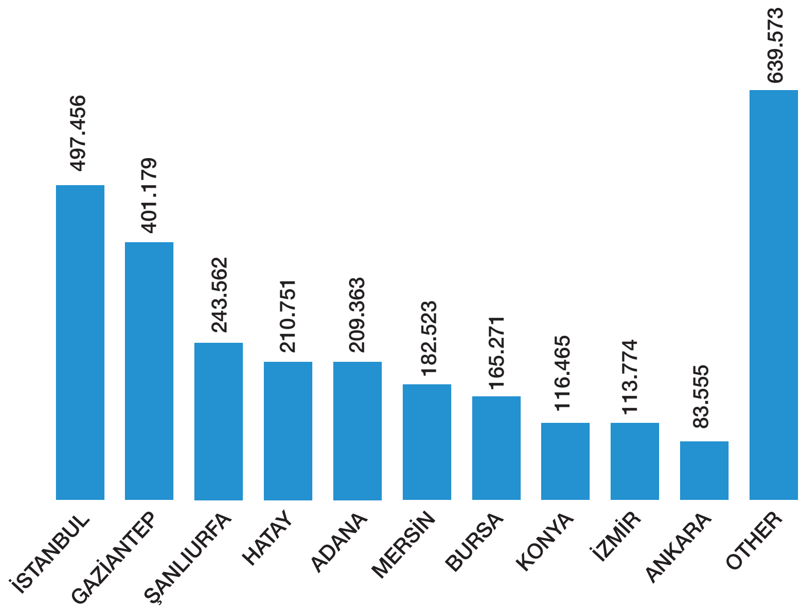
Province	İstanbul	Türkiye
Female	25,766	**33,449**
Male	57,663	**107,031**
Total	**83,429**	**140,480**

As of 2023, according to the number of work permits issued to foreigners in İstanbul and Türkiye (Table 43), a total of 83,429 foreigners were granted work permits in İstanbul, which is quite high compared to 140,480 work permits in Türkiye. In terms of gender, the majority of foreigners who received work permits in İstanbul were men with 57,663 work permits, while the number of work permits issued to women was recorded as 25,766 (Table 43).

2.4. Data from the Presidency of Migration Management

A total of 1,065,902 foreigners live in Türkiye with residence permits. While İstanbul is by far the city with the largest foreign population with 532,352 people, cities such as Antalya (105,377), Ankara (69,667), Bursa (48,169) and Mersin (44,401) are also among the major immigration centers (Table 44; Graphic 5).

Graphic 5. Distribution of Foreigners with Residence Permit in Türkiye by Province (2025)



*30.01.2025 as of the date

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Table 44. Distribution of Foreigners in Türkiye with Residence Permit by Provinces as of 27.02.2025

Province Order	Province	Total Number of Foreigners	Province Order	Province	Total Number of Foreigners
1	İstanbul	532.352	42	Kahramanmaraş	1.675
2	Antalya	105.377	43	Şanlıurfa	1.671
3	Ankara	69.667	44	Kırşehir	1.621
4	Bursa	48.169	45	Yozgat	1.589
5	Mersin	44.401	46	Bartın	1.582
6	İzmir	27.913	47	Kastamonu	1.536
7	Muğla	19.886	48	Burdur	1.521
8	Yalova	17.016	49	Çankırı	1.397
9	Sakarya	15.577	50	Ordu	1.369
10	Kocaeli	13.878	51	Gümüşhane	1.320
11	Gaziantep	9.816	52	Nevşehir	1.310
12	Aydın	9.635	53	Elazığ	1.279
13	Konya	9.481	54	Diyarbakır	1.229
14	Samsun	8.705	55	Van	1.187
15	Karabük	7.886	56	Malatya	1.152
16	Eskişehir	7.451	57	Rize	967
17	Tekirdağ	6.834	58	Niğde	959
18	Edirne	6.670	59	Mardin	957
19	Kayseri	6.257	60	Erzincan	788
20	Trabzon	6.046	61	Kars	721
21	Balıkesir	5.884	62	Karaman	708
22	Kütahya	5.312	63	Osmaniye	692
23	Adana	4.914	64	Kilis	673
24	Bolu	4.729	65	Kırıkkale	666
25	Denizli	3.999	66	Iğdır	597
26	Kırklareli	3.661	67	Şırnak	591
27	Çanakkale	3.623	68	Amasya	557
28	Tokat	2.984	69	Hakkari	555
29	Manisa	2.864	70	Adıyaman	485
30	Afyonkarahisar	2.803	71	Batman	458
31	Hatay	2.802	72	Bitlis	458
32	Isparta	2.764	73	Ağrı	450
33	Sivas	2.616	74	Bayburt	441
34	Düzce	2.163	75	Artvin	358
35	Aksaray	2.109	76	Sinop	342
36	Uşak	2.093	77	Siirt	335
37	Çorum	2.020	78	Bingöl	316
38	Erzurum	1.984	79	Ardahan	254
39	Giresun	1.919	80	Muş	117
40	Bilecik	1.843	81	Tunceli	54
41	Zonguldak	1.816			

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İstanbul ranks first among cities receiving migration, largely due to its economic vitality, commercial opportunities, cultural appeal, and strategic position in the global labor market. As Türkiye's largest financial, industrial and commercial center, İstanbul offers significant opportunities for foreign labor and investors. Especially in the service sector, construction, logistics and tourism, the employment rate of the foreign population is high.

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Table 45. Distribution of Syrians under Temporary Protection by Province

Province Order	Provinces	SuTP	Province Population	Total Number of People Living in the Province	SuTP Rate
1	**İstanbul**	491,026	15,701,602	16,192,628	3,90%
2	Gaziantep	394,900	2,193,683	2,588,263	15,26%
3	Şanlıurfa	242,021	2,237,785	2,479,766	9,76%
4	Adana	207,333	2,200,484	2,487,817	8,33%
5	Hatay	204,067	1,562,185	1,766,252	11,55%
6	Mersin	178,783	1,954,279	2,133,062	8,81%
7	Bursa	162,928	3,238,618	3,401,546	4,79%
8	Konya	115,360	2,330,028	2,445,384	4,97%
9	İzmir	112,503	4,493,242	4,605,745	2,44%
10	Kahramanmaraş	80,123	1,134,105	1,214,228	6,60%
11	Kayseri	75,212	1,452,458	1,527,670	4,92%
12	Kilis	61,306	156,738	218,045	28,12%
13	Kocaeli	49,058	2,130,006	2,179,064	2,25%
14	Mardin	45,530	1,145,911	1,191,441	4,00%
15	Osmaniye	35,603	361,062	596,668	5,97%
16	Malatya	26,508	750,491	776,995	3,41%
17	Ankara	22,147	5,864,049	5,946,196	1,38%
18	Diyarbakır	21,477	1,833,684	1,885,161	1,16%
19	Adıyaman	20,083	611,037	631,120	3,18%
20	Sakarya	14,370	1,110,735	1,125,105	1,28%
21	Manisa	12,660	1,475,353	1,488,013	0,85%
22	Denizli	12,617	1,061,371	1,073,988	1,19%
23	Batman	11,991	654,528	665,719	1,83%
24	Tekirdağ	11,086	1,167,162	1,198,208	0,90%
25	Elâzığ	10,331	601,981	612,272	1,68%
26	Muğla	9,948	1,083,867	1,092,815	0,91%
27	Afyonkarahisar	8,798	750,393	758,991	1,16%
28	Aydin	7,971	1,165,943	1,173,914	0,68%
29	Samsun	7,787	1,382,376	1,390,563	0,56%
30	Burdur	7,780	775,826	783,606	2,70%
31	Eskişehir	6,723	921,630	928,353	0,72%
32	Antalya	6,710	2,722,108	2,728,853	0,25%
33	Isparta	6,098	446,409	453,402	1,54%
34	Niğde	4,788	372,708	377,496	1,27%
35	Yozgat	4,613	413,161	417,774	1,10%
36	Balıkesir	3,975	1,276,096	1,280,071	0,31%
37	Kütahya	3,940	571,078	572,072	0,70%
38	Trabzon	3,444	822,270	825,714	0,42%
39	Çorum	3,330	521,335	524,665	0,63%
40	Yalova	3,268	307,882	311,150	1,05%
41	Çanakkale	3,263	568,966	572,229	0,57%
42	Siirt	3,139	336,453	339,592	0,92%
43	Bolu	3,134	326,408	329,743	1,01%
44	Uşak	2,868	375,310	378,178	0,76%

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Table 45. Distribution of Syrians under Temporary Protection by Province

Province Order	Provinces	SuTP	Province Population	Total Number of People Living in the Province	SuTP Rate
45	Aksaray	2,847	439,474	442,321	0,64%
46	Sivas	2,768	637,007	639,775	0,43%
47	Nevşehir	1,971	317,952	319,923	0,36%
48	Şirnak	1,922	570,826	572,748	0,38%
49	Bingöl	1,711	283,278	284,447	0,41%
50	Kırıkkale	1,618	283,053	284,671	0,57%
51	Muş	1,351	392,301	393,652	0,34%
52	Tokat	1,341	612,674	613,998	0,22%
53	Kırşehir	1,308	244,546	245,850	0,53%
54	Van	1,287	1,118,087	1,119,374	0,11%
55	Düzce	1,231	412,344	413,585	0,30%
56	Amasya	1,117	342,378	343,495	0,33%
57	Karabük	1,087	250,478	251,565	0,43%
58	Kastamonu	1,080	381,991	383,071	0,28%
59	Bitlis	1,042	359,808	360,850	0,29%
60	Bilecik	908	228,495	229,403	0,40%
61	Karaman	798	262,791	263,509	0,30%
62	Erzurum	775	745,005	745,780	0,10%
63	Kırklareli	638	379,081	379,669	0,17%
64	Çankırı	535	199,981	200,516	0,27%
65	Edirne	476	421,247	421,723	0,11%
66	Zonguldak	385	586,802	587,387	0,10%
67	Ordu	377	770,711	771,088	0,05%
68	Giresun	317	455,622	456,238	0,07%
69	Bartın	244	206,715	206,959	0,12%
70	Sinop	201	226,957	227,158	0,05%
71	Kars	159	272,300	272,459	0,06%
72	Rize	131	346,797	348,108	0,30%
73	Ardahan	99	91,354	91,453	0,11%
74	Gümüşhane	96	142,617	142,713	0,07%
75	Bayburt	81	83,676	83,707	0,10%
76	Iğdır	78	206,857	206,935	0,04%
77	Artvin	65	169,200	169,345	0,08%
78	Tunceli	42	86,612	86,654	0,05%
79	Ağrı	23	499,801	500,624	0,16%
80	Erzincan	12	241,238	241,351	0,01%
81	Hakkari	7	282,191	282,198	0,00%

As of February 27, 2025, according to the provincial distribution of SuTP, İstanbul has the largest Syrian population with 491,026 people. This figure corresponds to approximately 15.3% of the total 3,201,876 SuTP in Türkiye. The ratio of the Syrian population in İstanbul to the total provincial population is 3.90%, indicating that migration mobility has a significant impact on the demographic structure of the city. İstanbul's employment opportunities in the industrial, commercial and service sectors in İstanbul make it an attractive center for Syrian migrants. Other cities with the largest Syrian population in Türkiye are Gaziantep (394,900), Şanlıurfa (242,021) and Adana (207,333). However, İstanbul far surpasses these cities in terms of total Syrian population (Table 45).

In this section, official statistics and secondary data analysis on the demographic, socio-economic and sectoral structure of İstanbul are reviewed. In order to support these findings, the results of the survey conducted in the next section will be analyzed.

2.5. Highlighted Findings in the Analysis of Secondary Data

Population and Demographic Structure

- İstanbul's population fell to 15,655,924 by 2023, a 1.6% decrease compared to the previous year. This decline is attributed to the high cost of living, earthquake risk and housing prices encouraging migration.
- Population density is much higher than Türkiye's average; the number of people per km² in İstanbul is 3,013.
- The median age is 34, which is the same as the value for Türkiye as a whole. The median age of women (34.7) is slightly higher than that of men.

Labor Force and Employment Data

- In 2023, İstanbul's unemployment rate was 8.9%, surpassing the 9.4% rate in Türkiye as a whole.
- İstanbul's labor force participation rate is 57%, which is higher than the average for Türkiye (53.3%).
- According to ISKUR data, there are 650,026 vacancies in İstanbul and the highest demand is concentrated in manufacturing, retail trade and service sectors.

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Migration Movements and Social Security

- In 2023, İstanbul became a net migrant city, with 581,330 people migrating from İstanbul and 412,707 people moving to the city. The net migration rate is calculated as -10.7%.
- In İstanbul, 15,620,077 people are covered by social security and the number of active insured is 6,068,025. The majority of these are private sector employees.

Dynamics of the Labor Market

- According to the job placement data, a total of 255,936 people were employed by ISKUR in İstanbul, of which 58% were male and 42% were female.
- The largest group of those entitled to unemployment benefits is the 25-34 age group, and it is observed that young people in this age group have the most difficulty in finding a job.

CHAPTER III

CHAPTER III

3. SURVEY ANALYSIS AND FINDINGS - ANATOLIAN SIDE

3.1. Demographic Data

This research was conducted with a total of 62 participants on the Anatolian side of İstanbul. The gender distribution of the participants is almost equal, with women (48.4%) and men (41.9%) represented in similar proportions. The majority of the participants were between the ages of 25-44, with this age group making up 75.8% of the total. In terms of educational attainment, 50% of the participants have a bachelor's degree and 41.9% have a master's degree, indicating that the sample consists of highly educated individuals. The majority of the respondents (54.8%) work in the Red Crescent, followed by 30.6% working in public institutions and organizations. Civil society organizations and other institutions are less represented. In terms of position, 46.8% of the respondents are experts and 11.3% are managers (Table 46). This indicates that the respondents are generally middle-aged, highly educated and working in the public/civil society sector. In addition, it is seen that most of the participants have been working in their organizations for 2-5 years, indicating an experienced sample.

Table 46. Demographic Analysis of İstanbul Province (Anatolian Side) Participants

Demographic Information	Indicators	n	%
Gender	Female	34	60,7
	Male	30	48,4
Age	18-24	26	41,9
	25-34	6	9,7
	35-44	21	33,9
	45-54	26	41,9
Education Status	Associate Degree	6	9,7
	Bachelor's Degree	1	1,6
	Master's Degree	31	50,0
	PhD	26	41,9
	PhD graduate	1	1,6

Table 46. Demographic Analysis of İstanbul Province (Anatolian Side) Participants

Demographic Information	Indicators	n	%
Years of Employment in the Institution*	2-5 years	28	45,2
	6-10 years	16	25,8
	11-15 years	11	17,7
	16 years and above	4	6,5
Type of Institution Employed	Public Institutions and Organizations	19	30,6
	Civil society organizations	4	6,5
	Private Sector Representation	1	1,6
	Career Center	1	1,6
	Türk Kızılay	34	54,8
Position	Administrator	7	11,3
	Expert	29	46,8
	Counselor	4	6,5
	Other	6	9,7

Note= n=62, 6 participants left their gender blank; 3 participants left their age, education level, institution, and duration of employment blank; 16 participants left their current position blank.

3.2. Labor Market Analysis

In order to understand the observations and opinions of the participants on the labor market on the İstanbul-Anatolian side, they were asked to respond to the questions **"How do you evaluate the current situation of the labor market in your province?"** and **"What is your level of agreement with the reasons for the decrease or stagnation of employment in your province?"**

Regarding the labor market, the majority of respondents in İstanbul (Anatolian Side) (46.8%) indicate that the demand for skilled labor in certain sectors has increased, while a significant number (37.1%) think that job opportunities have decreased due to economic difficulties (Table 47). A small number of respondents (3.2%) stated that there is a transition period in which new job demands are emerging and some sectors are in the process of development. These results show that the demand for skilled labor in the labor market has increased in certain sectors, but economic difficulties have also negatively affected job opportunities.

Figure 3. Ratios of İstanbul (Anatolian Side) Respondents by Education Level (A), Organization (B) and Position (C)

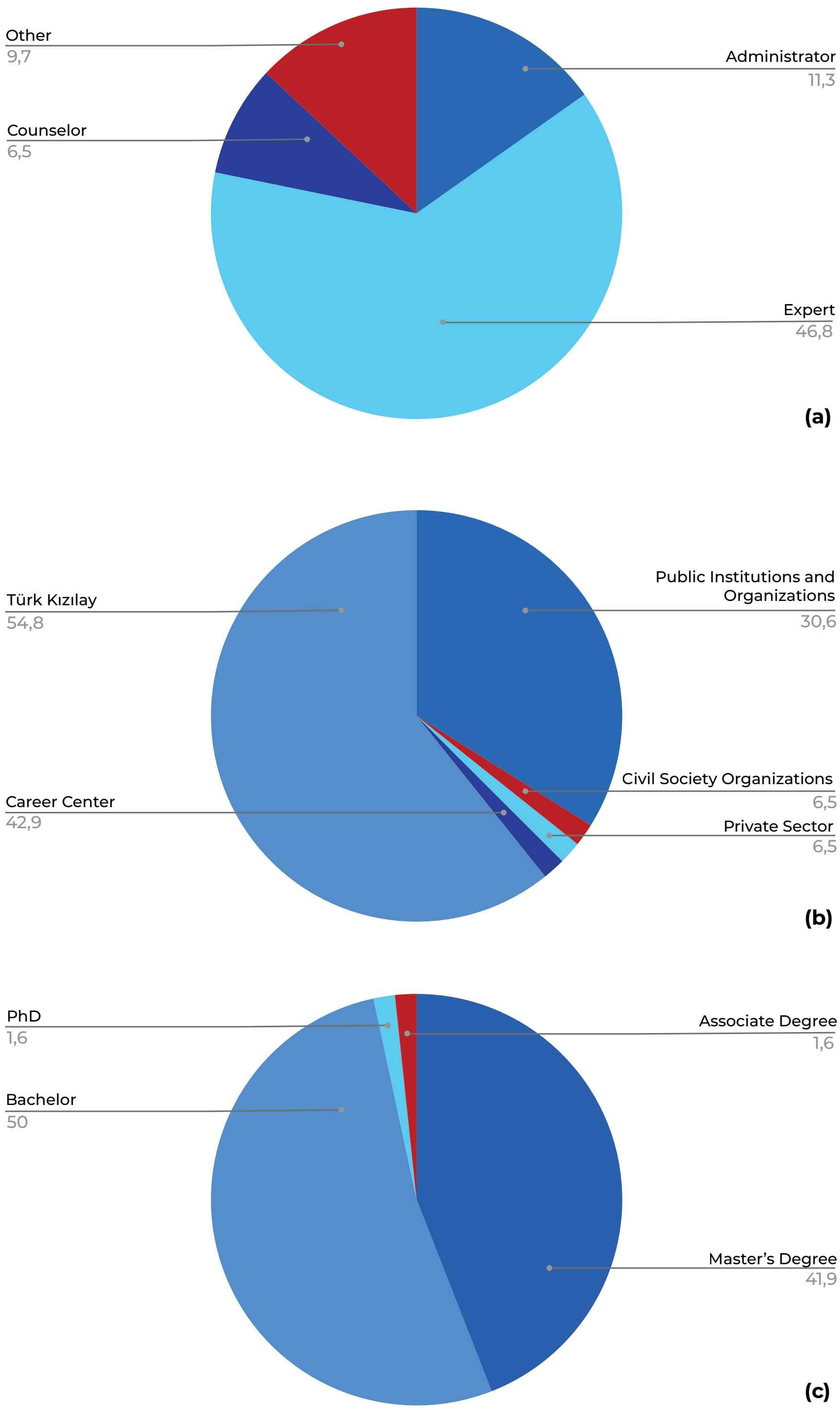

Table 47. Labor Market Overview - İstanbul (Anatolian Side)

Question: How do you observe the current situation of the labor market in your province?		
Evaluations	**n**	**%**
There is a balance between job opportunities and job seekers	-	-
Skilled labor in specific sectors demand has increased.	29	46,8
Work due to economic difficulities, opportunities are diminished	23	37,1
There is a transition period in which new job demands are emerging and some sectors are in the process of development.	2	3,2
I don't have sufficient information to evaluate	8	12,9

Respondents cited declining vocational training/capacity building opportunities (40.3% strongly agree) and aging infrastructure or lack of innovation in the sector (51.6% agree) as the most important reasons for declining or stagnating employment (Table 48). In addition, an aging workforce that is not being replaced (24.2% strongly agree) and high demand that exceeds local talent supply (33.9% agree) are also seen as important reasons for stagnation. In particular, increasing vocational training and capacity building opportunities, modernizing infrastructure, and training a young workforce stand out as critical steps towards solving employment problems.

Table 48. Reasons for Decline or Stagnation in Employment in İstanbul (Anatolian Side)

Question: To what extent do you agree that the following are reasons for the decline or stagnation of employment in your province?

Reasons	Strongly Disagree		Disagree		Moderately Agree		Agree		Strongly Agree	
Statements*	n	%	n	%	n	%	n	%	n	%
Technological developments leading to automation	2	3,2	24	38,7	21	33,9	12	19,4	3	4,8
Shifting or outsourcing of work to other regions or countries	6	9,7	10	16,1	27	43,5	11	17,7	5	8,1
Decline in market demand for goods or services	5	8,1	17	27,4	14	22,6	21	33,9	2	3,2
Transition to greener and more sustainable industries	10	16,1	19	30,6	17	27,4	12	19,4	4	6,5
Aging infrastructure or lack of innovation in the sector	1	1,6	9	14,5	8	12,9	32	51,6	11	17,7
Aging and unreplaced labor force	1	1,6	17	27,4	18	29,0	7	11,3	15	24,2
High demand exceeding local talent supply	1	1,6	12	19,4	23	37,1	21	33,9	5	8,1
Reduced opportunities for vocational training/capacity building	-	-	11	17,7	5	8,1	21	33,9	25	40,3

Note= * 3 participants did not respond to items 2 and 3, 1 participant did not respond to item 5 and 4 participants did not respond to item 6.

3.3. Labor Demand and Qualified Personnel Shortage

In order to understand the observations and opinions of the respondents in İstanbul (Anatolia) on the labor demand and skilled labor shortage in İstanbul, asked them **"How would you rate the importance of the following factors affecting the demand for labor in high-demand sectors in your province?", "Which sectors in your province are currently experiencing a shortage of skilled labor supply?", "To what extent do you agree that the following factors are the causes of the skilled labor shortage in your province?", "To what extent do you think there is a skills and talent gap in the following sectors in your province?", and "How effective do you think the following initiatives will be in closing the skills and talent gap in your province?".**

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Respondents think that factors such as increased demand for skilled professionals, incentives and regional economic growth are the most influential factors affecting labor demand in high-demand sectors (Table 49). In addition, urbanization and infrastructure projects and changes in consumer behavior also stand out as factors that significantly affect labor demand. These results indicate that in order to increase labor demand, it is necessary to train qualified labor force, support regional economic growth, develop policies that will adapt to consumer needs and increase incentives. Moreover, urbanization and infrastructure investments also play an important role in stimulating the labor market.

Table 49. Importance of Factors Affecting Labor Demand in High Demand Sectors in İstanbul (Anatolian Side)

Question: How would you rate the importance of the following factors affecting labor demand in sectors with high demand in your province?

Factors	Very Insignificant		Unimportant		Moderately Important		Important		Very Important	
Statements*	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Regional economic growth	-	-	2	3,2	13	21,0	22	35,5	25	40,3
Increased technological integration in enterprises	-	-	3	4,8	27	43,5	22	35,5	7	11,3
Creation of new sectors that increase labor demand	-	-	4	6,5	7	11,3	32	51,6	16	25,8
Incentives	3	4,8	2	3,2	10	16,1	20	32,3	26	41,9
Growing demand for skilled professionals	-	-	-	-	4	6,5	34	54,8	23	37,1
Urbanization and infrastructure projects	-	-	3	4,8	11	17,7	25	40,3	22	35,5
Changes in consumer behavior or market needs	1	1,6	-	-	6	9,7	35	56,5	16	25,8

Note= * Items 2 and 3 were not answered by 3 participants each, items 4, 5 and 6 by 1 participant each, and item 7 by 1 participant.

Respondents indicated that there is a shortage of qualified labor in the manufacturing (34 votes), professional, scientific and technical activities (31 votes) and education (31 votes) sectors in the Anatolian Side of İstanbul. Construction (26 signs) and culture, arts and entertainment (24 votes) sectors are also among the sectors with significant shortages of skilled labor. These results show that the need for skilled labor is at the forefront, especially in technical and education-oriented sectors (Table 50).

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Table 50. İstanbul (Anatolian Side) Sectors with Shortage of Skilled Labor Supply

Question: In which sectors is there currently a shortage of qualified labor supply in your province?	
Sectors	**Number of Markings**
[1] Agriculture, Forestry and Fisheries	23
[2] Mining and Quarrying.	13
[3] Manufacturing	34
[4] Electricity, Gas, Steam and Air Conditioning Production and Distribution.	12
[5] Water Supply; Sewerage, Waste Management and Improvement Activities.	10
[6] Construction	26
[7] Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles.	14
[8] Transportation and Warehousing	15
[9] Accommodation and Food Service Activities	22
[10] Information and Communication	19
[11] Finance and Insurance Activities	13
[12] Professional, Scientific and Technical Activities	31
[13] Administrative and Support Service Activities	13
[14] Education	31
[15] Culture, Arts, Entertainment, Leisure and Sports	24
[16] Other Service Activities (e.g: Repair of computers, communication equipment, household goods, clothing, hairdressers, barbershops)	20
Note = Respondents marked more than 1 in the sectors where there is a shortage of qualified labor supply	

Respondents cited low wages or poor working conditions (69.4% strongly agree) and migration of skilled labor to other regions or countries (40.3% strongly agree) as the most important reasons for the shortage of skilled labor (Table 51). In addition, the lack of relevant education or training programs (40.3% agree, 32.3% strongly agree) is also seen as an important reason. These results indicate that wages and working conditions need to be improved, migration needs to be prevented and training programs need to be strengthened in order to solve the qualified labor shortage.

Table 51. Reasons for the Shortage of Skilled Labor Force in İstanbul (Anatolian Side)

Question: To what extent do you agree that the following factors are the causes of the skilled labor shortage in your province?

Reasons	Strongly Disagree		Disagree		Moderately Agree		Agree		Strongly Agree	
Factors	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Lack of relevant education or training programs	2	3,2	1	1,6	14	22,6	25	40,3	20	32,3
Migration of skilled labor to other regions or countries	-	-	8	12,9	3	4,8	26	41,9	25	40,3
Limited awareness of job opportunities	1	1,6	10	16,1	19	30,6	23	37,1	9	14,5
Rapid technological advances	1	1,6	15	24,2	31	50,0	12	19,4	3	4,8
Low wages or poor working conditions	-	-	-	-	4	6,5	14	22,6	43	69,4
Aging and unreplaced labor force	1	1,6	10	16,1	12	19,4	8	12,9	31	50,0
High demand exceeding local talent supply	1	1.6	9	14,5	30	48,4	16	25,8	6	9,7

Respondents indicated that the highest skills and talent gaps in the Anatolian Side of İstanbul are in the manufacturing and electricity, gas, steam and air conditioning sectors (Table 52). Water supply, sewerage, waste management and education sectors are also among the areas with significant skills gaps. These results show that the need for qualified labor force is at the forefront, especially in technical and infrastructure-oriented sectors.

Table 52. Sectoral Skills and Talent Gaps in İstanbul (Anatolian Side)

Question: To what extent do you think there is a skill and talent gap in the following sectors in your province?								
Sectors	**None**		**Very Few**		**Moderate**		**Too Much**	
Factors	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
[1] Agriculture, Forestry and Fisheries	2	3,2	21	33,9	21	33,9	18	29,0
[2] Mining and Quarrying	3	4,8	9	14,5	32	51,6	18	29,0
[3] Manufacturing	2	3,2	8	12,9	24	38,7	28	45,2
[4] Electricity, Gas, Steam and Air Conditioning Production and Distribution	2	3,2	8	12,9	32	51,6	20	32,3
[5] Water Supply; Sewerage, Waste Management and Improvement Activities	2	3,2	12	19,4	27	43,6	21	33,9
[6] Construction	2	3,2	17	27,4	31	50,0	12	19,4
[7] Wholesale and Retail Trade; of Motor Vehicles and Motorcycles	3	4,8	23	37,1	31	50,0	5	8,1
[8] Transportation and Warehousing	4	6,5	43	69,3	9	14,5	6	9,7
[9] Accommodation and Food Service	6	9,7	18	29,1	30	48,4	8	12,9
[10] Information and Communication	2	3,2	10	16,1	24	38,7	9	14,5
[11] Finance and Insurance Activities	3	4,8	22	35,5	25	40,3	12	19,4
[12] Professional, Scientific and Technical Activities	2	3,2	19	30,6	31	50,0	10	16,1
[13] Administrative and Support Service Activities	3	4,8	25	40,3	20	32,3	14	22,6
[14] Education	2	3,2	13	21,0	28	45,2	19	30,6
[15] Culture, Arts, Entertainment, Leisure and Sports	2	3,2	26	41,9	23	37,1	11	17,7
[16] Other Service Activities (e.g: Repair of computers, communication equipment, household goods, clothing, hairdressers, barbershops)	-	-	11	17,7	38	61,3	13	21,0
Note= *Missing data analysis was performed.								

Respondents consider enhanced career counseling and guidance in schools to be the most effective initiative in closing the skills and talent gap (41.9% effective, 35.5% very effective) (Table 53). However, this initiative was also rated as very ineffective by 35.5%, indicating that opinions are highly polarized on this issue. Collaboration between businesses and educational institutions (35.5% effective) and sector-specific training programs (24.2% effective) are also considered important, but attitudes towards these initiatives are more balanced. Overall, while there is uncertainty about career counseling, education-business partnerships and sector-specific training programs are seen as having a more consistent impact on closing the skills gap.

Table 53. Impact of Enterprises on Closing the Talent and Skills Gap in İstanbul (Anatolian Side)

Question: How effective do you think the following initiatives will be in closing the skills and talent gap in your province?										
Initiatives	**Highly Effective**		**Ineffective**		**Moderately Effective**		**Effective**		**Very Effective**	
Factors	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Sector-specific training programs	6	9,7	8	12,9	30	48,4	15	24,2	6	9,7
Cooperation between businesses and educational institutions	-	-	8	12,9	29	46,8	22	35,5	-	-
Enhanced career counseling and guidance in schools	22	35,5	5	8,1	22	35,5	26	41,9	22	35,5
Note= 3 participants did not respond to these types of interventions.										

3.4. Migrant Workers and Employment of People with Disabilities

In order to understand the observations and opinions of the participants in İstanbul (Anatolian side) on the employment of migrant workers and people with disabilities, asked them to share their views on the following questions: **"What is your general perception of the employment of migrant workers in your institution or province?", "To what extent do the following factors affect the decisions regarding the employment of migrant workers in your province?", "How do you assess the impact of employing migrant workers on the following factors in the institutions in your province?", "To what extent do the institutions in your province experience the following challenges in the**

employment of migrant workers?", "What is your general perception of the employment of people with disabilities in organizations in your province?", "How do you assess the impact of employees with disabilities on the following aspects of organizations in your province?", "In your opinion, which stage of the recruitment process poses the greatest challenge for organizations when hiring migrant workers?" and "What is your view on the existence of specific policies or strategies to address the challenges faced by organizations in your province in hiring migrant workers?".

The majority of the participants (48.4%) stated that the general perception of migrant labor employment on the Anatolian side of İstanbul is negative (Table 54). 16.1% stated that this perception is very negative. On the other hand, 16.1% had a positive perception and 19.4% had neither a positive nor a negative perception. These results show that the general tendency towards migrant labor employment is negative, but there are also different opinions on this issue.

Table 54. General Perception of Migrant Labor Employment in İstanbul (Anatolian Side)

Question: What is your general perception of migrant labor employment in your organization or province?		
Answers	**n**	**%**
Strongly Positive	-	-
Positive	10	16,1
Neither Positive Nor Negative	12	19,4
Negative	30	48,4
Strongly Negative	10	16,1
Note= Missing data analysis was performed.		

Respondents indicated that factors such as lower labor costs (27.4% influential, 37.1% very influential) and ease of filling vacancies quickly (54.8% influential, 14.5% very influential) most influenced their decision to hire migrant workers (Table 55). Concerns about cultural or language differences (29.0% influential, 19.4% very influential) also stand out as an

important factor. These results suggest that cost and quick employment are prioritized in the employment of migrant workers, but cultural adaptation issues are also taken into account.

Table 55. Factors Affecting Decisions on Employment of Migrant Workers in İstanbul (Anatolian Side)

Question: To what extent do the following factors influence decisions regarding the employment of migrant workers in your province?

Labor Employment Decisions	Not Effective at All		Not Effective		Moderately Effective		Effective		Very Effective	
Factors*	n	%	n	%	n	%	n	%	n	%
Availability of Skills not Available Locally	5	8,1	12	19,4	27	43,5	14	22,6	1	1,6
Lower Labor Costs	-	-	1	1,6	18	29,0	17	27,4	23	37,1
High Work Ethics and Reliability	8	12,9	18	29,0	18	29,0	10	16,1	5	8,1
Flexibility in Work Schedules	1	1,6	23	37,1	14	22,6	13	21,0	8	12,9
Diversity and Inclusion Initiatives	6	9,7	10	16,1	27	43,5	12	19,4	4	6,5
Ease of Filling Vacancies Quickly	-	-	2	3,2	14	22,6	34	54,8	9	14,5
Concerns About Cultural or Language Differences	-	-	13	21,0	16	25,8	18	29,0	12	19,4

Note= *3 participants did not respond to each of the above factors.

Respondents generally perceive a neutral impact of employing migrant workers on team dynamics and cooperation (51.6% neither positive nor negative) and innovation and creativity (54.8% neither positive nor negative) in organizations (Table 56). A more positive impact is seen on productivity levels (30.6% positive) and workplace culture (25.8% positive). However, negative impacts on workplace culture (30.6% negative) and team dynamics (24.2% negative) are also present to some extent. These results suggest that the employment of migrant workers can have both positive and negative impacts on organizations, but overall a neutral perception prevails.

Table 56. The Impact of Employing Migrant Workers on Institutions in İstanbul (Anatolian Side)

Question: How do you assess the impact of migrant labor on the following factors in institutions in your province?

	Very Negative		Negative		Neutral		Positive		Very Positive	
Factors	n	%	n	%	n	%	n	%	n	%
Team Dynamics and Collaboration	-	-	15	24,2	32	51,6	11	17,7	1	1,6
Productivity Levels	-	-	4	6,5	33	53,2	19	30,6	3	4,8
Innovation and Creativity	-	-	9	14,5	34	54,8	15	24,2	1	1,6
Workplace Culture	-	-	19	30,6	24	38,7	16	25,8	-	-

Note=* 3 participants did not respond to each of the above factors.

Respondents indicated that legal compliance, language/communication barriers and cultural adaptation are the most common barriers to the employment of migrant workers (Table 57). Integration of local staff and recruitment/training costs also stand out as significant barriers. These results suggest that the main challenges to migrant labor employment are legal, communicative and cultural.

Table 57. Challenges Faced by Institutions Employing Migrant Workers in İstanbul (Anatolian Side)

Question: Assess the extent to which the following challenges in the employment of migrant workers are experienced by the organizations in your province?

	No Difficulties at All		Very Few Difficulties		Experiencing Moderate Difficulty		Experiencing too Much Difficulty		It's a Complete Challenge	
Factors	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Language or communication barriers	-	-	2	3,2	27	43,5	22	35,5	8	12,9
Cultural adaptation problems*	-	-	13	21,0	10	16,1	30	48,4	6	9,7
Legal or regulatory compliance	1	1,6	1	1,6	12	19,4	31	50,0	14	22,6
Costs related to recruitment or training*	2	3,2	6	9,7	22	35,5	18	29,0	11	17,7
Workplace integration with local staff*	-	-	2	3,2	26	41,9	17	27,4	14	22,6
Ease of filling vacancies quickly	8	12,9	10	16,1	17	27,4	9	14,5	15	24,2
Concerns about cultural or language differences	1	1,6	6	9,7	20	32,3	16	25,8	16	25,8

Note=* 3 participants did not respond to each of the above factors.

Respondents consider **"legal legislation"** to be the biggest challenge in the recruitment process of migrant workers (Table 58).

Table 58. Challenges in The Recruitment Process of Migrant Workers

Question: Which stage of the recruitment process do you think poses the biggest challenge for organizations when hiring migrant workers?

Answers	n	%
Identify and Attract Qualified Candidates	2	3,2
Legislation	36	58,1
Recruitment and Training	10	16,1
Integrating Them into Workplace Culture	11	17,7

Note= 3 participants did not answer this question.

According to participant views, institutions in the province of İstanbul (Anatolian side) generally have no or limited policies towards migrant worker employment (Table 59). These findings suggest that most organizations do not have a systematic approach to migrant worker employment.

Table 59. Policies and Strategies for the Recruitment Process of Migrant Workers

Question: What is your view on whether organizations in your province have specific policies or strategies to address challenges in recruiting migrant workers?		
Answers	**n**	**%**
Yes, they have comprehensive policies.	1	1,6
Yes, but the policies are quite limited.	27	43,5
No, they don't have a specific policy.	31	50,0
Note = 3 participants did not answer this question.		

The majority of the participants (30.6% very positive, 24.2% positive) stated that the general perception towards the employment of people with disabilities in institutions on the Anatolian side of İstanbul is positive (Table 60). However, 17.7% stated that they had a negative perception and 8.1% stated that they had a very negative perception. 8.1% remained neutral on this issue. These results show that the general tendency towards employment of the disabled is positive, but negative attitudes persist in some institutions.

Table 60. General Perception on Employment of People with Disabilities in Institutions in İstanbul (Anatolian Side)

Question: What is your general perception regarding the employment of people with disabilities in institutions in your province?		
Answers	**n**	**%**
Very Positive	19	30,6
Positive	15	24,2
Neither Positive nor Negative	5	8,1
Negative	11	17,7
Very Negative	5	8,1
Note= 7 participants did not answer this question.		

Overall, respondents tend to view the presence of employees with disabilities as having a neutral effect on organizational aspects such as team dynamics, collaboration, productivity, innovation, creativity, and workplace culture (Table 61). However, positive and very positive impacts are also seen to a certain extent (21.0-25.8% positive, 9.7-12.9% very positive). Negative effects remained at very low rates (6.5-14.5%). These results show that employees with disabilities generally have a neutral or slightly positive impact on organizational performance.

Table 61. İstanbul (Anatolian Side) the Impact of Disabled Employees on the Performance of Organizations

Question: How do you assess the impact of employees with disabilities on the following aspects of organizations in your province?										
Organisation Aspects	**Very Negative**		**Negative**		**Neutral**		**Positive**		**Very Positive**	
Factors	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Team Dynamics and Collaboration	-	-	4	6,5	36	58,1	13	21,0	6	9,7
Productivity Levels	1	1,6	9	14,5	31	50,0	12	19,4	6	9,7
Innovation and Creativity	-	-	4	6,5	27	43,5	16	25,8	8	12,9
Workplace Culture	-	-	8	12,9	31	50,0	13	21,0	7	11,3
Note= 3 participants did not respond to items 1, 2 and 4, and 7 participants did not respond to item 3.										

3.5. Women Labor

In order to understand the observations and views of participants in İstanbul (Anatolian side) on the female workforce, they were asked to respond to the questions **"How prevalent do you believe the following skills are in the female workforce in your province?", "To what extent do you think the following factors limit the representation of women in certain occupations in your province?", and "How critical do you think the following actions are to better support the female workforce and utilize their skills in various occupations?".**

Respondents indicated that the most common skills in the female workforce were organizational and time management and communication skills (Table 62). Adaptability and multitasking and problem solving were also considered important, while leadership and technical skills were found to be less common. These results suggest that women are strong in organization and communication, but have room for improvement in leadership and technical areas.

Table 62. Female Labor Force Skills in İstanbul (Anatolian Side)

Question: To what extent do you think the following skills are present among women in the labor market in your province?										
Actions	**Strongly Disagree**		**Disagree**		**Moderately Agree**		**Agree**		**Strongly Agree**	
Skills	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Leadership and decision making*	3	4,8	12	19,4	12	19,4	7	11,3	4	6,5
Communication and interpersonal skills*	2	3,2	7	11,3	7	11,3	26	41,9	17	27,4
Organization and time management*	4	6,5	3	4,8	8	12,9	36	58,1	8	12,9
Creativity and innovation*	1	1,6	2	3,2	25	40,3	22	35,5	9	14,5
Technical skills (e.g. coding, data analysis) *	1	1,6	13	21,0	20	32,3	23	37,1	2	3,2
Problem solving and critical thinking*	6	9,7	-	-	24	38,7	27	43,5	2	3,2
Adaptability and multitasking*	-	-	3	4,8	10	16,1	38	61,3	8	12,9
Note= *3 participants did not answer.										

Respondents indicated that gender discrimination in recruitment and promotion and male-dominated sectors are the most important factors limiting the female workforce (Table 63). Lack of work-life balance policies and cultural/societal expectations are also seen as important barriers. Limited access to education was found to be less effective. These results indicate that gender discrimination and male-dominated sectors are the main factors preventing women's participation in the labor force

Table 63. Factors Limiting the Female Labor Force in İstanbul (Anatolian Side)

Question: To what extent do you think the following factors limit the representation of women in certain occupations in your province?										
Actions	**Strongly Disagree**		**Disagree**		**Moderately Agree**		**Agree**		**Strongly Agree**	
Factors	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Cultural or societal expec-tations	-	-	13	21,0	22	35,5	17	27,4	7	11,3
Limited access to education and training in certain areas	6	9,7	16	25,8	16	25,8	15	24,2	6	9,7
Gender discrimination in recruitment and promotion	1	1,6	6	9,7	14	22,6	6	9,7	29	46,8
Lack of work-life balance policies	1	1,6	7	11,3	18	29,0	14	22,6	16	25,8
Male-dominated sectors	1	1,6	7	11,3	7	11,3	20	32,3	21	33,9
Note= 3 participants did not respond to items 1 and 2; 6 participants did not respond to items 3, 4 and 5.										

Respondents indicated that the most critical actions to support the female workforce are flexible working hours and childcare support, and increasing access to technical and vocational training programs. These results suggest that flexible working conditions, training opportunities and leadership opportunities are crucial to increase women's labor force participation (Table 64).

Table 64. Factors Limiting the Female Labor Force in İstanbul (Anatolian Side)

Question: How critical do you think the following actions are to better support the female workforce and utilize their skills in various occupations?										
Actions	**Not Critical at All**		**Not Critical**		**Moderately Critical**		**Critical**		**Very Critical**	
Factors	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Implement gender-neutral recruitment practices	6	9,7	2	3,2	16	25,8	7	11,3	28	45,2
Offer flexible working hours and childcare support	-	-	1	1,6	4	6,5	14	22,6	40	64,5
Increase access to technical and vocational training programs	1	1,6	2	3,2	7	11,3	18	29,0	31	50,0
Promoting women into leadership roles	6	9,7	1	1,6	4	6,5	17	27,4	31	50,0
Note= 3 participants did not respond to each factor above.										

3.6. Technological Change and its Effects on Labor Force

In order to understand the observations and opinions of the respondents on the Anatolian side of İstanbul regarding technological change and its impact on the labor force, we asked them **"How do you think new technologies (e.g. artificial intelligence, automation, green technologies) will affect the labor market in your province", "What types of occupations or areas of expertise do you believe will be most in demand in the next 10 years?", "Please rate the likelihood that each of the following occupations will be in high demand in the future due to technological developments.", "What are the biggest challenges faced by the labor market in adapting to new technological and industrial developments?", "Which skills do you think are the most critical for workers in the future labor market?", "Do you believe that the private sector in your province is investing enough to prepare the workforce for technological changes?", "Which of the following group(s) do you think would benefit the most from technological developments in**

the labor market?", "Which group do you think has the highest risk of job loss due to technological developments?", "Which measures should be prioritized to address the impact of technology on the labor market?", and "How ready is your province to respond to changes in the labor market caused by new technologies?.

The majority of respondents (54.9%) think that new technologies (such as artificial intelligence, automation, green technologies) will have a neutral impact on the labor market in the Anatolian Side of İstanbul. 21.0% expect a somewhat positive impact and 14.5% expect a very positive impact, while 6.5% expect a somewhat negative impact and 3.2% expect a very negative impact. These results indicate that new technologies will have a largely neutral or slightly positive impact on the labor market (Table 65).

Table 65. Impact of New Technologies on the Labor Market in İstanbul (Anatolian Side)

Question: How do you think new technologies (e.g. artificial intelligence, automation, green technologies) will affect the labor market in your province?		
Answers	**n**	**%**
Strongly Positive	9	14,5
Slightly Positive	13	21,0
Neither Positive nor Negative	34	54,9
Slightly Negative	4	6,5
Strongly Negative	2	3,2
Note= Missing data analysis was performed.		

Respondents predicted that cyber security specialists and artificial intelligence and machine learning specialists will be the most in demand occupations in the next 10 years (Table 66). Software developers and engineers, data scientists and analysts, robotics engineers and automation specialists, and information security specialists are also in high demand. These results suggest that the fields of technology, digitalization and cybersecurity will be prominent in the labor market in the future.

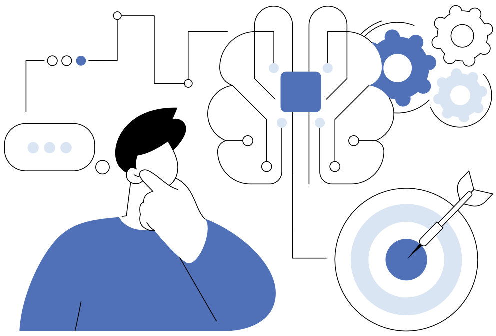

Table 66. Occupations or Specialties that will be in Highest Demand in 10 Years

Question: What professions or specialties do you believe will be most in demand in the next 10 years?	
Profession or Specialization	**Number of markings**
[1] E-commerce and supply chain expert	25
[2] Animation	8
[3] R&D	14
[4] Artificial Intelligence and Machine Learning Experts	40
[5] Data Scientists and Data Analysts .	31
[6] Cyber Security	41
[7] Renewable Energy Technicians (e.g. solar panel installers, wind turbine technicians)	18
[8] Software Developers and Engineers	38
[9] Healthcare workers (e.g. nurses, doctors, medical technicians)	21
[10] Digital Marketing Experts	18
[11] Crafts (e.g. electricians, plumbers, welders)	15
[12] Educators and Trainers in Technology and Digital Skills	18
[13] Information Security Specialist	31
[14] Computer Games Programmer	14
[15] Cloud Computing Specialist	25
[16] Environmental Scientists and Sustainability Consultants	12
[17] Financial Analysts and FinTech Experts	21
[18] Robotics Engineers and Automation Specialists	31
[19] Social Workers and Counselors	11
[20] Digital Forensics Expert	18
[21] Social Media Specialist	20
[22] Micro Process Designer	13
[23] Enterprise Resource Planning Specialist	6
Note= Respondents marked more than 1 occupation and specialization	

Respondents predicted that cybersecurity specialists, artificial intelligence and machine learning specialists, and software developers and engineers will be most in demand in the future due to technological developments (Table 67). Data scientists and analysts, robotics engineers and automation specialists, and renewable energy technicians are also in high demand. These results suggest that areas such as technology, cyber security and renewable energy will be prominent in the labor market in the future.

Table 67. Demand Probability of Occupations According to Technological Developments

Question: Please assess the likelihood that each of the following occupations will be in high demand in the future due to technological developments.						
Sectors	**Low**		**Middle**		**High**	
Profession or Specialization	**n**	**%**	**n**	**%**	**n**	**%**
[1] E-commerce and supply chain expert	2	3,2	34	54,8	26	41,9
[2] Animation Programmer	2	3,2	46	74,2	14	22,6
[3] R&D Staff	6	9,7	27	43,5	29	46,8
[4] Artificial Intelligence and Machine Learning Experts	1	1,6	16	25,8	45	72,6
[5] Data Scientists and Data Analysts	1	1,6	24	38,7	37	59,7
[6] Cyber Security Experts	1	1,6	13	21,0	48	77,4
[7] Renewable Energy Technicians (e.g. solar panel installers, wind turbine technicians)	1	1,6	25	40,3	36	58,1
[8] Software Developers and Engineers	1	1,6	23	37,1	38	61,3
[9] Healthcare workers (e.g. nurses, doctors, medical technicians)	6	9,7	23	37,1	33	53,2
[10] Digital Marketing	1	1,6	37	59,6	24	38,7
[11] Crafts (e.g. electricians, plumbers, welders)	7	11,3	34	54,9	21	33,9
[12] Educators and Trainers in Technology and Digital Skills	1	1,6	38	61,3	23	37,1
[13] Information Security Specialist	1	1,6	29	46,8	32	51,6
[14] Computer Games Programmer	4	6,5	38	61,2	20	32,3
[15] Cloud Computing Specialist	6	9,7	36	58,1	20	32,3
[16] Environmental Scientists and Sustainability Consultants	7	11,3	32	51,6	23	37,1
[17] Financial Analysts and FinTech Experts	1	1,6	38	61,3	23	37,1
[18] Robotics Engineers and Automation Specialists	-	-	26	41,9	36	58,1
[19] Social Workers and Counselors	8	12,9	37	59,7	17	27,4
[20] Digital Forensics Expert	2	3,2	38	61,3	22	35,5
[21] Social Media Specialist	2	3,2	33	53,2	27	43,5
[22] Micro Process	1	1,6	41	66,2	20	32,3
[23] Enterprise Resource Planning Specialist	4	6,5	34	54,9	24	38,7
Note= Missing data analysis was performed.						

Respondents indicated that the biggest challenge for the labor market to adapt to new technological and industrial developments is the lack of infrastructure (Table 68). This is followed by the lack of qualified labor force and the high costs of adopting new technologies. These results suggest that infrastructure, skilled labor and costs are the biggest challenges in adapting to technological and industrial developments.

Table 68. Challenges in Adapting to New Technological and Industrial Developments

Question: What are the biggest challenges for the labor market to adapt to new technological and industrial developments?	
Answers	**Number of Marks**
Lack of skilled labor force	41
Limited access to education and training	21
Resistance to change in organizations	27
High costs of adopting new technologies	35
Lack of infrastructure	43
Note = Participants selected more than 1 option.	

Respondents indicated that digital literacy is the most critical skill for workers in the future labor market (Table 69). This is followed by technical expertise in emerging technologies and problem solving. As a result, technological expertise, problem solving and digital skills are seen as the most critical competencies in the future labor market.

Table 69. Most Critical Skills for Employees in the Future Labor Market

Question: Which skills do you think are the most critical for workers in the future labor market?	
Skills	**Number of Marks**
Digital Literacy	44
Problem Solving	38
Critical Thinking	30
Communication Skills	25
Technical Expertise in Emerging Technologies	40
Note = Participants selected more than 1 option.	

The vast majority of respondents (72.6%) think that the private sector in the Anatolian side of İstanbul does not invest enough to prepare its workforce for technological changes (Table 70). Only 22.6% stated that the private sector makes sufficient investments in this regard. These results indicate that the private sector needs to increase its investments in the labor force to adapt to technological changes.

Table 70. Investments of the Private Sector in İstanbul (Anatolian Side) in Preparing the Labor Force for Technological Changes

Question: Do you believe that the private sector in your province is investing enough to prepare its workforce for technological changes?		
Options	**n**	**%**
Yes	14	22,6
No	45	72,6
Note= 3 participants did not answer this question.		

Respondents believe that high-skilled workers (56.5%) will benefit the most from technological developments in the labor market (Table 71). Entrepreneurs (27.4%) are also seen as an important beneficiary group, while low-skilled workers (4.8%) and middle managers (1.6%) are considered to be less likely to benefit from these developments. These results suggest that technological developments will create opportunities especially for high-skilled workers and entrepreneurs

Table 71. Groups that can Benefit from Technological Developments

Question: Which of the following group(s) do you think would benefit the most from technological developments in the labor market?		
Options	**n**	**%**
Highly Skilled Workers	35	56,5
Low-Skilled Workers	3	4,8
Middle Managers	1	1,6
Entrepreneurs	17	27,4
Note= 6 participants did not answer this question.		

Respondents indicated that older workers (41.9%) are at the highest risk of job loss due to technological developments (Table 72). This is followed by low-skilled workers (33.9%) and mid-career professionals (14.5%). These results suggest that the risk of negative impacts of technological developments is particularly high for older workers and low-skilled workers.

Table 72. Highest Likelihood of Job Loss due to Technological Developments

Question: Which group do you think is most at risk of job loss due to technological advances?		
Options	**n**	**%**
Low-Skilled Workers	21	33,3
Mid-Career Professionals	9	14,5
Older Workers	26	41,9
Note= 6 participants did not answer this question.		

Respondents indicated that to address the impact of technology on the labor market, education and upskilling programs should be expanded first (Table 73). This is followed by providing incentives for sectors to adopt technology responsibly and strengthening collaboration between businesses and educational institutions. These results suggest that education, cooperation and incentives are critical to adapt to technological changes.

Table 73. Measures to Address the Impact of Technology on the Labor Market

Question: Which measures should be prioritized to address the impact of technology on the labor market?	
Options	**Number of Marks**
Expansion of training and upskilling programs	46
Providing incentives for sectors to adopt technology responsibly	42
Strengthening cooperation between businesses and educational institutions	41
State-led employment support programs	35
Promoting lifelong learning initiatives	37
Note = Participants selected more than 1 option.	

The majority of the respondents (61.3%) think that the Anatolian Side of İstanbul is partially prepared for labor market changes caused by new technologies (Table 74). 21.0% of the respondents were not prepared at all, while only 8.1% were very prepared. These results indicate that the labor market is not fully prepared for technological changes, but only partially prepared.

Table 74. Readiness for Changes in the Labor Market Caused by New Technologies

Question: How prepared is your province to respond to changes in the labor market caused by new technologies?		
Options	**n**	**%**
Very Prepared	5	8,1
A Little Prepared	38	61,3
Not Prepared at All	13	21,0
Note= 6 participants did not answer this question.		

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3.7. Sectoral and Regional Labor Dynamics

In order to understand the observations and views of respondents on the Anatolian side of İstanbul on sectoral and regional labor force dynamics, we asked them **"How do you assess the impact of the following factors on the development of sectors in your province?", "Do you believe that cultural factors (such as traditions, local preferences or heritage) are more influential than economic factors (such as investments, policy or market demand) in the prominence or decline of sectors in your region?", "Which sectors do you think are currently facing the most significant talent and skills shortages?", "Which sectors in your province do you think will have high labor demand?", and "Which sectors in your province are most likely to be affected by technological developments?".**

Respondents consider factors such as migration trends and government incentives to be most influential on the development of sectors (Table 75). Labor skills and infrastructure investments were also considered important, while consumer demand and natural resources were found to be less influential. These results suggest that migration and incentives play a key role in sectoral development.

Table 75. Factors that may affect the Development of Sectors in İstanbul (Anatolian Side)

Question: How do you assess the impact of the following factors on the development of sectors in your province?

	Strongly Disagree		Disagree		Moderately Agree		Agree		Strongly Agree	
Statements	n	%	n	%	n	%	n	%	n	%
Cultural heritage or traditions specific to the region	-	-	21	33,9	27	43,5	4	6,5	7	11,3
Availability or scarcity of natural resources	-	-	20	32,3	26	41,9	12	19,4	4	6,5
Government incentives	-	-	5	8,1	15	24,2	24	38,7	18	29,0
Changes in local or international consumer demand	-	-	3	4,8	34	54,8	13	21,0	12	19,4
Investing in regional infrastructure and development	-	-	5	8,1	19	30,6	20	32,3	15	24,2
Labor skills and education levels	-	-	1	1,6	26	41,9	16	25,8	19	30,6
Migration trends (e.g. rural-urban or international migration)	2	3,2	7	11,3	9	14,5	23	37,1	21	33,9

Note= *3 participants did not answer items 1 and 5.

The vast majority of respondents (69.4%) think that economic factors (such as investments, policy or market demand) are more influential than cultural factors (such as traditions, local preferences or heritage) in the prominence or decline of sectors on the Asian side of İstanbul (Table 76). 11.3% said that both factors are equally influential, while 4.8% were not sure. No respondent thinks that cultural factors are more influential. These results show that economic factors are more determinant in sectoral development than cultural factors.

Table 76. Cultural and Economic Factors in the Promotion or Decline of Sectors in the Region

Question: Do you believe that cultural factors (such as traditions, local preferences or heritage) are more influential than economic factors (such as investments, policy or market demand) in the promotion or decline of sectors in your region?		
Answers	**n**	**%**
Yes, cultural factors are more influential.	-	-
No, economic factors are more influential.	43	69,4
Both are equally effective.	7	11,3
I'm not sure.	3	4,8
Note= 9 participants did not answer this question.		

Respondents indicated that the sectors with the most significant skills shortages on the Anatolian side of İstanbul are professional, scientific and technical activities and manufacturing (Table 77). Mining and quarrying and Agriculture, forestry and fishing are also among the sectors with significant skills gaps. These results show that the shortage of qualified labor force is at the forefront, especially in sectors that require technical and specialized skills.

Table 77. İstanbul (Anatolian Side) Sectoral Talent and Skill Gap

Question: Which sectors do you think are currently facing the most significant talent and skills shortages? (You can choose more than one option.)	
Sectors	**Number of Markings**
[1] Agriculture, Forestry and Fisheries	22
[2] Mining and Quarrying	24
[3] Manufacturing	27
[4] Electricity, Gas, Steam and Air Conditioning Production and Distribution.	10
[5] Water Supply; Sewerage, Waste Management and Improvement Activities.	14
[6] Construction	11
[7] Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles.	7
[8] Transportation and Warehousing	1
[9] Accommodation and Food Service Activities	13
[10] Information and Communication	14
[11] Finance and Insurance Activities	5
[12] Professional, Scientific and Technical Activities	34
[13] Administrative and Support Service Activities	3
[14] Education	8
[15] Culture, Arts, Entertainment, Leisure and Sports	8
[16] Other Service Activities (e.g: Repair of computers, communication equipment, household goods, clothing, hairdressers, barbershops)	15
Note= Respondents marked more than 1 for the sectors with the most critical talent and skills gaps in İstanbul (Anatolian Side)	

Respondents stated that **manufacturing** and **other service activities** are the sectors that they think will have the highest labor demand in the Anatolian Side of İstanbul (Table 78). **Construction, information and communication, wholesale and retail trade** and **administrative and support service activities** are also among the sectors where high demand is expected. These results show that especially manufacturing, service and construction sectors will stand out in the labor market.

Table 78. Sectors with High Labor Demand in İstanbul (Anatolian Side)

Question: Which sectors in your province do you think will have high labor demand?	
Sectors	**Number of Markings**
[1] Agriculture, Forestry and Fisheries	14
[2] Mining and Quarrying	15
[3] Manufacturing	38
[4] Electricity, Gas, Steam and Air Conditioning Production and Distribution	12
[5] Water Supply; Sewerage, Waste Management and Improvement Activities	23
[6] Construction	27
[7] Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	25
[8] Transportation and Warehousing	19
[9] Accommodation and Food Service Activities	24
[10] Information and Communication	25
[11] Finance and Insurance Activities	22
[12] Professional, Scientific and Technical Activities	20
[13] Administrative and Support Service Activities	25
[14] Education	22
[15] Culture, Arts, Entertainment, Leisure and Sports	18
[16] Other Service Activities (e.g: Repair of computers, communication equipment, household goods, clothing, hairdressers, barbershops)	31
Note= Participants marked more than 1 sector	

Respondents think that water supply and waste management, information and communication and education sectors will be most affected by technological developments in İstanbul (Anatolian Side) (Table 79). Professional, scientific and technical activities and finance and insurance activities are also among the sectors that will be significantly affected. These results show that technological developments will have a transformative impact especially on the information, education and technical sectors.

Table 79. İstanbul (Anatolian Side) Sectors' Likelihood of Being Affected by Technological Developments

Question: Which sectors in your province are most likely to be affected by technological developments?	
Sectors	**Number of Markings**
[1] Agriculture, Forestry and Fisheries	23
[2] Mining and Quarrying	9
[3] Manufacturing	41
[4] Electricity, Gas, Steam and Air Conditioning Production and Distribution	18
[5] Water Supply; Sewerage, Waste Management and Improvement Activities	53
[6] Construction	4
[7] Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	8
[8] Transportation and Warehousing	16
[9] Accommodation and Food Service Activities	17
[10] Information and Communication	46
[11] Finance and Insurance Activities	37
[12] Professional, Scientific and Technical Activities	38
[13] Administrative and Support Service Activities	12
[14] Education	41
[15] Culture, Arts, Entertainment, Leisure and Sports	15
[16] Other Service Activities (e.g: Repair of computers, communication equipment, household goods, clothing, hairdressers, barbershops)	18
Note = Respondents marked more than 1 sector	

3.8. Links between Education and Employment

In order to understand the observations and views of the participants from the Anatolian side of İstanbul on the **"links between education and employment",** they were asked to respond to the questions **"To what extent are the existing education and training programs in your province effective in preparing workers for technological and industrial developments?" and "To what extent are the following roles of universities and career centers in your province important in helping people adapt to new technologies in the job market?"**

The participants think that the existing education and training programs in the Anatolian Side of İstanbul are mostly moderately effective in preparing employees for technological and industrial developments (32.3%) (Table 80). 25.8% of the participants stated that these programs are effective, 25.8% stated that they are not effective, and 11.3% stated that the programs are not effective at all. These results show that the existing training programs are insufficient to adapt to technological and industrial developments and that improvements are needed in this area.

Table 80. The Effect of Existing Education and Training Programs in İstanbul (Anatolian Side) on Preparing Employees for Technological and Industrial Developments

Question: To what extent are the current education and training programs in your province effective in preparing workers for technological and industrial developments?		
Answers	**n**	**%**
Strongly Effective	-	-
Effective	16	25,8
Moderately Effective	20	32,3
Not Effective	16	25,8
Not Effective at All	7	11,3
Note= 3 participants did not answer this question.		

Respondents think that the most important roles of universities and career centers in adapting to new technologies are internships, apprenticeships and industry partnerships, offering training programs in emerging technologies, and curriculum integration aligned with labor market demands (Table 81). These results suggest that education and business partnerships play a key role in technological adaptation.

> **The future of the labor market in İstanbul depends on how quickly the education system adapts to technological change. While current programmes are considered insufficient, the solution is seen in internships, apprenticeships, and education models integrated with industry.**

Table 81. The Role of Universities and Career Centers in People's Adaptation to New Technologies

Question: How important are the following roles of universities and career centers in your province in helping people adapt to new technologies in the job market?										
	It doesn't Matter at All		Not Important		Moderately Important		Important		Very Important	
Options	n	%	n	%	n	%	n	%	n	%
Offer training programs in emerging technologies (e.g. artificial intelligence, blockchain, cyber security)	2	3,2	10	16,1	7	11,3	21	33,9	16	25,8
Integrate hands-on, industry-oriented curricula to align with labor market demands.	2	3,2	10	16,1	9	14,5	21	33,9	14	22,6
Facilitate partnerships with industries for internships, apprenticeships and research opportunities	2	3,2	15	24,2	7	11,3	12	19,4	20	32,3
Providing career counseling to help students and job seekers understand evolving labor market trends	2	3,2	9	14,5	11	17,7	16	25,8	18	29,0
Promote lifelong learning and professional development through certificates and online courses	8	12,9	6	9,7	15	24,2	14	22,6	13	21,0
Creating specialized centers focused on innovation and entrepreneurship	8	12,9	9	14,5	13	21,0	22	35,5	4	6,5
Improving digital literacy and soft skills training (e.g. teamwork, problem solving	2	3,2	16	25,8	11	17,7	22	35,5	5	8,1
Conducting regular labor market analyses to identify skills and sectors in high demand	3	4,8	9	14,5	5	8,1	26	41,9	13	21,0
Note= 6 participants did not respond to all items above.										

3.9. Recruitment Processes and Challenges

In order to understand the observations and opinions of the participants from the Anatolian side of İstanbul regarding **"recruitment processes and challenges",** asked them to answer questions such as "**How often do you have difficulty in finding candidates with the required technical skills?", "What do you think is the biggest challenge faced by organizations in your province during recruitment?", "In which areas do you think there is a skills gap among job applicants in your province?", "How do you perceive the impact of economic**

conditions in your province on the recruitment process?", and "How important do you see diversity and inclusion in improving organizational performance?".

The majority of the participants (46.8%) stated that they often had difficulty in finding candidates with the necessary technical skills (Table 82). 40.3% stated that they sometimes had difficulty, while 3.2% stated that they always had difficulty. No respondent stated that they did not have difficulty in this regard. These results indicate that employers have significant difficulty in finding qualified candidates with technical skills and that there is a need for training and skills development programs in this area.

Table 82. Degree of Difficulty in Reaching Individuals with Technical Skills

Question: How often do you have difficulty finding candidates with the required technical skills?		
Options	**n**	**%**
We have no difficulty	-	-
We are rarely challenged	-	-
Sometimes we struggle	25	40,3
We often struggle	29	46,8
We always struggle	2	3,2
Note= 6 participants did not answer this question.		

Respondents indicated that the biggest challenge faced by organizations in their region during recruitment is the lack of qualified candidates (53.2%) (Table 83). As a result, the lack of a qualified workforce stands out as the biggest obstacle in recruitment processes. This suggests that training and skills development programs need to be increased.

Table 83. Difficulties Encountered During Recruitment

Question: What do you think is the biggest challenge faced by organizations in your province during recruitment?		
Options	**n**	**%**
[1] Recruitment Processes	8	12,9
[2] High Competition for Skilled Workers	15	24,2
[3] Lack of Qualified Candidates	33	53,2

Participants most frequently reported skills gaps in problem solving and critical thinking among job applicants (Table 84). This is followed by technical skills and IT-related skills.

Customer service skills were mentioned less frequently.

Table 84. Skill Gap Among Job Applicants

Question: In which areas do you think there are the most common skills gaps among job applicants in your province?	
Options	**Number of Marks**
Technical Skills and Critical Thinking	27
Communication Skills	9
Leadership or Management	17
Problem Solving and Critical Thinking	35
Customer Service Skills	5
Digital or IT-related Skills	21
Note = Participants could select more than 1 option.	

The vast majority of respondents think that economic conditions have a significant impact on the recruitment process (Table 85). No respondent thinks that economic conditions have little or no impact. In conclusion, economic conditions have a significant impact on recruitment processes and this is a critical factor in shaping employment policies.

Table 85. The Effect of Economic Conditions on Recruitment Process

Question: How do you perceive the impact of economic conditions in your province on the recruitment process?		
Options	**n**	**%**
It Affects Completely	22	35,5
It Has a Major Impact	24	38,7
Moderate Impact	10	16,1
Little Effect	-	-
No Effect at All	-	-
Note= 6 participants did not answer this question		

The vast majority of respondents consider diversity and inclusion to be important in improving organizational performance. 35.5% rated this factor as important, 14.5% rated it as very important, 37.1% rated it as moderately important, only 1.6% rated it as less important and 1.6% rated it as not important at all. In conclusion, diversity and inclusion have a significant impact on organizational performance and improvements are needed in this area (Table 86).

Table 86. Diversity and Inclusion in Improving Organizational Performance

Question: How important do you see diversity and inclusion in improving organizational performance?		
Options	**n**	**%**
It doesn't matter at all	1	1,6
Less Important	1	1,6
Moderately Important	23	37,1
Important	22	35,5
Very Important	9	14,5
Note= 6 participants did not answer this question.		

3.10. Highlights of the Survey Analysis - Anatolian Side

1. Labor Market Analysis

While the demand for skilled labor is increasing in certain sectors, economic difficulties are negatively affecting job opportunities. Lack of vocational training and lack of infrastructure renewal (technological and physical) are seen as the biggest factors in the decline of employment.

2. Labor Demand and Qualified Personnel Shortage

There is a shortage of skilled labor in manufacturing, scientific/technical activities and education sectors. The main reasons are seen as low wages and migration of skilled labor.

3. Employment of Migrant Workers and People with Disabilities

The perception towards the employment of migrant workers is generally negative. The main problems are legislation, language barriers and cultural adaptation. Employment of people with disabilities is perceived more positively, but there is still resistance in some institutions.

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4. Female Labor Force

The most common skills in the female workforce are organization and communication. The biggest barriers are gender discrimination and the existence of male-dominated sectors. Flexible working hours and childcare support are seen as the most critical steps to support the female workforce.

5. Technological Change and Effects on Labor Force

The impact of technological developments is generally considered neutral, but high demand is expected in the areas of cyber security, artificial intelligence and automation. The biggest adaptation challenges are considered to be lack of infrastructure, shortage of skilled labor and high costs.

7. Linkages between Education and Employment

Existing training programs are seen as insufficient to adapt to the labor market. Universities and career centers should increase internships and sector partnerships for adaptation to technology.

8. Recruitment Processes and Challenges

There are serious problems in finding candidates with technical skills. The biggest gaps are in problem solving, critical thinking and technical skills. Diversity and inclusion have a significant impact on organizational performance.

6. Sectoral and Regional Labor Dynamics

Migration and government incentives affect the development of sectors the most. The largest skills gap is observed in the scientific/technical activities and manufacturing sectors. Labor demand is expected to be concentrated mostly in manufacturing, construction and information/communication sectors.

Conclusion: Strengthening vocational training, developing supportive policies for women and migrant labor, increasing investments in technological transformation and strengthening cross-sectoral cooperation are critical for the development of the labor market in the Anatolian Side of İstanbul.

CHAPTER IV

CHAPTER IV

4. SURVEY ANALYSIS AND FINDINGS - EUROPEAN SIDE

4.1. Demographic Data

This study was conducted on the European side of İstanbul with a total of 103 participants. The gender distribution of the respondents was almost equal, with the majority between the ages of 25-44 and holding a bachelor's or master's degree. They are mostly working in public institutions, NGOs or the Türk Kızılay, mostly in expert or managerial positions. This indicates that the respondents are middle-aged, highly educated and working in public/civil society (Table 87).

Table 87. Demographic Analysis of İstanbul (European Side) Respondents

Demographic Information	Indicators	n	%
Gender	Female	51	49,5
	Male	52	50,5
Age	18-24	10	9,7
	25-34	34	33,0
	35-44	40	38,8
	45-54	17	16,5
	55 years and older	2	1,9
Education Status	High School	2	1,9
	Associate Degree	4	3,9
	Bachelor’s Degree	63	61,2
	Master's Degree	34	33,0

Table 87. Demographic Analysis of İstanbul (European Side) Respondents

Demographic Information	Indicators	n	%
Duration of Employment at the Institution	0-1 year	13	12,6
	2-5 years	42	40,8
	6-10 years	12	11,7
	11-15 years	19	18,4
	16 years and above	17	16,5
Employed Institution	Public Institutions and Organizations	45	43,7
	Civil society organizations	24	23,3
	Private Sector Representation	2	1,9
	Career Center	5	4,9
	Türk Kızılay	23	22,3
	Other	2	1,9
Position	Administrator	30	29,1
	Expert	34	33,0
	Counselor	13	12,6
	Academician	2	1,9
	Other	21	20,4
Note= n=103, 2 participants left their institution of employment and 3 participants left their current position blank.			

4.2. Labor Market Analysis

In order to understand the observations and opinions of the participants on the labor market in İstanbul-European side, they were asked to answer the questions **"How do you evaluate the current situation of the labor market in your province?" and "What is your level of agreement with the reasons for the decrease or stagnation of employment in your province?"**

Regarding the labor market, the vast majority (44.7%) of respondents in İstanbul (Europe) think that job opportunities have decreased due to economic difficulties, while a significant number (36.9%) think that the demand for skilled labor in certain sectors has increased (Table 88). A small number of respondents (4.9%) think that there is a transition period in which new job demands are emerging and some sectors are in the process of development. The proportion of respondents who think that there is a balance between job opportunities and job seekers is very low (1.9%). These results suggest that the labor market is dominated by economic challenges, but the demand for skilled labor is also increasing in certain sectors.

Figure 4. Ratios of İstanbul (Europe) Participants by Education Level (a), Organization (b) and Position (c)

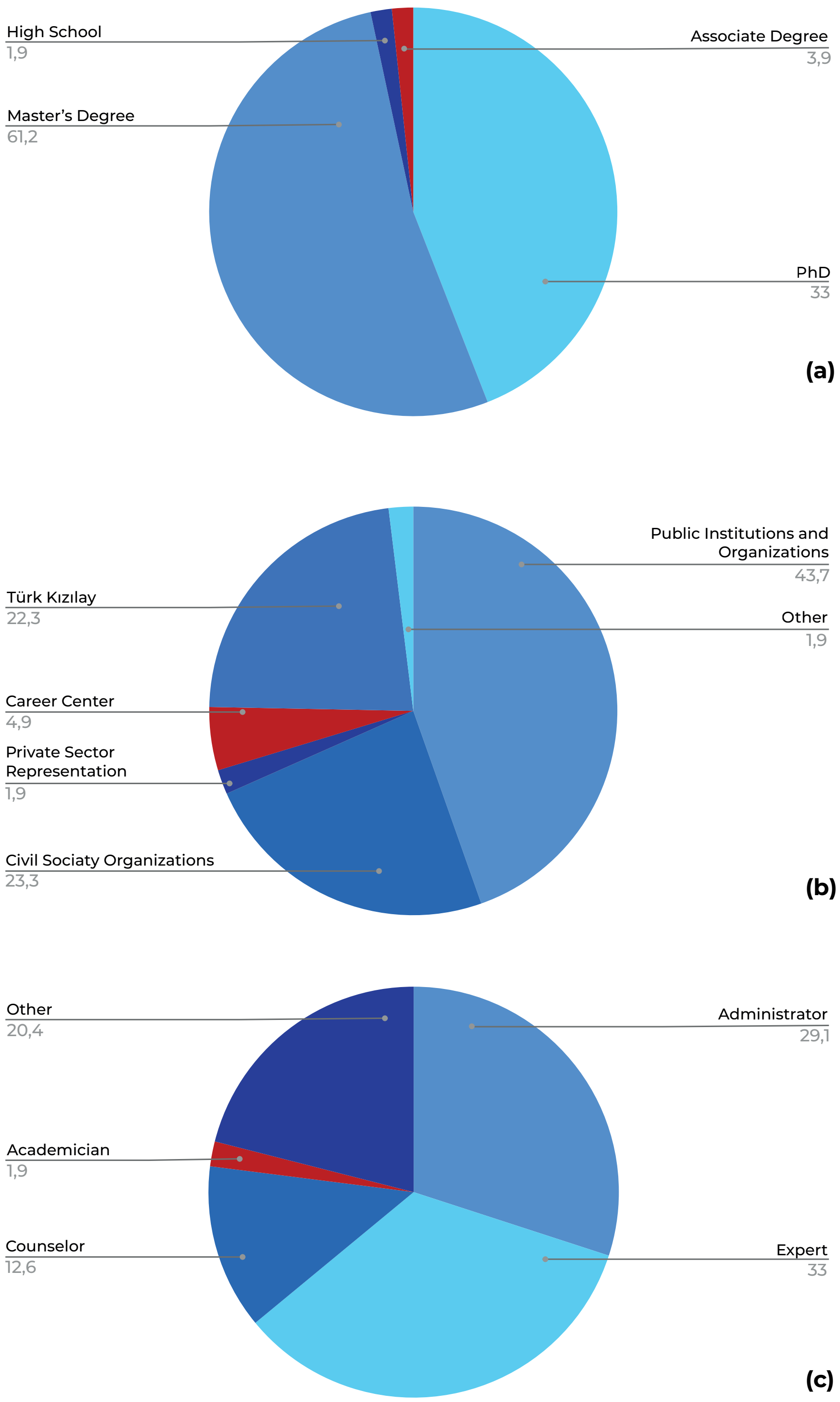

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Table 88. İstanbul (European Side) Labor Market Observation

Question: How do you observe the current situation of the labor market in your province?		
Evaluations	**n**	**%**
There is a balance between job opportunities and job seekers	2	1,9
Skilled labor in specific sectors demand has increased	38	36,9
Work due to economic difficulties opportunities are diminished	46	44,7
There is a transition period in which new job demands are emerging and some sectors are in the process of development	5	4,9
I do not have sufficient information to evaluate	11	10,7
Note= 1 participant did not answer this question.		

Respondents cite factors such as reduced opportunities for vocational training/capacity building and job shifts to other regions or countries as the most important reasons for declining or stagnating employment (Table 89). In addition, an aging workforce that is not being replaced is also seen as a major cause of stagnation. On the other hand, factors such as the shift to greener and more sustainable industries are considered to be less important drivers of employment stagnation. These results suggest that employment problems in the region are mostly related to global trends, education gaps and demographic changes.

> **"While the labor market in the European Side of İstanbul is shrinking under the shadow of economic difficulties, the increase in demand for qualified labor in certain sectors draws attention; this picture signals both crisis and transformation."**

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Table 89. Reasons for Decline or Stagnation in Employment in İstanbul (European Side)

Question: To what extent do you agree that the following are reasons for the decline or stagnation of employment in your province?

Causes	Strongly Disagree		Disagree		Moderately Agree		Agree		Strongly Agree	
Statements*	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Technological developments leading to automation	4	3,9	33	32,0	35	34,0	16	15,5	14	13,6
Shifting or outsourcing of work to other regions or countries	5	4,9	17	16,5	24	23,3	43	41,7	14	13,6
Decline in market demand for goods or services	4	3,9	23	22,3	47	45,6	20	19,4	8	7,8
Transition to greener and more sustainable industries	23	22,3	43	41,7	20	19,4	12	11,7	3	2,9
Aging infrastructure or lack of innovation in the sector	8	7,8	21	20,4	43	41,7	21	20,4	7	6,8
Aging and unreplaced labor force	5	4,9	22	21.4	25	24.3	25	24,3	26	25,2
High demand exceeding local talent supply	6	5,8	21	20,4	40	38,8	25	24,3	9	8,7
Reduced opportunities for vocational training/capacity building	2	1,9	16	15,5	14	13,6	46	44,7	25	24,3

Note= *1 participant did not respond to items 1 and 3, 2 participants did not respond to items 4 and 7, and 3 participants did not respond to item 5.

4.3. Labor Demand and Qualified Personnel Shortage

In order to understand the observations and opinions of the respondents in İstanbul (European Side) on the labor demand and skilled labor shortage in İstanbul, asked them **"How would you rate the importance of the following factors affecting the demand for labor in high-demand sectors in your province?", "Which sectors in your province are currently experiencing a shortage of skilled labor supply?", "To what extent do you agree that the following factors are the causes of the skilled labor shortage in your province?", "To what extent do you think there is a skills and talent gap in the following sectors in your province?", and "How effective do you think the following initiatives will be in closing the skills and talent gap in your province?".**

Respondents think that labor demand in high-demand sectors is most influenced by factors such as increasing demand for qualified professionals (51.5% important, 22.3% very important) and changes in consumer behavior (46.6% important, 26.2% very important) (Table 90).

Table 90. Importance of Factors Affecting Labor Demand in High Demand Sectors in İstanbul (European Side)

Question: How would you rate the importance of the following factors affecting labor demand in sectors with high demand in your province?

Factors	Very Insignificant		Unimportant		Moderately Important		Important		Very Important	
Evaluations*	n	%	n	%	n	%	n	%	n	%
Regional economic growth	2	1,9	10	9,7	24	23,3	56	54,4	10	9,7
Increased technological integration in enterprises	2	1,9	10	9,7	24	23,3	43	41,7	22	21,4
Creation of new sectors that increase labor demand	-	-	11	10,7	24	23,3	45	43,7	22	21,4
Incentives	1	1,0	14	13,6	25	24,3	34	33,0	27	26,2
Growing demand for skilled professionals	1	1,0	2	1,9	21	20,4	53	51,5	23	22,3
Urbanization and infrastructure projects	5	4,9	3	2,9	33	32,0	37	35,9	22	21,4
Changes in consumer behavior or market needs	3	2,9	2	1,9	20	19,4	48	46,6	27	26,2

Note= . Items 1 and 3 were not answered by 1 participant each, items 2 and 4 were not answered by 2 participants each, and items 5, 6 and 7 were not answered by 3 participants each.

In İstanbul-European Side, respondents indicated that the sectors with the highest shortage of qualified labor supply are manufacturing (48 marks), professional, scientific and technical activities (47 marks) and education (42 marks). These sectors are followed by agriculture, forestry and fishing (38 signs) and construction (35 marks). Although it is observed that there is a shortage of qualified labor in other sectors, it is stated that there is less shortage in areas such as water supply, sewerage and waste management (15 marks) and administrative and support service activities (12 marks). These results show that the shortage of skilled labor is particularly concentrated in key sectors such as industry, technical services and education (Table 91).

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Table 91. İstanbul (European Side) Sectors with Shortage of Skilled Labor Supply

Question: In which sectors is there currently a shortage of qualified labor supply in your province?	
Sectors	**Number of Markings**
[1] Agriculture, Forestry and Fisheries	38
[2] Mining and Quarrying	22
[3] Manufacturing	48
[4] Electricity, Gas, Steam and Air Conditioning Production and Distribution	25
[5] Water Supply; Sewerage, Waste Management and Improvement Activities	15
[6] Construction	35
[7] Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	16
[8] Transportation and Warehousing	14
[9] Accommodation and Food Service Activities	26
[10] Information and Communication	24
[11] Finance and Insurance Activities	17
[12] Professional, Scientific and Technical Activities	47
[13] Administrative and Support Service Activities	12
[14] Education	42
[15] Culture, Arts, Entertainment, Leisure and Sports	19
[16] Other Service Activities (e.g: Repair of computers, communication equipment, household goods, clothing, hairdressers, barbershops)	27
Notes = Respondents marked more than 1 in the sectors where there is a shortage of qualified labor supply	

Respondents cited low wages or poor working conditions (57.3% strongly agree, 25.2% agree) and lack of relevant education or training programs (41.7% agree, 21.4% strongly agree) as the most important reasons for the skilled labor shortage (Table 92). Migration of skilled labor to other regions or countries (36.9% agree, 21.4% strongly agree) and limited awareness of job opportunities (38.8% agree, 11.7% strongly agree) are also seen as important reasons. These results show that the shortage of skilled labor is related to multidimensional reasons such as working conditions, educational deficiencies and migration.

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Table 92. Reasons for Skilled Labor Shortage in İstanbul (European Side)

Question: To what extent do you agree that the following factors are the causes of the skilled labor shortage in your province?

Causes	Strongly Disagree		Disagree		Moderately Agree		Agree		Strongly Agree	
Factors	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Lack of relevant education or training programs	4	3,9	13	12,6	21	20,4	43	41,7	22	21,4
Migration of skilled labor to other regions or countries	5	4,9	5	4,9	33	32,0	38	36,9	22	21,4
Limited awareness of job opportunities	4	3,9	6	5,8	41	39,8	40	38,8	12	11,7
Rapid technological advances	2	1,9	18	17,5	34	33,0	35	34,0	13	12,6
Low wages or poor working conditions	2	1,9	6	5,8	10	9,7	26	25,2	59	57,3
Aging and unreplaced labor force	4	3,9	22	21,4	21	20,4	32	31,1	24	23,3
High demand exceeding local talent supply	4	3,9	24	23,3	30	29,1	41	39,8	3	2,9

Note= Items 4 and 7 were not answered by 1 participant each.

Respondents indicated that the sectors with the highest skills and talent gaps are manufacturing (42.7% very high), professional, scientific and technical activities (40.8% very high) and information and communication (33.0% very high) (Table 93). Significant skill gaps were also reported in electricity, gas, steam and air conditioning production and distribution (26.2% very high), finance and insurance activities (26.2% very high) and education (31.1% very high) sectors. On the other hand, sectors such as water supply, sewerage and waste management (15.5% very high) and administrative and support service activities (17.5% very high) have lower skills gaps. These results show that the shortage of skilled labor is more pronounced especially in industry, technical services and technology-oriented sectors.

> **The skills and talent gap in industry, technical services and technology-oriented sectors is alarming; the lack of qualified labor force, especially in manufacturing, IT and engineering, stands out as the most critical problem of the labor market.**

Table 93. Sectoral Skills and Talent Gaps in İstanbul (European Side)

Question: To what extent do you think there is a skills and talent gap in the following sectors in your province?								
Sectors*	**No**		**Quite a Few**		**Moderate**		**Too Much**	
Factors	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
[1] Agriculture, Forestry and Fisheries	10	9,7	29	28,2	38	36,9	24	23,3
[2] Mining and Quarrying	20	19,4	21	20,4	38	36,9	20	19,4
[3] Manufacturing	7	6,8	27	26,2	22	21,4	44	42,7
[4] Electricity, Gas, Steam and Air Conditioning Production and Distribution	5	4,9	23	22,3	46	44,7	27	26,2
[5] Water Supply; Sewerage, Waste Management and Improvement Activities	5	4,9	37	35,9	43	41,7	16	15,5
[6] Construction	11	10,7	20	19,4	34	33,0	33	32,0
[7] Wholesale and Retail Trade; of Motor Vehicles and Motorcycles	8	7,8	25	24,3	50	48,5	18	17,5
[8] Transportation and Warehousing	13	12,6	34	33,0	33	32,0	20	19,4
[9] Accommodation and Food Service Activities	17	16,5	21	20,4	31	30,1	30	29,1
[10] Information and Communication	8	7,8	20	19,4	38	36,9	34	33,0
[11] Finance and Insurance Activities	11	10,7	23	22,3	39	37,9	27	26,2
[12] Professional, Scientific and Technical Activities	4	3,9	13	12,6	41	39,8	42	40,8
[13] Administrative and Support Service Activities	10	9,7	31	30,1	41	39,8	18	17,5
[14] Education	8	7,8	32	31,1	28	27,2	32	31,1
[15] Culture, Arts, Entertainment, Leisure and Sports	16	15,5	22	21,4	49	47,6	13	12,6
[16] Other Service Activities (e.g: Repair of computers, communication equipment, household goods, clothing, hairdressers, barbershops)	12	11,7	30	29,1	36	35,0	22	21,4
Note= *For all sectors given above, there are non-respondents								

Respondents consider cooperation between enterprises and educational institutions (43.7% effective, 37.9% very effective) and sector-specific training programs (39.8% effective, 31.1% very effective) to be the most effective initiatives in closing the skills gap (Table 94). Enhanced career counseling and guidance in schools (35.9% effective, 29.1% very effective) is also seen as an important solution, but has a lower level of impact compared to other initiatives. These results suggest that sector-focused education programs and business-education partnerships play a critical role in closing the skills and talent gap.

Table 94. Impact of Enterprises on Closing the Talent and Skills Gap in İstanbul (European Side)

Question: How effective do you think the following initiatives will be in closing the skills and talent gap in your province?										
	Very Ineffective		**Ineffective**		**Moderately Effective**		**Effective**		**Very Effective**	
Initiatives	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Sector-specific training programs		1,9	2	1,9	25	24,3	41	39,8	32	31,1
Cooperation between businesses and educational institutions	-	-	2	1,9	16	15,5	45	43,7	39	37,9
Enhanced career counseling and guidance in schools	4	3,9	-	-	31	30,1	37	35,9	30	29,1
Note= 1 respondent did not respond to these types of interventions.										

4.4. Migrant Workers and Employment of People with Disabilities

In order to understand the observations and views of the participants in İstanbul (European side) on the employment of migrant workers and people with disabilities, asked them **"What is your general perception of the employment of migrant workers in your organization or in your province?", "To what extent do the following factors influence the decisions regarding the employment of migrant workers in your province?", "How do you assess the impact of employing migrant workers on the following factors in the organizations in your province?", "To what extent do the organizations in your province experience the following challenges in the employment of migrant workers?", "What is your general perception of the employment of people with disabilities in organizations in your province?", "How do you assess the impact of employees with disabilities on the following aspects of organizations in your province?", "In your opinion, which stage of the recruitment process poses the greatest challenge for organizations when hiring migrant workers?" and "What**

is your view on the existence of specific policies or strategies to address the challenges faced by organizations in your province in hiring migrant workers?".

Respondents' overall perception of migrant labor employment is mixed. While 31.1% of the respondents evaluated this situation **positively** and 3.9% very positively, 22.3% found **it negative** and 18.4% **very negative** (Table 95). 16.5% of the respondents had a neutral attitude, **neither positive nor negative.** These results show that there is a balanced balance of both positive and negative views on migrant labor employment in the society.

Table 95. General Perception of Migrant Labor Employment in İstanbul (European Side)

Question: What is your general perception of migrant labor employment in your organization or province?		
Answers	**n**	**%**
Very Positive	4	-
Positive	32	3,9
Neither Positive nor Negative	17	31,1
Negative	23	16,5
Very Negative	19	18,4
Note= 8 participants did not answer this question		

Respondents indicated that lower labor costs (52.4% very influential, 32.0% influential) and the ease of filling vacancies quickly (35.9% influential, 32.0% very influential) were the most important factors influencing decisions to hire migrant workers. Availability of skills not available locally (30.1% influential, 9.7% very influential) and flexibility in work schedules (31.1% influential, 18.4% very influential) are also seen as important factors (Table 96). These results indicate that cost and labor needs are at the forefront of migrant worker employment decisions.

Table 96. Factors Affecting Decisions on the Employment of Migrant Workers in İstanbul (European Side)

Question: To what extent do the following factors influence decisions regarding the employment of migrant workers in your province?										
Labor Employment Decisions	**Not Effective at All**		**Not Effective**		**Moderately Effective**		**Effective**		**Very Effective**	
Factors*	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Availability of skills not available locally	16	15,5	20	19,4	26	25,2	31	30,1	10	9,7
Lower labor costs	-	-	4	3,9	12	11,7	33	32,0	54	52,4
High work ethics and reliability	16	15,5	27	26,2	42	40,8	12	11,7	5	4,9
Flexibility in work schedules	4	3,9	11	10,7	36	35,0	32	31,1	19	18,4
Diversity and inclusion initiatives	6	5,8	38	36,9	31	30,1	14	13,6	13	12,6
Ease of filling vacancies quickly	-	-	10	9,7	22	21,4	37	35,9	33	32,0
Concerns about cultural or language differences	4	3,9	30	29,1	29	28,2	19	18,4	20	19,4
Note= * Items 3, 4, 5, 6 and 7 were not answered by 1 participant each.										

Respondents generally assessed the impact of employing migrant workers on organizations as neutral or positive. Positive impacts were observed on factors such as productivity levels and team dynamics and collaboration, while a more neutral impact was reported in areas such as innovation and creativity and workplace culture. These results suggest that employing migrant workers has a positive impact on productivity, but may have more mixed results in areas such as workplace culture and innovation (Table 97).

Table 97. The Impact of Employing Migrant Workers on Institutions in İstanbul (European Side)

Question: How do you assess the impact of migrant labor on the following factors in institutions in your province?										
	Very Negative		**Negative**		**Neither Positive Nor Negative**		**Positive**		**Very Positive**	
Factors*	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Team Dynamics and Collaboration	8	7,8	28	27,2	46	44,7	19	18,4	2	1,9
Productivity Levels	6	5,8	15	14,6	28	27,2	38	36,9	16	15,5
Innovation and Creativity	6	5,8	37	35,9	41	39,8	19	18,4	-	-
Workplace Culture	10	9,7	35	34,0	43	41,7	15	14,6	-	-

Respondents identified legal or regulatory compliance and workplace integration with local staff as the most challenging areas for migrant workers (Table 98). Cultural adaptation issues and language or communication barriers also stand out as important challenges. These results suggest that legal compliance, communication and cultural integration are the biggest barriers to migrant worker employment.

Table 98. Challenges Faced by Organizations Employing Migrant Workers in İstanbul (European Side)

Question: Assess the extent to which the following challenges in the employment of migrant workers are experienced by the organizations in your province.										
	No Difficulties at All		**Very Few Difficulties**		**Experiencing Moderate Difficulty**		**Experiencing too Much Difficulty**		**It's a Complete Challenge**	
Factors	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Language or communication barriers	2	1,9	10	9,7	50	48,5	38	36,9	2	1,9
Cultural adaptation problems*	4	3,9	18	17,5	35	34,0	38	36,9	8	7,8
Legal or regulatory compliance	6	5,8	4	3,9	20	19,4	51	49,5	22	21,4
Costs related to recruitment or training*	7	6,8	27	26,2	25	24,3	27	26,2	16	15,5
Workplace integration with local staff*	4	3,9	13	12,6	26	25,2	31	30,1	29	28,2
Ease of filling vacancies quickly	20	19,4	21	20,4	34	33,0	16	15,5	12	11,7
Concerns about cultural or language differences	8	7,8	14	13,6	39	37,9	28	27,2	14	13,6
Note= * 1 person did not participate in items 1 and 4.										

Respondents consider **"legal legislation"** to be the biggest challenge in the recruitment process of migrant workers (Table 99).

Table 99. Challenges in the Recruitment Process of Migrant Workers

Question: Which stage of the recruitment process do you think poses the biggest challenge for organizations when hiring migrant workers?		
Answers	**n**	**%**
Identify and Attract Qualified Candidates	19	18,4
Legislation	62	60,2
Recruitment and Training	4	3,9
Integrating them into Workplace Culture	18	17,5

According to participant views, organizations in İstanbul (European side) generally have no or limited policies towards migrant worker employment (Table 100). These findings suggest that most organizations do not have a systematic approach to migrant worker employment.

Table 100. Policies and Strategies for the Recruitment Process of Migrant Workers

Question: What is your view on whether organizations in your province have specific policies or strategies to address challenges in recruiting migrant workers?		
Answers*	**n**	**%**
Yes, they have comprehensive policies.	6	5,8
Yes, but the policies are quite limited.	55	53,4
No, they don't have a specific policy.	41	39,8
Note = *1 respondent did not answer this question.		

The general perception of the participants towards the employment of people with disabilities in institutions in İstanbul (European Side) is generally positive or neutral (Table 101). While 15.5% of the participants evaluated this situation very positively, 27.2% evaluated it positively, 30.1% had a neutral attitude as neither positive nor negative. On the other hand, 19.4% had a negative perception and 1.9% had a very negative perception. These results show that there is a general positive tendency in the society towards employment of disabled people, but a significant number of people still have a neutral or negative attitude.

Table 101. General Perception on Employment of People with Disabilities in Institutions in İstanbul (European Side)

Question: What is your general perception regarding the employment of people with disabilities in institutions in your province?		
Answers	**n**	**%**
Strongly Positive	16	15,5
Positive	28	27,2
Neither Positive nor Negative	31	30,1
Negative	20	19,4
Strongly Negative	2	1,9
Note= 6 participants did not answer this question.		

Respondents generally evaluate the impact of employees with disabilities on performance in organizations in İstanbul (European Side) as neutral (Table 102). While the impact of employees with disabilities is largely neutral in factors such as team dynamics and collaboration (46.6% neither positive nor negative) and productivity levels (52.4% neither positive nor negative), a similar trend is observed in areas such as innovation and creativity (63.1% neither positive nor negative) and workplace culture (44.7% neither positive nor negative). Negative impacts are more pronounced in factors such as team dynamics and collaboration (45.6% negative) and workplace culture (44.7% negative). Positive effects were generally low. These results suggest that employees with disabilities have more of a neutral rather than a significant positive or negative impact on organizational performance.

Table 102. İstanbul (European Side) the Impact of Disabled Employees on the Performance of Organizations

Question: How do you assess the impact of employees with disabilities on the following aspects of organizations in your province?

Organisation Aspects	Very Negative		Negative		Neither Positive Nor Negative		Positive		Very Positive	
Factors	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Team Dynamics and Collaboration	5	4,9	47	45,6	48	46,6	2	1,9	5	4,9
Productivity Levels	2	1,9	44	42,7	54	52,4	2	1,9	2	1,9
Innovation and Creativity	2	1,9	25	24,3	65	63,1	10	9,7	2	1,9
Workplace Culture	4	3,9	46	44,7	46	44,7	6	5,8	4	3,9

4.5. Women Labor

In order to understand the observations and views of participants in İstanbul (European Side) on the female workforce, they were asked to respond to the questions **"How prevalent do you believe the following skills are in the female workforce in your province?", "To what extent do you think the following factors limit the representation of women in certain occupations in your province?"**, and **"How critical do you think the following actions are to better support the female workforce and utilize their skills in various occupations?".**

The survey of the female labor force in the European Side of İstanbul assessed the level of women's possession of various skills. Organization and time management and communication and interpersonal skills stand out among the skills with the highest level of participation (Table 103). In addition, skills such as creativity and innovation, problem solving and critical thinking are also quite common in the female workforce. According to the data, while the female workforce in the European Side of İstanbul exhibits a strong profile especially in areas such as communication, organization and problem solving, it has a potential to be further supported in the areas of technical skills and leadership.

Table 103. Female Labor Force Skills in İstanbul (European Side)

Question: How common do you believe the following skills are in the female labor force in your province?										
	Strongly Disagree		**Disagree**		**Moderately Agree**		**I Agree**		**Strongly Agree**	
Skills*	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Leadership and decision making*	2	1,9	10	9,7	54	52,4	26	25,2	10	9,7
Communication and interpersonal skills*	2	1,9	2	1,9	32	31,1	50	48,5	16	15,5
Organization and time management*	2	1,9	4	3,9	28	27,2	47	45,6	21	20,4
Creativity and innovation*	2	1,9	2	1,9	32	31,1	46	44,7	20	19,4
Technical skills (e.g. coding, data analysis) *	2	1,9	15	14,6	47	45,6	24	23,3	14	13,6
Problem solving and critical thinking*	2	1,9	4	3,9	27	26,2	45	43,7	24	23,3
Adaptability and multitasking*	-	-	6	5,8	30	29,1	40	38,8	26	25,2
Note= *1 respondent did not answer.										

Respondents indicated that the biggest obstacles to women's labor force are male dominated sectors and gender discrimination (Table 104). Cultural/societal expectations and lack of work-life balance policies were also cited as important barriers. Limited access to education was less emphasized. As a result, women's labor force participation is limited by social norms and structural barriers.

Table 104. Factors Limiting the Female Labor Force in İstanbul (European Side)

Question: To what extent do you think the following factors limit the representation of women in certain occupations in your province?										
Skills	**Strongly Disagree**		**Disagree**		**Moderately Agree**		**Agree**		**Strongly Agree**	
Factors	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Cultural or societal expectations	-	-	10	9,7	26	25,2	44	42,7	22	21,4
Limited access to education and training in certain areas	4	3,9	25	24,3	31	30,1	26	25,2	16	15,5
Gender discrimination in recruitment and promotion	6	5,8	13	12,6	21	20,4	25	24,3	36	35,0
Lack of work-life balance policies	4	3,9	8	7,8	35	34,0	22	21,4	31	30,1
Male-dominated sectors	4	3,9	9	8,7	15	14,6	27	26,2	44	42,7
Note= 1 participant for items 1 and 2; 2 participants for item 3; 3 participants for item 4; and 4 participants for item 5.										

Respondents indicated that the most critical actions to support the female workforce in the European Side of İstanbul are flexible working hours and childcare support, and increasing access to technical and vocational training programs (Table 105). Gender-neutral hiring practices and promoting women to leadership roles were also seen as important steps. In conclusion, flexible working conditions, training opportunities and leadership opportunities are crucial to increase women's labor force participation.

Table 105. Factors Limiting the Female Labor Force in İstanbul (European Side)

Question: How critical do you think the following actions are to better support the female workforce and utilize their skills in various occupations?										
Skills	**Not Critical at All**		**Not Critical**		**Moderately Critical**		**Critical**		**Very Critical**	
Factors	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Implement gender-neutral recruitment practices	1	1,0	10	9,7	15	14,6	39	37,9	37	35,9
Offer flexible working hours and childcare support			4	3,9	3	2,9	30	29,1	65	63,1
Increase access to technical and vocational training programs	2	1,9	4	3,9	15	14,6	43	41,7	38	36,9
Promoting women into leadership roles	6	5,8	13	12,6	19	18,4	25	24,3	39	37,9
Note= *1 respondent did not answer these factors.										

4.6. Technological Change and its Effects on Labor Force

In order to understand the observations and opinions of respondents on the European side of İstanbul regarding technological change and its impact on the labor force, asked them to **"How do you think new technologies (e.g. artificial intelligence, automation, green technologies) will affect the labor market in your province", "What types of occupations or areas of expertise do you believe will be most in demand in the next 10 years?", "Please rate the likelihood that each of the following occupations will be in high demand in the future due to technological developments.", "What are the biggest challenges faced in adapting the labor market to new technological and industrial developments?", "Which skills do you think are the most critical for workers in the future labor market?", "Do you believe that the private sector in your province is investing enough to prepare the workforce for technological changes?", "Which of the following group(s) do you think would benefit the most from technological developments in the labor market?", "Which group do you think has the highest risk of job loss due to technological developments?", "Which measures should be prioritized to address the impact of technology on the labor market?", and "How ready is your province to respond to changes in the labor market caused by new technologies?.**

Respondents generally assessed the impact of new technologies (e.g. artificial intelligence, automation, green technologies) on the labor market in the European Side of İstanbul as neutral or positive. 32.0% thought that the impact was neither positive nor negative, 23.3% somewhat positive and 18.4% very positive. The rate of those who thought there was a negative impact was lower, with 18.4% considering it somewhat negative and 5.8% considering it very negative. In conclusion, new technologies are expected to have a largely positive impact on the labor market. (Table 106).

Table 106. Impact of New Technologies on the Labor Market in İstanbul (European Side)

Question: How do you think new technologies (e.g. artificial intelligence, automation, green technologies) will affect the labor market in your province?		
Answers	**n**	**%**
Strongly Positive	19	18,4
Slightly Positive	24	23,3
Neither Positive nor Negative	33	32,0
Slightly Negative	19	18,4
Strongly Negative	6	5,8
Note= 2 participants did not answer this question.		

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Respondents predicted that artificial intelligence and machine learning specialists and e-commerce and supply chain specialists will be the most in demand occupations in the next 10 years (Table 107). These are followed by cybersecurity experts and robotics engineers and automation experts. Data scientists and data analysts and software developers and engineers are also in high demand. In conclusion, occupations in the fields of technology, digitalization and sustainability are expected to be prominent in the labor market in the next 10 years.

Table 107. Occupations or Specialties that will be in the Highest Demand in 10 Years

Question: What professions or specialties do you believe will be most in demand in the next 10 years?	
Profession or Specialization	**Number of Markings**
[1] E-commerce and Supply Chain Expert	56
[2] Animation	15
[3] R&D	26
[4] Artificial Intelligence and Machine Learning Experts	66
[5] Data Scientists and Data Analysts	41
[6] Cyber Security	55
[7] Renewable Energy Technicians (e.g. solar panel installers, wind turbine technicians)	21
[8] Software Developers and Engineers	42
[9] Healthcare Workers (e.g. nurses, doctors, medical technicians)	18
[10] Digital Marketing Experts	15
[11] Crafts (e.g. electricians, plumbers, welders)	13
[12] Educators and Trainers in Technology and Digital Skills	18
[13] Information Security Specialist	37
[14] Computer Games Programmer	17
[15] Cloud Computing Specialist	21
[16] Environmental Scientists and Sustainability Consultants	10
[17] Financial Analysts and FinTech Experts	12
[18] Robotics Engineers and Automation Specialists	46
[19] Social Workers and Counselors	11
[20] Digital Forensics Expert	9
[21] Social Media Specialist	12
[22] Micro Process Designer	10
[23] Enterprise Resource Planning Specialist	7
Note = Respondents marked more than 1 occupation and specialization	

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Participants predicted that cybersecurity specialists, artificial intelligence and machine learning specialists, and software developers and engineers would be in the highest demand in the future due to technological developments (Table 108). Robotics engineers and automation specialists, data scientists and data analysts, and information security specialists were also among the occupations that will be in high demand. On the other hand, traditional occupations such as healthcare workers, craftsmen and social workers are projected to be less affected by technological developments or to be in moderate demand. As a result, technology, digitalization and sustainability-oriented occupations are expected to be in the highest demand in the future, while traditional occupations will continue to be in lower or medium demand.

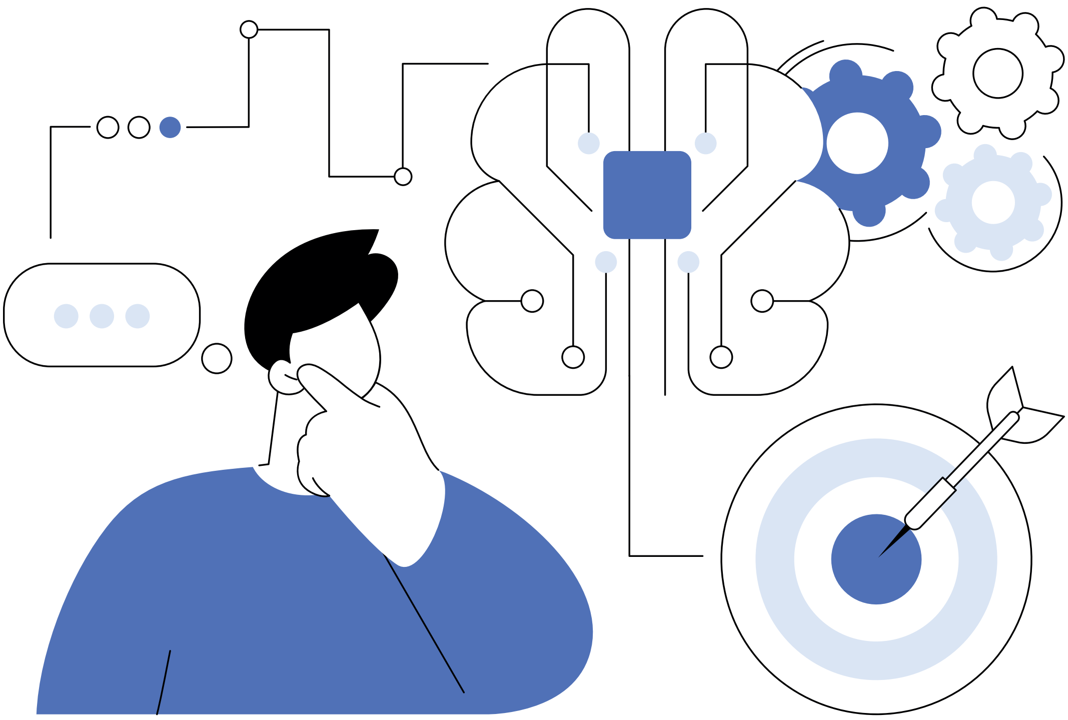

Table 108. Demand Probability of Occupations According to Technological Developments

Question: Please assess the likelihood that each of the following occupations will be in high demand in the future due to technological developments.						
Profession or Specialization	**Low**		**Middle**		**High**	
	n	**%**	**n**	**%**	**n**	**%**
[1] E-commerce and supply chain expert	6	5,8	29	28,2	67	65,0
[2] Animation Programmer	11	10,7	50	48,5	40	38,8
[3] R&D Personnel	2	1,9	43	41,7	56	54,4
[4] Artificial Intelligence and Machine Learning Experts	2	1,9	6	5,8	94	91,3
[5] Data Scientists and Data Analysts	2	1,9	26	25,2	74	71,8
[6] Cyber Security Experts	2	1,9	4	3,9	95	92,2
[7] Renewable Energy Technicians (e.g. solar panel installers, wind turbine technicians	2	1,9	36	35,0	64	62,1
[8] Software Developers and Engineers	2	1,9	14	13,6	86	83,5
[9] Healthcare workers (e.g. nurses, doctors, medical technicians	25	24,3	41	39,8	36	35,0
[10] Digital Marketing	10	9,7	42	40,8	50	48,5
[11] Crafts (e.g. electricians, plumbers, welders	29	28,2	39	37,9	34	33,0
[12] Educators and Trainers in Technology and Digital Skills	4	3,9	38	36,9	60	58,3
[13] Information Security Specialist	2	1,9	28	27,2	72	69,9
[14] Computer Games Programmer	-	-	49	47,6	53	51,5
[15] Cloud Computing Specialist	4	3,9	30	29,1	68	66,0
[16] Environmental Scientists and Sustainability Consultants	6	5,8	57	55,3	39	37,9
[17] Financial Analysts and FinTech Experts	10	9,7	48	46,6	44	42,7
[18] Robotics Engineers and Automation Specialists	2	1,9	18	17,5	82	79,6
[19] Social Workers and Counselors	24	23,3	47	45,6	31	30,1
[20] Digital Forensics Expert	12	11,7	46	44,7	44	42,7
[21] Social Media Specialist	18	17,5	48	46,6	36	35,0
[22] Micro Process	4	3,9	40	38,8	58	56,3
[23] Enterprise Resource Planning Specialist	13	12,6	46	44,7	43	41,7
Note= For each profession and specialization given above, 1 respondent did not answer.						

Respondents indicated that the biggest challenge for the labor market to adapt to new technological and industrial developments is the high costs of adopting new technologies (70 responses) (Table 109). This is followed by lack of infrastructure (60 responses) and lack of qualified labor (53 responses). According to the respondents, costs, lack of infrastructure and lack of skilled labor are seen as the most critical challenges in adapting to technological and industrial developments.

Table 109. Challenges in Adapting to New Technological and Industrial Developments

Question: What are the biggest challenges for the labor market to adapt to new technological and industrial developments?	
Answers	**Number of Marks**
Lack of skilled labor force	53
Limited access to education and training	39
Resistance to change in organizations	50
High costs of adopting new technologies	70
Lack of infrastructure	60
Note= Participants selected more than 1 option.	

Respondents indicated that the most critical skill for workers in the future labor market is technical expertise in emerging technologies (Table 110). This is followed by problem solving and digital literacy. As a result, technological expertise, problem solving and digital skills are seen as the most critical competencies in the future labor market.

Table 110. Most Critical Skills for Workers in the Future Labor Market

Question: Which skills do you think are the most critical for workers in the future labor market?	
Skills	**Number of Marks**
Digital Literacy	50
Problem Solving	58
Critical Thinking	36
Communication Skills	48
Technical Expertise in Emerging Technologies	69
Note= Participants selected more than 1 option.	

The majority of respondents (68.9%) think that the private sector in the European Side of İstanbul does not invest enough to prepare its workforce for technological changes (Table 111). Only 31.1% stated that the private sector makes sufficient investments in this regard. As a result, it is seen that the private sector needs to increase its investments in the workforce to adapt to technological changes.

Table 111. Investments of the Private Sector in İstanbul (European Side) to Prepare the Labor Force for Technological Changes

Question: Do you believe that the private sector in your province is investing enough to prepare its workforce for technological changes?		
Options	**n**	**%**
Yes	32	31,1
No	71	68,9

Respondents think that entrepreneurs (45.6%) and highly skilled workers (40.8%) will benefit the most from technological developments in the labor market (Table 112). Middle managers (9.7%) and especially low-skilled workers (3.9%) are seen as groups that will benefit less from these developments. As a result, technological developments are predicted to create the most opportunities for entrepreneurs and highly skilled workers.

Tablo 112. Groups that Can Benefit from Technological Developments

Question: Which of the following group(s) do you think would benefit the most from technological developments in the labor market?		
Options	**n**	**%**
Highly Skilled Workers	42	40,8
Low-Skilled Workers	4	3,9
Middle Managers	10	9,7
Entrepreneurs	47	45,6

Respondents indicated that low-skilled workers (48.5%) are at the highest risk of job loss due to technological developments (Table 113). This is followed by older workers (35.9%) and mid-career professionals (13.6%). As a result, the risk of negative impacts of technological developments on low-skilled workers in particular seems to be high.

Table 113. Highest Likelihood of Job Loss due to Technological Developments

Question: Which group do you think is most at risk of job loss due to technological advances?		
Options	**n**	**%**
Low-Skilled Workers	50	48,5
Mid-Career Professionals	14	13,6
Older Workers	37	35,9
Note= 2 participants did not answer this question.		

Among the measures that can be taken to address the impact of technology on the labor market, respondents think that all the options they were given (expanding training and upskilling programs, providing incentives for sectors to adopt technology responsibly, establishing state-led employment support programs, strengthening collaboration between businesses and educational institutions, and promoting lifelong learning initiatives) should be prioritized (Table 114). As a result, according to the participants, education, collaboration and government-sponsored programs are critical to adapt to technological changes.

Table 114. Measures to Address the Impact of Technology on the Labor Market

Question: Which measures should be prioritized to address the impact of technology on the labor market?	
Options	**Number of Marks**
Expansion of training and upskilling programs	95
Providing incentives for sectors to adopt technology responsibly	95
Strengthening cooperation between businesses and educational institutions	94
State-led employment support programs	95
Promoting lifelong learning initiatives	89
Note= Participants selected more than 1 option.	

According to the survey results, the majority of respondents (64.1%) think that İstanbul (European side) is partially prepared for the changes in the labor market caused by new technologies (Table 115). As a result, it is seen that the labor market is not fully prepared for technological changes, but only partially prepared. This situation indicates that there is a need to increase training, cooperation and policy-oriented steps.

Table 115. Readiness for Changes in the Labor Market Caused by New Technologies

Question: How prepared is your province to respond to changes in the labor market caused by new technologies?		
Options	**n**	**%**
Very Prepared	15	14,6
A Little Prepared	66	64,1
Not Prepared at All	22	21,4

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4.7. Sectoral and Regional Labor Dynamics

In order to understand the observations and views of respondents on the European side of İstanbul on sectoral and regional labor force dynamics, asked them **"How do you assess the impact of the following factors on the development of sectors in your province?", "Do you believe that cultural factors (such as traditions, local preferences or heritage) are more influential than economic factors (such as investments, policy or market demand) in the prominence or decline of sectors in your region?", "Which sectors do you think are currently facing the most significant talent and skills shortages?", "Which sectors in your province do you think will have high labor demand?", and "Which sectors in your province are most likely to be affected by technological developments?".**

Respondents think that factors such as migration and labor skills and education levels have the most influence on the development of sectors (Table 116). Government incentives and changes in local or international consumer demand were also highlighted as factors that play an important role in the development of sectors. Investment in regional infrastructure and development is also seen as an influential factor. According to respondents, dynamic factors such as migration, labor skills, government incentives and consumer demand are more determinant in the development of sectors, while traditional and natural factors are seen as less influential.

Table 116. Factors that may Affect the Development of Sectors in İstanbul (European Side)

Question: How do you assess the impact of the following factors on the development of sectors in your province?

Factors	Strongly Disagree		Disagree		Moderately Agree		Agree		Strongly Agree	
Statements	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Cultural heritage or traditions specific to the region	9	8,7	27	26,2	35	34,0	28	27,2	3	2,9
Availability or scarcity of natural resources*	4	3,9	34	33,0	21	20,4	39	37,9	3	2,9
Government incentives	-	-	9	8,7	35	34,0	38	36,9	20	19,4
Changes in domestic or international consumer demand*	-	-	7	6,8	39	37,9	37	35,9	19	18,4
Investing in regional infrastructure and development	-	-	8	7,8	34	33,0	43	41,7	18	17,5
Labor skills and education levels	-	-	6	5,8	30	29,1	41	39,8	26	25,2
Migration trends (e.g. rural-urban or international migration)	2	1,9	4	3,9	13	12,6	54	52,4	30	29,1

Note= * 1 participant did not respond to items 1, 3 and 4, and 2 participants did not respond to item 2.

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The majority of respondents (62.1%) think that economic factors (such as investments, policy or market demand) are more influential than cultural factors (such as traditions, local preferences or heritage) in the prominence or decline of sectors on the European Side of İstanbul (Table 117). 25.2% said that both factors are equally influential, while 10.7% were not sure. No respondent thinks that cultural factors are more influential. As a result, it is seen that economic factors are more determinant than cultural factors in the development of sectors.

Table 117. Cultural and Economic Factors in the Promotion or Decline of Sectors in the Region

Question: Do you believe that cultural factors (such as traditions, local preferences or heritage) are more influential than economic factors (such as investments, policy or market demand) in the promotion or decline of sectors in your region?		
Answers	**n**	**%**
Yes, cultural factors are more influential	-	-
No, economic factors are more influential	64	62,1
Both are equally effective	26	25,2
I'm not sure	11	10,7

Respondents indicated that the sectors facing the most significant skills gaps in the European Side of İstanbul are professional, scientific and technical activities and manufacturing (Table 118). Education and agriculture, forestry and fishing sectors also stand out as areas with significant skills gaps. Information and communication and other service activities are also noteworthy sectors. As a result, it is seen that the skills gap is more pronounced especially in technical, scientific and education-oriented sectors, and that steps to increase the quality of the labor force in these areas should be prioritized.

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Table 118. İstanbul (European Side) Sectoral Talent and Skills Gap

Question: Which sectors do you think are currently facing the most significant talent and skills shortages? (You can choose more than one option.)	
Sectors	**Number of Markings**
[1] Agriculture, Forestry and Fisheries	36
[2] Mining and Quarrying	24
[3] Manufacturing	50
[4] Electricity, Gas, Steam and Air Conditioning Production and Distribution	27
[5] Water Supply; Sewerage, Waste Management and Improvement Activities	28
[6] Construction	20
[7] Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	14
[8] Transportation and Warehousing	15
[9] Accommodation and Food Service Activities	21
[10] Information and Communication	34
[11] Finance and Insurance Activities	15
[12] Professional, Scientific and Technical Activities	66
[13] Administrative and Support Service Activities	12
[14] Education	41
[15] Culture, Arts, Entertainment, Leisure and Sports	13
[16] Other Service Activities (e.g: Repair of computers, communication equipment, household goods, clothing, hairdressers, barbershops)	35
Note= Respondents marked more than 1 for the sectors with the most critical talent and skills gaps in İstanbul (European Side)	

Respondents stated that manufacturing and construction sectors are the sectors that they think will have the highest labor demand in the European side of İstanbul (Table 119). Information and communication and accommodation and food service activities are also among the sectors where high labor demand is expected. Education and other service activities are also areas where labor demand is expected to be significant. Labor demand is expected to be lower in sectors such as agriculture, forestry and fishing and mining and quarrying. As a result, sectors such as manufacturing, construction and information-communication are expected to stand out in the labor market and employment opportunities are expected to increase in these areas.

Tablo 119. Sectors Where Labor Demand may be High in İstanbul (European Side)

Question: Which sectors in your province do you think will have high labor demand?	
Sectors	**Number of Markings**
[1] Agriculture, Forestry and Fisheries	14
[2] Mining and Quarrying	15
[3] Manufacturing	38
[4] Electricity, Gas, Steam and Air Conditioning Production and Distribution	12
[5] Water Supply; Sewerage, Waste Management and Improvement Activities	23
[6] Construction	27
[7] Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	25
[8] Transportation and Warehousing	19
[9] Accommodation and Food Service Activities	24
[10] Information and Communication	25
[11] Finance and Insurance Activities	22
[12] Professional, Scientific and Technical Activities	20
[13] Administrative and Support Service Activities	25
[14] Education	22
[15] Culture, Arts, Entertainment, Leisure and Sports	18
[16] Other Service Activities (e.g: Repair of computers, communication equipment, household goods, clothing, hairdressers, barbershops)	31
Note= Participants marked more than 1 sector	

Respondents think that the information and communication sector will be most affected by technological developments in the European Side of İstanbul (Table 120). This is followed by manufacturing, education and professional, scientific and technical activities. As a result, technological developments are projected to have a significant impact especially on the information-communication, education and technical sectors. The importance of adaptation and innovative approaches will increase in these sectors.

Table 120. İstanbul (European Side) Sectors' Likelihood of Being Affected by Technological Developments

Question: Which sectors in your province are most likely to be affected by technological developments?	
Sectors	**Number of Markings**
[1] Agriculture, Forestry and Fisheries	13
[2] Mining and Quarrying	10
[3] Manufacturing	60
[4] Electricity, Gas, Steam and Air Conditioning Production and Distribution	22
[5] Water Supply; Sewerage, Waste Management and Improvement Activities	13
[6] Construction	24
[7] Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	11
[8] Transportation and Warehousing	16
[9] Accommodation and Food Service Activities	23
[10] Information and Communication	80
[11] Finance and Insurance Activities	48
[12] Professional, Scientific and Technical Activities	56
[13] Administrative and Support Service Activities	28
[14] Education	59
[15] Culture, Arts, Entertainment, Leisure and Sports	15
[16] Other Service Activities (e.g: Repair of computers, communication equipment, household goods, clothing, hairdressers, barbershops)	27
Note= Respondents marked more than 1 sector	

> **While the manufacturing, construction and information-communication sectors stand out with rising labor demand on the European Side of İstanbul, technological developments make the need for transformation and qualified employment inevitable, especially in IT, education and technical fields.**

4.8. Links between Education and Employment

In order to understand the observations and views of respondents from the European side of İstanbul on the **"links between education and employment", they were asked to respond to the questions "To what extent are the existing education and training programs in your province effective in preparing workers for technological and industrial developments?" and "To what extent are the following roles of universities and career centers in your province important in helping people adapt to new technologies in the job market?"**

Participants think that the current education and training programs are moderately effective in preparing employees for technological and industrial developments (40.8%) (Table 121). However, the percentage of those who think that the programs are not effective is also quite high (21.4% not effective, 21.4% not effective at all). Only 7.8% stated that these programs were very effective or effective. As a result, it is seen that the current education and training programs are insufficient to adapt to technological and industrial developments and that improvements are needed in this area.

Table 121. The Effect of Existing Education and Training Programs in İstanbul (European Side) on Preparing Employees for Technological and Industrial Developments

Question: To what extent are the current education and training programs in your province effective in preparing workers for technological and industrial developments?		
Answers	**n**	**%**
Very Effective	8	7,8
Effective	8	7,8
Moderately Effective	42	40,8
Not Effective	22	21,4
Not Effective at All	22	21,4
Note= 1 participant did not answer this question.		

Respondents considered the most important roles of universities and career centers in the region in adapting to new technologies to be offering training programs in emerging technologies and enhancing digital literacy and soft skills training (Table 122). Facilitating partnerships with industries for internship, apprenticeship and research opportunities and providing career counseling were also highlighted as important roles. In conclusion, universities and career centers are expected to take a leading role in adapting to technological developments in areas such as education, digital skills, sector partnerships and career guidance. Improvements in these areas are critical in preparing the workforce for the future.

Table 122. The Role of Universities and Career Centers in People's Adaptation to New Technologies

Question: How important are the following roles of universities and career centers in your province in helping people adapt to new technologies in the job market?

	It doesn't matter at all		Not important		Moderately important		Important		Very important	
Options	n	%	n	%	n	%	n	%	n	%
Offer training programs in emerging technologies (e.g. artificial intelligence, blockchain, cyber security)*	-	-	4	3,9	18	17,5	30	29,1	51	49,5
Integrate hands-on, industry-oriented curricula to align with labor market demands.	-	-	2	1,9	22	21,4	41	39,8	38	36,9
Facilitate partnerships with industries for internships, apprenticeships and research opportunities	-	-	2	1,9	16	15,5	38	36,9	47	45,6
Provide career counseling to help students and job seekers understand evolving labor market trends	-	-	2	1,9	18	17,5	37	35,9	46	44,7
Promote lifelong learning and professional development through certificates and online courses	-	-	4	3,9	30	29,1	36	35,0	31	30,1
Creating specialized centers focused on innovation and entrepreneurship	-	-	4	3,9	25	24,3	35	34,0	35	34,0
Improving digital literacy and soft skills training (e.g. teamwork, problem solving	-	-	8	7,8	20	19,4	25	24,3	48	46,6
Conduct regular labor market analyses to identify skills and sectors in high demand	2	1,9	1	1,0	22	21,4	32	31,1	44	42,7

Note= *2 participants each did not respond to items 5,6,7, and 8.

4.9. Recruitment Processes and Challenges

In order to understand the observations and opinions of the participants from the European side of İstanbul regarding **"Recruitment processes and challenges",** asked them to answer questions such as **"How often do you have difficulty in finding candidates with the required technical skills?", "What do you think is the biggest challenge faced by organizations in your city during recruitment?", "In which areas do you think there is a skills gap among job applicants in your province?", "How do you perceive the impact of economic conditions in your province on the recruitment process?", and "How important do you see diversity and inclusion in improving organizational performance?".**

The majority of respondents (58.3%) indicated that they often had difficulty finding candidates with the required technical skills (Table 123). 27.2% indicated that they sometimes had difficulty, while 8.7% indicated that they always had difficulty. Only 3.9% stated that they never have difficulty and 1.9% stated that they rarely have difficulty. In conclusion, the majority of employers have significant difficulty in finding qualified candidates with technical skills. This suggests that technical training and skills development programs need to be increased.

Table 123. Degree of Difficulty in Reaching Individuals with Technical Skills

Question: How often do you have difficulty finding candidates with the required technical skills?		
Options	**n**	**%**
We Have No Difficulty	4	3,9
We Are Rarely Challenged	2	1,9
Sometimes We Struggle	28	27,2
We Often Struggle	60	58,3
We Always Struggle	9	8,7

Respondents indicated that the biggest challenge faced by organizations in their region during recruitment is the lack of qualified candidates (59.2%) (Table 124). As a result, the lack of a qualified workforce stands out as the biggest obstacle in recruitment processes. This suggests that training and skills development programs need to be increased.

Table 124. Difficulties Encountered During Recruitment

Question: What do you think is the biggest challenge faced by organizations in your province during recruitment?		
Options	**n**	**%**
[1] Recruitment processes	18	17,5
[2] High competition for skilled workers	24	23,3
[3] Lack of qualified candidates	61	59,2

Participants most frequently reported skills gaps in technical skills and critical thinking among job applicants (Table 125). This is followed by communication skills and problem solving and critical thinking. Customer service skills were mentioned less frequently. In conclusion, the most significant skills gaps among job applicants are in the areas of technical, communication and problem solving. Training and development programs are needed in these areas.

Table 125. Skill Gap Among Job Applicants

Question: In which areas do you think there are the most common skills gaps among job applicants in your province?	
Options	**Number of Marks**
Technical Skills and Critical Thinking	72
Communication Skills	50
Leadership or Management	30
Problem Solving and Critical Thinking	48
Customer Service Skills	11
Digital or IT-Related Skills	32
Note = Participants selected more than 1 option.	

The vast majority of respondents think that economic conditions have a significant impact on the recruitment process (Table 126). No respondent thinks that economic conditions have little or no impact. In conclusion, economic conditions have a significant impact on recruitment processes and this is a critical factor in shaping employment policies.

Table 126. Impact of Economic Conditions on Recruitment Process

Question: How do you perceive the impact of economic conditions in your province on the recruitment process?		
Options	**n**	**%**
It Affects Completely	56	54,4
It has a Major Impact	41	39,8
Moderate Impact	6	5,8
Little Effect	-	-
No Effect at All	-	-

The vast majority of respondents consider diversity and inclusion to be important in improving organizational performance. 40.8% rated this factor as important, 35.0% rated it as very important, 18.4% rated it as moderately important, only 3.9% rated it as less important and 1.9% rated it as not important at all. In conclusion, diversity and inclusion have a significant impact on organizational performance and improvements are needed in this area (Table 127). (Table 127).

Table 127. Diversity and Inclusion in Improving Organizational Performance

Question: How important do you see diversity and inclusion in improving organizational performance?		
Options	**n**	**%**
It doesn't Matter at All	2	1,9
Less Important	4	3,9
Moderately Important	19	18,4
Important	42	40,8
Very Important	36	35,0

In the light of the data obtained through the survey, labor supply and demand imbalances in İstanbul, sector-based labor shortages and employment expectations are detailed. For a more in-depth interpretation of the survey data, the next section will focus on the analysis of the stakeholder interviews conducted as part of the fieldwork.

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4.10. Highlights of the Survey Analysis - European Side

1. Labor Market Analysis

Economic difficulties are reducing job opportunities, while the demand for skilled labor in certain sectors is increasing. Lack of vocational training, aging of the labor force and shifting of jobs to different regions are the main factors leading to a decline in employment.

2. Labor Demand and Qualified Personnel Shortage

There is a shortage of skilled labor in the manufacturing, scientific/technical activities and education sectors. The main reasons for this situation are low wages, inadequate training programs and migration of skilled labor.

3. Employment of Migrant Workers and People with Disabilities

The perception of migrant labor is mixed, with the main determining factors being low labor costs and the need to fill job vacancies quickly. However, challenges such as legislation, language barriers and cultural and workplace adaptation stand out. Employment of people with disabilities is viewed positively.

4. Female Labor Force

Women were found to have strong organizational, communication and problem solving skills. However, gender discrimination, male-dominated sectors and lack of work-life balance policies are the main factors limiting women's employment. Flexible working conditions, childcare support and technical training programs should be encouraged.

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5. Technological Change and Effects on Labor Force

The professions that will be most in demand in the coming years will be in the fields of artificial intelligence, data analytics, cyber security and robotics engineering. However, to adapt to technological transformation, investments in infrastructure, digital skills development and workforce training should be increased.

6. Sectoral and Regional Labor Dynamics

The development of sectors is mostly influenced by factors such as migration, government incentives, labor skills and consumer demand. The sectors with the highest labor demand are manufacturing, construction and information-communication.

7. Linkages between Training and Employment

Existing training programs are thought to be insufficient to prepare employees for technological and industrial developments.

8. Recruitment Processes and Challenges

Employers struggle to find qualified candidates with technical skills. The most common skills gaps are technical knowledge, critical thinking and communication. Strengthening diversity and inclusion policies is recommended to improve organizational performance.

Conclusion: Strengthening vocational training, developing supportive policies for women and migrant labor, increasing investments in technological transformation and strengthening cross-sectoral cooperation are critical for the development of the labor market in the European Side of İstanbul.

CHAPTER V

CHAPTER V

5. QUALITATIVE ANALYSIS OF LABOR MARKET, ECONOMIC STRUCTURE AND MIGRATION DYNAMICS IN İSTANBUL

This section first provides general information on the procedures followed during the qualitative data collection phase of the fieldwork conducted on January 13-15, 2025, the stakeholders interviewed and the research team for the Province-Based Socio-Economic and Sectoral Current Situation Report.

5.1. Methodology of Qualitative Interviews

During the three-day fieldwork in İstanbul on January 13-15, 2025, semi-structured interviews were conducted with focal people in the institutions for qualitative data collection. These interviews were recorded with the consent of the participants through voice recorders and consent documents were signed by the participants. Semi-structured interviews were conducted with 1 to 12 focal people from each participating institution. Interviews were conducted with a total of 93 participants from stakeholder organizations. The interviews lasted between 65 to 90 minutes. The main purpose of these interviews with stakeholder participants is to facilitate the transition of target groups to the labor market and to achieve social cohesion goals. The data obtained during this process are expected to be a useful resource not only for the current project, but also for similar initiatives in the future. In this context, audio transcriptions were made at the end of the interviews and analyzed using MAXQDA qualitative data analysis software.

This section analyzes data from semi-structured interviews with 93 key informants from 17 stakeholder organizations. The thematic headings that emerged from the analysis are as follows:

- General Sectoral Situation: Potential capacity and opportunities in terms of employment,
- Sectors with Labor Shortages,
- Labor Force Qualifications and Supply-Demand Matching,
- Women's Participation in the Labor Market: Opportunities and Constraints,
- Employers' Attitudes towards Migrant Labor and Market Dynamics,
- Barriers to Migrants' Transition to the Formal Labor Market,
- The Effects of Their Possible Return on the Labor Market,
- Inter-Institutional Communication Network in Transition to the Labor Market

In the following sections, which are organized according to these thematic headings, the different sub-components of each theme are examined in detail.

5.2. General Sectoral Situation: Potential Capacity in terms of Employment and Opportunities

İstanbul is constantly renewing its labor market with dynamics such as logistics and migrant integration, while increasing the need for qualified labor force with the technological transformation in the industrial, commercial and agricultural sectors. The city's strategic location and sectoral diversity create new employment opportunities in both traditional and digital fields, while OIZs and modern agricultural practices diversify labor demand, making İstanbul one of Türkiye's most dynamic labor markets.

İstanbul's economic structure, sectoral diversity and strategic location make it one of the most dynamic labor markets in Türkiye. The city's labor market is in constant transformation with the interaction of industry, trade, services and agriculture sectors. However, basic dynamics such as the lack of qualified personnel in labor force participation, the integration process of the immigrant population, informal employment and sectoral transformations are among the important factors shaping İstanbul's labor market. Especially in the industrial sector, the increasing capacity utilization of Organized Industrial Zones (OIZ) and production processes integrated with technology increase the need for qualified labor force. In addition to traditional industries such as textiles, food and metals, new industries such as automation, digital production technologies and sustainable energy are also transforming labor demand.

İstanbul has a rich history of industrialization and has developed a strong industrial infrastructure, particularly in the textile, food and metal sectors. However, the most significant change in the industrial structure in recent years is the integration of technology into the industrialization process and the increasing demand for a more qualified workforce with digitalization. OIZs in İstanbul are densely populated with industrial firms, particularly in the food, chemical, plastics and metal sectors. In addition, the process of establishing new specialized OIZs in the agriculture and energy sectors has gained momentum according to the capacity utilization within OIZs and the demands of companies. This transformation in the industrial sector has also affected labor demand. It is noted that one of the highest needs in the labor market in the city is related to the textile sector, but small-scale textile firms have been replaced by firms within the larger OIZ. Demand in the food sector is also significant. Demand for unskilled labor in the food processing and production sectors is quite high, but there is also a need for more educated labor in these sectors due to digitalization.

In particular, the use of automation and new production technologies is changing the traditional demand for labor and increasing the search for skilled labor.

İstanbul's geographical location plays a major role in the development of the city's trade structure. Thanks to its advantageous location in terms of both land and sea routes, the city provides significant growth in the logistics and foreign trade sectors. The Port of İstanbul is an important center that contributes to the development of the labor market in the city. According to research, the growth in İstanbul's logistics and transportation sector is driving labor demand both locally and internationally.

İstanbul's agricultural sector has traditionally played an important role in the city's economy. However, in recent years, the modernization process in agricultural production has diversified the need for labor force. In particular, the spread of modern greenhouse cultivation enables the cultivation of new agricultural products. While production is increasing in new areas such as avocado, passion fruit and organic agriculture, this transformation also creates new opportunities in the labor market. While the agriculture-based food industry offers an important opportunity in İstanbul's economy, the limited openness of this sector to automation is another factor that increases employment. According to research, the change in the agricultural sector is driving labor demand towards more organic agriculture and skilled labor needs.

The migrant population and the integration process in İstanbul is an important part of the labor market in the city. İstanbul is one of the most important cities offering economic opportunities for migrants coming to Türkiye. A large part of the migrant labor force, especially the SuTP, participates in the city's labor market. However, the integration of the migrant workforce faces many challenges such as language barriers, social cohesion issues and legal barriers. Social cohesion projects in the city and support for migrants aiming to obtain work permits aim to ease the transition to the labor market. Research has found that while the majority of SuTPs want to join the formal labor force, temporary status and legal restrictions pose significant obstacles in this process.

In conclusion, İstanbul's sectoral structure and labor market are in constant flux, reflecting the city's economic diversity and strategic geographical location. Transformations in İstanbul's industrial, commercial and agricultural sectors are driving demand for a more educated workforce, while creating new opportunities in logistics and digital sectors. While traditional sectors such as agriculture and industry continue to diversify the demand for labor, the integration of İstanbul's migrant population into the labor market is one of the key dynamics in the city's economic structure. These processes are expected to create more opportunities in İstanbul's labor market.

5.3. Sectors with Labor Shortage

In İstanbul, there are serious labor shortages in the industry, service, trade and agriculture sectors, and especially in professions requiring technical skills. There is a shortage of CNC operators and welding masters in industry, and a shortage of waiters and security guards in the service sector due to low wages. The lack of drivers and warehouse workers in logistics and trade negatively affects economic activities. Although modern production methods have become widespread in agriculture, seasonal labor shortages reduce productivity. In order to make İstanbul's labor market more efficient, vocational training programs should be developed, wage policies should be improved and sectoral transformations should be supported.

As the economic, commercial and cultural center of Türkiye, İstanbul is notable for its sectoral diversity and large labor market. The labor market in the city is shaped by different dynamics in each of the main sectors such as industry, trade, services and agriculture. In this section, the sectors with labor shortages in İstanbul, their sectoral distribution and how the demand for labor in these sectors is shaped will be discussed in the light of research and findings.

> **While İstanbul's multi-layered economic structure draws attention with its high employment potential and qualified labor shortage in the labor market, the demands in industry, service and technology-oriented sectors continue to determine the city's production and transformation power.**

Table 128. Sectors and Positions with Labor Shortages in İstanbul

Sector	Positions with Labor Shortage
Industry	CNC Operators
Industry	Welders
Industry	Electricity Technicians
Industry	Machine Assemblers
Service	Waiters
Service	Kitchen Helpers
Service	Housekeeping Staff
Service	Motorized Couriers
Service	Security Officers
Trade	Drivers
Trade	Logistics Elements
Trade	Warehouse Workers
Logistics	Truck and Lorry Drivers
Logistics	Warehouse Attendants
Logistics	Forklift Operators
Agriculture	Seasonal Agricultural Workers
Agriculture	Harvest Workers
Agriculture	Livestock Keepers
Textile	Machine Operators
Textile	Molders
Textile	Overlockers
Construction	Molders
Construction	Painters
Construction	Plumbers

İstanbul's industrial sector is one of the most important areas that form the backbone of the city's economy. The growing production capacity, especially in OIZs, directly affects the size of the industry and labor demand. Industrial enterprises in İstanbul produce in different fields such as food, automotive, metal, chemistl and textiles. However, within this broad industrial structure, the demand for labor requiring technical skills is particularly noteworthy. Research in İstanbul reveals that there is a serious labor shortage in occupations requiring technical skills such as CNC operators, welding masters, electrical technicians and machine assemblers. The shortage in these occupations negatively affects the efficiency and timely completion of industrial production.

Technical skills shortages in the industrial sector are mainly due to a lack of skilled labor. Nevertheless, in some sectors, labor supply is far from meeting demand. In this context, labor demand in the industrial sector constitutes a mix of both unskilled labor and specialists with more advanced technical knowledge. The increasing demand for labor in high-tech production areas makes the shortage of qualified labor in the industrial sector in İstanbul even more pronounced.

İstanbul's service sector consists of various sub-sectors such as tourism, health, finance, education and information technologies. The tourism sector in the city creates significant employment both locally and internationally. However, staff shortages in these sectors are often based on the service sector's demand for low-paid and temporary labor. Especially in the accommodation and food and beverage sectors, there is a constant need for waiters, waitresses, busboys and housekeepers. In addition, the position of motor courier is of great interest in the service sector. Due to the high employee turnover rate, there are difficulties in meeting the labor demand in these areas and employers have difficulty in finding qualified personnel. The need for qualified personnel in the service sector is generally associated with the lack of an educated workforce. According to research, the labor shortage in the service sector in İstanbul is particularly evident in the creative and digital sectors. Although labor demand is high in areas such as graphic design, digital marketing and software development, the shortage of employees in these sectors limits sectoral growth. On the other hand, there is a constant shortage in occupations such as security guards and sales consultants, and it is reported that the need for armed and unarmed security guards is increasing, especially due to the growing population of İstanbul and new housing projects. However, due to low wages and long working hours in such jobs, labor turnover is high and a stable supply of labor cannot be ensured.

İstanbul's trade sector is largely shaped by the intensity of domestic and foreign trade. İstanbul's geographical location and its location at the junction of ports and land routes have made the city a center of trade. In this context, there are significant labor demands in the trade and logistics sectors. Especially in the logistics sector, the demand for drivers, logistics staff and warehouse workers is increasing. However, shortages in positions that require physical labor, such as driving, prevent trade in İstanbul from continuing without disruption. According to research conducted in İstanbul, most of the drivers working in service vehicles are retired people and it is very difficult for the young labor force to take their place in this sector.

The logistics sector is a major part of foreign trade in İstanbul and is growing rapidly along with the development of industry. However, there is a serious labor shortage in the logistics sector. It is observed that there is a great demand for employees to work in occupations such as truck and lorry drivers, warehouse clerks and forklift operators, especially in warehouse and distribution services, but the lack of people who want to work in this field causes the labor supply to fail to meet the demand. Moreover, low salaries and difficult working conditions in the logistics sector exacerbate the barriers to finding labor. On the other hand, companies engaged in international transportation are looking for staff for positions such as language-speaking logistics specialists and customs brokers, but it is reported that there are difficulties in securing long-term employment due to the working conditions and high stress levels of employees in these sectors.

The agricultural sector in İstanbul has diversified with the development of modern agricultural methods such as organic farming and greenhouse production, as well as agricultural activities in areas close to the city. In the agricultural sector in İstanbul, the need for seasonal labor is particularly prominent. In agriculture, the shortage of qualified labor is an important problem. Jobs such as harvesting, pruning and animal care are among the areas with the highest need for agricultural labor. However, the lack of workers in these positions causes disruptions in production processes and negatively affects productivity in the sector. Despite the high salaries and benefits offered to agricultural workers, there are difficulties in recruiting labor. The root cause of this problem is the harsh conditions of agricultural work and the generally low supply of labor.

İstanbul is one of Türkiye's economic centers with its sectoral diversity and strategic location. However, labor shortages stand out as a major problem, especially in areas requiring technical skills. There are serious labor shortages in the industrial sector, logistics, service sector and agriculture. In order to close these deficits, deficiencies in vocational education should be eliminated and policies that will balance labor supply and demand should be developed. For the efficient functioning of İstanbul's labor market, it is important to improve the quality of the labor force, to train qualified employees to meet the labor supply and to improve the wage policies of employers. Moreover, with the development of new sectors, the demand for labor to work in these areas will increase and contribute to the economic growth of İstanbul.

5.4. Labor Force Qualifications and Supply-Demand Matching

In the labor market in İstanbul, supply and demand imbalances are becoming increasingly evident in the industrial, service, trade and agricultural sectors. In industry, there are serious shortages in professions requiring technical skills, while in the service sector, there is a shortage of educated labor in highly skilled professions such as finance, health and IT. In agriculture, the transition to modern production methods has increased the shortage of seasonal labor, while the logistics and construction sectors continue to suffer from a shortage of skilled workers. These problems stem from deficiencies in education policies and hinder the efficient functioning of the labor market. Strengthening vocational training programs and building stronger partnerships with sectors are critical to addressing these imbalances.

While the labor market in İstanbul is notable for its sectoral diversity and size, there are serious mismatches between labor supply and demand in the city. There is a significant imbalance between the demand for and supply of skilled labor in both traditional and emerging sectors. In this section, the mismatch between labor supply and demand in İstanbul will be assessed along with the role of education policies and vocational skills.

Figure 5. Findings and Recommendations on Labor Force Qualifications and Supply-Demand Matching in İstanbul

İstanbul is the economic and trade center of Türkiye and has a concentrated labor demand in sectors such as industry, trade, services and technology. Particularly in the industrial sector, there is a large demand for labor in industries such as food, automotive, metal and chemicals. However, with the digitalization of industry and the increase in new technology applications, the demand for a more technical and skilled workforce has also increased significantly. The demand for jobs requiring digital skills and advanced technology in the industrial sector in İstanbul is faced with an insufficient supply of skilled labor.

For example, the automotive, food processing and chemical sectors in İstanbul have serious labor shortages. The need for a workforce specialized in CNC machines, automation systems and advanced manufacturing processes is a critical requirement to sustain growth in the sector. However, trained labor force is very limited in these technical fields. According to the findings, labor supply is far from meeting the demand for high-tech jobs in the industrial sector.

The imbalance between supply and demand in the labor market in İstanbul is particularly evident in the industrial and service sectors. In the industrial sector, deficits in technical occupations bring up the problem of not being able to find qualified labor force. Especially in the automotive, chemical and textile sectors, there are deficits in occupations such as CNC operators, welders, electrical technicians, machine assemblers. The shortages in these professions have become more pronounced not only in İstanbul's industrial sector, but also across the country with the digitalization of industry and the acceleration of automation processes.

On the other hand, there is a demand for highly skilled labor in the service sector in İstanbul, especially in areas such as finance, health and IT. The growth in İstanbul's financial sector has increased the demand for professionals specialized in areas such as data analysis, software development and digital marketing. However, this demand for highly skilled labor cannot be met by the educated workforce. Research findings reveal that there is an insufficient number of workers, especially in these high-tech fields, and that this gap can be closed with new education policies. The agricultural sector in İstanbul creates a significant labor supply through agricultural activities in areas close to the city. In particular, the need for seasonal labor has been a significant factor in İstanbul's agricultural sector. However, there is also a shortage of qualified labor in this sector. The demand for labor to work in agricultural production areas is shifting towards a more educated workforce to replace traditional agricultural workers. Despite the high wages offered to agricultural workers, demand for these positions is quite low due to difficult working conditions and low productivity. The change in the agricultural sector has also led to differences in labor demand. Instead of traditional seasonal labor, demand for more skilled labor is increasing in areas such as organic farming and modern greenhouse farming. The agricultural sector in İstanbul is increasing the demand for not only seasonal labor, but also more skilled labor through modern farming methods such as organic farming and greenhouse production.

The textile sector also has an important place in İstanbul's labor market. There is an employment gap in occupational groups that play a critical role in textile production processes such as machine operators, molders, modelers and overlockers. The closure of small-scale workshops and the increase in the labor needs of large-scale companies increase the importance of experienced personnel working in this field, but there are problems with the sustainability of long-term employment in the textile sector due to low wages and harsh working conditions .

Finally, the construction sector is reported to have a labor shortage in professions such as craftsmen, molders, painters and plumbers. Especially in İstanbul, where large-scale construction projects are ongoing, there is reportedly a shortage of qualified and experienced workers. Although migrant labor plays an important role in this sector, their mostly unregistered employment and legal status issues create imbalances in the labor market. In order to address these gaps in the construction sector, it is recommended to increase cooperation between vocational high schools and the sector and to accelerate the certification processes of workers.

The imbalance between supply and demand in the labor market in İstanbul manifests itself at different levels in sectors such as industry, services, agriculture and logistics. While the industrial sector in the city is constantly increasing its demand for labor, especially with technological innovations and digitalization, the demand for low-wage labor in the service sector stands out as an important problem in the labor market. The agricultural sector, with its seasonal labor supply, also creates labor demands with high wages but harsh working conditions. This imbalance in the labor market in İstanbul stems from inadequacies in the education system. Vocational high schools are generally insufficient to train technical labor force, which deepens the deficits in the industrial sector. Research has shown that the educated labor force needs to be trained in technical skills, which are more in demand, especially in the industrial sector. Improving the quality of education in vocational high schools and strengthening the cooperation between industry and vocational schools are factors that can reduce this imbalance in the labor market in İstanbul.

5.5. Women's Labor Market Participation: Opportunities and Constraints

In İstanbul, women's labor force participation is lower than men's due to inequalities in social norms, education levels and working conditions. Women are mostly concentrated in the textile, education, health and service sectors, while informal employment and precarious working conditions are common. In recent years, there has been an increasing trend towards industrial and technology sectors, but cultural barriers and security concerns restrict women's employment. While migrant women work in low-paid and unregistered jobs, limited childcare opportunities make it even more difficult for women to participate in the labor force. Vocational training programs, childcare support and incentive mechanisms for women need to be strengthened to increase women's employment.

Women's participation in the labor market in İstanbul is shaped by cultural norms, labor demand and differences in educational attainment. Despite lower participation rates compared to men, women's involvement in the labor market has shown encouraging progress in recent years.

By 2023, the labor force participation rate of women in İstanbul is estimated to be around 30-35%. The low rates of women's labor force participation are due to some key social factors. These include domestic care responsibilities, the fact that childcare is usually the responsibility of women, women's lower educational attainment compared to men, and the social barriers women face in labor force participation.

On the other hand, women's labor force participation in İstanbul is largely concentrated in certain sectors. Agriculture, textiles, education, health and service sectors are among the sectors where women work the most in İstanbul. In particular, occupations such as nursing, nursing, teaching, sales consultancy and customer service offer important employment opportunities for women. In addition, İstanbul's rapidly growing nursery and care services sector has significant potential for increasing women's employment. On the other hand,

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women in İstanbul are concentrated in the textile sector, especially in sewing, packaging and assembly work. However, most of these sectors are associated with informal employment and women's working conditions are often precarious. While some employers continue to steer women toward specific, often low-skilled positions, recent studies indicate a growing trend of women entering traditionally male-dominated sectors, particularly in industry and technology. In İstanbul, several civil society organizations and community centers are actively encouraging women to acquire technical skills and pursue careers in these fields. However, women's desire to work in jobs dominated by men often faces barriers stemming from social and cultural norms.

Another factor limiting women's labor force participation is security and transportation issues. In large metropolitan areas such as İstanbul, women are less likely to work night shifts or in remote locations due to security concerns. In addition, the congestion and long distances in the public transportation system narrows the area in which women search for work, limiting their job opportunities.

In particular, labor force participation of women who are SuTP is higher in İstanbul compared to other provinces in Türkiye. However, this participation is largely in the informal sector and in low-paid jobs. Migrant women are predominantly employed in the textile, food and recycling sectors, with home-based production work becoming increasingly common. On the other hand, some employers prefer migrant women as they provide low-cost labor, leading to precarious employment conditions. In order to increase migrant women's participation in the labor force, language skills and working conditions need to be improved. In this context, opportunities for employment in a wider range of sectors can be provided through Turkish language courses and vocational training programs.

There are several important policy recommendations to increase women's labor force participation. First, incentives to increase women's employment need to be created. These incentives should be geared towards enabling women to participate more in the labor force. It is important to change employers' perceptions of women's employment and to create incentives that will enable women to find jobs not only in certain sectors but also in the manufacturing industry. In addition, in many workplaces in İstanbul, women's limited access to childcare services hinders their labor force participation. Providing more daycare centers and childcare support for women can significantly increase women's labor force participation. Diversification of vocational training programs is also an important factor that can increase women's labor force participation. Vocational high schools and public education centers offering skill development courses for women will allow women to participate in more sectors.

As a result, women's labor force participation rate in İstanbul remains low due to social norms and inequality in education and working conditions. However, in recent years, there has been an increase in the labor force participation of migrant women, especially those who are SuTP. In order to increase women's labor force participation, cultural barriers need to be overcome, training programs need to be increased, positive discrimination against women in the labor market and childcare services need to be improved. Women's labor force participation in İstanbul presents an important opportunity for economic development and social equality.

5.6. Employers' Attitudes towards Migrant Workforce and Market Dynamics

While migrant labor fills an important gap in İstanbul, especially in labor-intensive sectors, the approach of employers to this workforce varies according to sectoral needs and economic conditions. While many employers prefer migrant workers due to their low cost advantage, legal regulations and language barriers act as a deterrent for some employers. The prevalence of informal employment leaves migrant workers without social security and leads to imbalances in the labor market. While government incentives and regulations shape employers' attitudes towards migrant labor, sustainable policies can support integration. Promoting formal employment and raising employers' awareness will ensure a healthier integration of migrant labor into the economic system.

In İstanbul, migrant labor has become an important component of the city's labor market. This workforce plays a critical role in many sectors, especially with the increasing number of SuTPs. However, employers' approach to migrant labor varies depending on the sector and their labor needs. This section discusses the place of migrant labor in the labor market in İstanbul, employers' attitudes towards this labor force and market dynamics.

Migrant labor in İstanbul is generally concentrated in labor-intensive sectors. In sectors such as agriculture, textiles, construction, food, recycling, etc., migrant labor fills a huge gap. Most of the migrants working in these sectors, especially SuTPs, are generally employed as unskilled labor. In the construction sector, the areas where migrants work intensively are positions that require physical labor, creating a large supply of low-wage labor demands. It has been reported that especially in large-scale projects, migrant workers in occupations such as formworkers, painters, plasterers and blacksmiths are employed intensively. In addition, the demand for migrant labor has also increased in the contract manufacturing and industrial sectors, where SuTP are often employed in tasks such as packaging and production. In these sectors, there are vacancies that require physical labor, creating a large supply of low-wage labor demands.

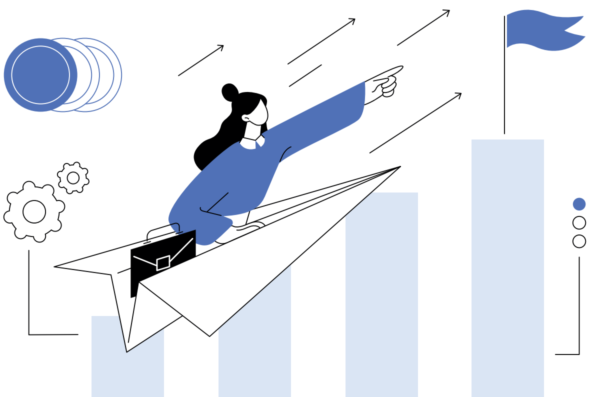
Employers' attitudes towards migrant labor in İstanbul are often shaped by the needs of the sector and economic conditions. Some employers see migrant labor as a low-cost resource. Especially in labor-intensive sectors, employers who want to reduce labor costs prefer migrant workers. These employers consider migrants' willingness to work for lower wages as an advantage.

On the other hand, other employers are hesitant to employ migrant labor. These hesitations stem from issues such as the informal employment of migrants and language barriers. Some employers avoid bureaucratic hurdles regarding the legal status of migrant workers and therefore avoid employing them. In other words, for some employers in İstanbul, the limiting effect of legal regulations is an important factor in their approach to migrant labor. In order to obtain a work permit in Türkiye, employers are required to comply with certain quotas, and the existing legal framework may discourage employers from employing migrant workers in the formal sector. Sectors where informal employment is prevalent include textiles, shoe manufacturing and food. This leaves migrant workers without social security and creates imbalances in the labor market.

Another factor affecting employers' attitude towards migrant labor is sector-specific needs. The demand for migrant labor is particularly evident in sectors that demand low-skilled labor, such as construction, textiles and recycling. The inability to meet the labor demand in these sectors has led to the concentration of migrant labor in these areas. However, there is a more cautious approach to migrant labor in the industrial and service sectors.

Government incentives and legal regulations are another important factor shaping employers' approach to migrant labor. International and local donor-supported projects offer a range of incentives to encourage employers to integrate migrant labor into the formal workforce. These incentives promote the legal employment of migrants and contribute to shaping more favorable employer perceptions toward migrant workers. However, with the end of such incentives, it is observed that some employers are moving away from migrant labor. Ensuring that these incentives are long-term and sustainable is essential for encouraging formal employment, contributing to the social security system, and facilitating the faster integration of migrant workers into the economy. To improve employers' attitudes towards migrant labor, it is important for the government to increase awareness raising activitiesstrengthen incentive mechanisms and develop more effective policies to reduce informal employment.

In sum, employer attitudes towards migrant labor in İstanbul vary across sectors. Migrant labor usually fills a large gap in labor-intensive sectors and employers prefer migrant workers to provide labor at low costs. However, the fact that this labor force is often employed in informal sectors both complicates the economic integration of migrant workers and leads to imbalances in the labor market. Employers' attitudes towards migrant labor are shaped by government incentives and legal regulations. The labor market integration of migrant labor in İstanbul can be further improved by promoting formal employment, providing social security rights and raising awareness among employers.



5.7. Barriers to Migrants' Transition to the Formal Labor Market

Migrants' transition to the formal labor market in İstanbul faces many obstacles such as language barriers, bureaucratic processes, work permits and social benefits. Work permits and foreign worker quotas make it difficult for employers to employ migrants, while lack of language is a major barrier to finding a job and following legal processes. Fear of losing social benefits deters some migrants from turning to formal employment, while fear of repatriation limits their long-term job search. Employers tend to employ migrant workers informally to avoid bureaucratic burdens. In order to overcome these problems, language training, facilitation of work permit processes and regulation of social benefits in a way that encourages formal employment are necessary.

The barriers faced by the migrant workforce in İstanbul, particularly the SuTPs, in their transition to the formal labor market are highly complex due to structural and bureaucratic challenges. The factors that make it difficult for migrants to integrate are often interlinked and many migrants face multiple barriers at the same time. In this section, the barriers to the migrant labor force's transition to formal employment in İstanbul will be discussed, including bureaucratic processes, work permits, language barriers and social assistance.

Figure 6. Barriers to Migrants' Transition to the Formal Labor Market

Language Barrier

Migrants face difficulties in job interviews, opening bank accounts, registering for insurance and obtaining work permits due to language barriers.

Bureaucratic Barriers

Regulations on work permits and migration management, such as **closed neighborhoods and road permits,** restrict labor mobility.

Work Permit Restrictions

In order to obtain a work permit, SuTPs must be under temporary protection for at least 6 months and the proportion of foreign employees in the workplace must not exceed 10%. This reduces employers' willingness to hire migrants.

Unregistered Employment

Employers prefer to employ migrants informally **in order to avoid bureaucratic burdens and provide low-cost labor.**

Effect of Social Aid

Migrants avoid taking up **formal employment for fear of losing benefits such as the KızılayKart.**

Anxiety About Being Returned to Their Home Country

Due to the uncertainty of legal status, many migrants **seek short-term and informal jobs rather than long-term formal employment.**

The language barrier is one of the biggest obstacles for migrants to participate in the labor market. In İstanbul, especially the SuTPs experience a lack of language skills in order to fulfill the necessary procedures for job interviews and work permits. Lack of language skills poses a serious problem not only in job interviews, but also in processes such as opening bank accounts, registering for insurance and obtaining work permits. While employers have found some solutions to overcome the language barrier, this problem creates obstacles for migrants to access legal and banking procedures.

One of the biggest challenges hindering migrants' transition to the formal labor force is the complexity of legal and administrative processes. The "closed neighborhood" and "travel permit" restrictions implemented in İstanbul by the Ministry of Interior's Presidency of Migration Management hinder migrants from seeking employment in other regions. These regulations constitute a significant obstacle for migrants in finding a job. For example, a migrant under temporary protection needs to obtain a travel permit to work in a city other than İstanbul. This process restricts labor mobility, especially in sectors such as transportation, and complicates the process of finding a job.

Work permits in Türkiye are strictly regulated for foreigners under temporary protection. In order to obtain a work permit, SuTPs must have completed at least six months of temporary protection. In addition, the proportion of foreign employees in the workplace where they will be employed cannot exceed 10% of the total number of employees of the workplace. These restrictions limit employers' willingness to employ migrant labor. Some employers avoid following the necessary procedures to obtain work permits, which hinders the transition of migrants to the formal labor market.

Some employers see migrant labor as a particularly low-cost labor force and are willing to employ them. However, concerns about the legal status of migrants and difficulties in bureaucratic processes make employers cautious about employing migrants. For this reason, some employers do not want to overcome the bureaucratic burden of obtaining work permits and prefer to employ migrant workers informally.

Another factor affecting migrants' transition to formal employment is the impact of social assistance. Migrants in İstanbul benefit from social assistance programs developed between the European Union and Türkiye. While the social benefits provided through the ESSN Program help migrants meet their basic needs, for some migrants, these benefits have become a factor preventing transition to the formal labor force. Fearing the loss of social benefits, migrants postpone the transition to formal employment. This makes it difficult for migrant workers to integrate into the formal labor market.

Finally, one of the biggest obstacles for Syrian migrants is the fear of repatriation. Migrants do not prefer to stay in the labor market for the long term due to the uncertainty of their legal status in Türkiye. Fear of repatriation leads migrants to seek short-term, unregistered jobs and prevents them from transitioning to the formal labor market.

In summary, the transition of migrants to the formal labor market in İstanbul faces many structural and bureaucratic obstacles. factors such as work permits, the impact of social assistance and the attitudes of employers make it difficult for migrants to transition to formal employment. To overcome these barriers, language training programs need to be increased, work permit processes need to be accelerated and incentive mechanisms for employers need to be strengthened. In addition, aligning social benefits with formal employment and addressing the fear of repatriation will facilitate the integration of migrants into the labor market.

5.8. Economic and Labor Market Effects of Potential Repatriation

The possible return of migrant workers, who play a critical role in İstanbul's labor market, could lead to serious labor shortages in many sectors. In labor-intensive sectors such as construction, textiles, agriculture and recycling, migrants fill an important gap as a low-cost and flexible workforce, while their absence could disrupt production and service processes in these areas. The return of skilled migrant labor could lead to a loss of talent in strategic sectors such as healthcare, engineering and software, weakening İstanbul's competitiveness. Unless comprehensive education reforms and incentive mechanisms are put in place for the local workforce to fill this gap, economic growth may slow down and labor market imbalances may deepen. On the other hand, the return of the migrant labor force could have significant consequences that would change not only the economic but also the social structure of İstanbul.

The migrant labor force in İstanbul, especially the SuTPs, occupies an important place in the labor market. However, if the repatriation process begins, the loss of this labor force could have serious impacts on İstanbul's labor market. In this section, the potential effects of repatriation on the labor market in İstanbul will be analyzed on a sectoral basis and the gap that migrant labor may create in the labor market will be discussed.

Migrant labor in İstanbul is generally concentrated in labor-intensive sectors. In sectors such as agriculture, textiles, construction and recycling, migrant labor fills a huge gap. In addition to working in the fields, migrant workers are also involved in jobs such as packaging and stacking. The demand for labor in these sectors is largely due to the unwillingness of the native population to work in these jobs. In the industrial and service sectors in İstanbul, especially in the construction and textile sectors, migrant labor fills a serious gap. Therefore, the return of migrant labor may lead to labor shortages in these sectors, which may disrupt the production process in these sectors.

In İstanbul, migrants have a significant share not only in labor-intensive sectors but also in some skilled fields. They have gained competencies in areas such as healthcare, engineering, software development and have joined the labor force. The return of SuTPs may result in the loss of skilled labor across several sectors. This is especially critical for companies in R&D and technical fields, where the departure of specialized personnel could significantly undermine sectoral competitiveness.

The integration of migrants into the labor market may become more difficult with the acceleration of the repatriation process. The migrant population in İstanbul has not only participated in the labor market but also integrated into social life. The economic integration of migrants makes them not only part of the labor market but also part of the social structure. There is a concern that the return of migrant workers could create a huge gap, not only at the sectoral but also at the social level.

On the other hand, migrants have a faster population growth compared to the population of İstanbul, which may lead them to play a dominant role in the labor market in the medium and long term. This trend may lead to a smaller share of the native labor force in employment. Moreover, the growing population of migrants also affects the demographic structure, leading to shifts in social and economic balances. However, a counter-argument is that in the event of the return of the SuTPs, it is expected that the native labor force will be more present in the labor market. This would lead to a loss of the flexibility provided by the migrant labor force, especially in low-paid and temporary jobs, thus allowing the native labor force to fill the gap. However, for this transition to take place in a healthy way, training and support policies to improve the qualifications of the native labor force need to be strengthened.

As a result, the return of migrant labor in İstanbul could have significant and uncertain impacts on the city's labor market. The critical role played by the migrant workforce, especially in labor-intensive sectors and some skilled fields, could lead to large labor shortages in İstanbul's industrial, construction, textile and health sectors. These losses may disrupt sectoral production processes and negatively affect economic growth. Moreover, the social integration of migrants is not limited to the labor market but also affects the social structure of the city. The gaps created by the return of migrants can reshape the local labor force and social structure. Therefore, it should not be overlooked that the effects of returns can leave deep traces not only at the economic level but also at the social level. The future of İstanbul's labor market is likely to be shaped by this transformation process.

5.9. Inter-Institutional Communication Network in Transition to the Labor Market

Supply and demand imbalances in İstanbul's labor market are not only due to individual skill shortages, but also to inter-institutional coordination problems. While the labor shortage is growing in sectors requiring technical skills, the lack of communication between job seekers and employers exacerbates this problem. Unless cooperation between public institutions, the private sector and NGOs is strengthened, labor transition processes will remain inefficient and employment opportunities will not be seized. An effective communication network will play a critical role in directing the skilled labor needed by sectors. Therefore, strengthening inter-institutional cooperation is an important requirement to ensure a sustainable balance in the labor market and increase economic efficiency.

The labor market transition process in İstanbul is not limited to matching labor supply and employer demands. For this process to be successful, it is crucial that the talents and skills of the workforce match the qualifications required by the sectors. This alignment depends not only on individual competency development processes, but also on effective networking, information flow and cooperation mechanisms between stakeholders. Field studies in İstanbul show that the lack of interaction and coordination between stakeholders in projects supporting transition to the workforce can negatively affect follow-up and guidance processes.

There are serious labor shortages in the labor market in İstanbul. However, there is a serious mismatch between the employment expectations of job seekers and the labor profile required by the market. In the participation of the young population in the labor market, occupations such as security guards, cashiers and police officers are generally prominent. As a result, there are difficulties in recruiting labor in some sectors that require technical skills. This situation leads to the formation of primary and secondary labor markets in the labor market in İstanbul.

The primary labor market is dominated by white-collar office jobs, with limited participation of the migrant population. However, the need for migrant labor is increasing in certain lines of business, such as foreign trade. The secondary labor market consists mainly of agriculture, textiles and skilled and unskilled blue-collar jobs. Migrant labor plays a particularly important role in the secondary labor market and many of these sectors are directly affected by changes in labor supply. In this context, effective cooperation between institutions in İstanbul serves as one of the most important factors accelerating the transition to the labor market. Studies show that some CSOs, particularly those active in labor market transition and livelihood creation, effectively manage inter-stakeholder collaboration. Such collaborations are crucial for understanding the needs of both individuals seeking labor and employers demanding labor, and creating data sets accordingly.

In conclusion, the success of projects that facilitate the integration of migrants and other vulnerable groups into the labor market in İstanbul relies on effective inter-agency collaboration. Flexible and adaptable cooperation mechanisms between stakeholders can accelerate labor transition processes by connecting individuals who meet the qualifications required in the labor market with labor demands. Such cooperation projects not only support access to labor, but also play a critical role in ensuring the efficient and sustainable functioning of the labor market.

CHAPTER VI

CHAPTER VI

6. CONCLUSION AND RECOMMENDATIONS

This study aims to comprehensively analyze İstanbul's labor market and identify sectoral employment gaps, vocational training needs, factors that make it difficult to access the labor force and areas for policy development. Field surveys, interviews and questionnaires conducted within the scope of the study revealed the differences between the expectations of employers and job seekers, and the employment dynamics of the province were evaluated with secondary data obtained from institutions such as TURKSTAT, ISKUR and SSI. The main objective of the study is to reveal the imbalances in the labor market in İstanbul, to identify which sectors have labor shortages and to develop concrete recommendations on how to plan vocational trainings in the most efficient way. At the same time, it is aimed to ensure that the labor supply is directed in accordance with the needs of the sectors and thus minimize the loss of time and effort.

In addition to being Türkiye's largest economic center, İstanbul is also one of the cities with the most dynamic labor market. Although it offers a wide range of employment opportunities in industry, services, trade, logistics and finance, the mismatch between labor supply and demand creates a shortage of qualified personnel in various sectors. In particular, the lack of technically skilled labor in industry, the shortage of intermediate staff in the service sector and the shortage of labor in operative positions in logistics negatively affect the economic efficiency of İstanbul. These shortages necessitate specific policy interventions to ensure the sustainability of the labor market. Policies to be implemented in İstanbul should be designed to address the needs of the labor market and be in line with the dynamic structure of the city's economy.

The findings are summarized systematically in Table 88. This table presents a summary framework that analyzes the reasons for the labor shortage in the sectors identified as a result of the analysis of the labor market in İstanbul, expected qualifications and qualifications, gender preferences of employees, attitude towards vulnerable groups and formal employment.

İstanbul's unemployment rate was recorded as 10.2% in 2022, slightly below the 10.4% average for Türkiye. By 2023, the unemployment rate in İstanbul had fallen to 8.9%, in line with the downward trend seen across the country (Table 14). While the unemployment rate in Türkiye as a whole is estimated at 9.4%, İstanbul's lower unemployment rate can be attributed to the city's wide range of job opportunities and economic mobility. However, due to the high competition in the labor market in İstanbul and the high number of job seekers in big cities, individuals may face difficulties in finding a job despite the low unemployment rate. Moreover, the low unemployment rate also indicates that the unemployed may not be fully included in the system, especially in sectors with high levels of informal employment.

In terms of employment rate, İstanbul's situation is more favorable compared to Türkiye's average. In 2022, the employment rate in İstanbul is 50.4%, compared to 47.5% for Türkiye as a whole. In 2023, İstanbul's employment rate rose to 51.9%, remaining above the 48.3% rate in Türkiye (Table 15). İstanbul's service sector-dominated economic structure enables it to have a higher employment rate thanks to its wide range of employment opportunities, especially in the trade, tourism and finance sectors. Despite the high employment rate, the fact that most workers in İstanbul earn minimum wage (Tables 17, 39, and 40) raises questions about how much this employment actually improves living standards.

The labor force participation rate is another indicator in which İstanbul surpasses the national average. In 2022, the labor force participation rate in Türkiye was 53.1%, while in İstanbul it was 56.1%. In 2023, while the labor force participation rate in Türkiye increased to 53.3%, it reached 57% in İstanbul (Table 16). One of the main reasons for İstanbul's high labor force participation rate is its young and dynamic population structure. In addition, the city's large-scale industrial and service sectors create a large employment pool and encourage individuals to actively participate in the job search process. However, the high cost of living in İstanbul forces individuals to work in low-income and temporary jobs, which can negatively affect employment continuity, especially for women and young labor force.

In terms of job vacancies, there is a great demand in İstanbul's labor market. As of 2023, there were a total of 2,677,006 job vacancies in Türkiye, while this number was 650,026 in İstanbul (Table 17). The fact that İstanbul accounts for nearly a quarter of total job vacancies shows the critical role the city plays in terms of job opportunities. However, it is noteworthy that most of the vacancies in İstanbul are for positions requiring qualified intermediate staff and low-skilled labor. While the number of vacancies in the private sector is 649,330, the number of vacancies in the public sector is only 696. This indicates that public sector employment opportunities in İstanbul are considerably limited, compelling the majority of job seekers to turn to the private sector.İstanbul In the private sector, there are large vacancies especially in positions such as retail sales, call centers, warehouse staff, security guards and drivers. The reasons for labor shortages in these occupational groups include long working hours, low wage policies and difficult working conditions.

The industrial sector stands out as one of the most critical sectors in İstanbul's economic development. The increasing production capacity of Organized Industrial Zones (OIZs) and the acceleration of digitalization in the industry have made the shortage of qualified personnel in certain occupational groups even more pronounced. The need for CNC operators, welders and metal cutting specialists is increasing, especially in the machinery manufacturing and metalworking sectors. With the spread of automation systems, the demand for electrical and electronic technicians is also increasing. However, the inadequacy of vocational training programs and the lack of practical training to acquire technical skills are among the main problems that widen the labor shortage in industry. As a policy recommendation, stronger cooperation should be established between industry and vocational high schools and universities, and internship and certificate programs should be increased. Moreover, improving the living conditions of workers in industrial zones, especially improving housing and transportation facilities for workers, will increase interest in the sector.

Although the service sector accounts for a large share of total employment in İstanbul, the shortage of qualified and intermediate staff is a serious problem, especially in tourism, restaurant and call center services. Despite the growth in the tourism sector and the increasing number of visitors, hotels and restaurants are struggling to find enough waiters, bartenders, assistant cooks and hotel receptionists. In addition, with the rise of e-commerce, there is a growing demand for digital marketing specialists, social media managers and SEO specialists. However, the lack of qualified human resources to meet the expectations of employers is among the most important factors limiting the development of the service sector. To overcome this problem in İstanbul, on-the-job training programs should be expanded, special trainings for tourism workers should be increased, and incentives should be provided to train experts in digital marketing. In addition, more attractive working conditions should be created for those working in the service sector to reduce labor turnover and encourage long-term employment.

The trade and logistics sector is a constantly developing area due to İstanbul's geostrategic location. However, despite the growth in the logistics sector, there is a serious labor shortage in operational positions. In particular, there is an employment shortage in professions such as truck and truck drivers, forklift operators, warehouse managers and customs consultants. One of the main reasons for the labor shortage in the logistics sector is the high average age of truck and lorry drivers and the low interest of the young workforce in this sector. In addition, the need for logistics experts who speak foreign languages is increasing for companies engaged in international transportation. To address the current bottleneck in the logistics sector in İstanbul, efforts should be made to promote vocational training for truck drivers, support the entry of young individuals into the field, and implement specialized training programs for foreign language–proficient logistics experts. At the same time, improvements should be made in issues such as social security and working hours for those working in the logistics sector to ensure the sustainability of the workforce.

Although the agricultural sector in İstanbul has traditionally been concentrated in rural areas, modern greenhouse farming and organic farming practices have become widespread in recent years. In particular, agribusinesses integrated with the food industry play an important role in meeting İstanbul's food needs. However, the labor shortage in the agricultural sector has increased dependence on seasonal workers, reducing the interest of the local workforce in this sector. To reverse this situation, incentives for the agricultural sector should be increased and entrepreneurship support should be provided to encourage young people to engage in agricultural production. In addition, new jobs based on agricultural technologies should be created to increase interest in the sector.

The place of women, youth and migrant labor force in the labor market is one of the important factors determining the economic structure of İstanbul. Women's labor force participation rate is still not reaching the desired level due to various socio-economic reasons. In order to increase women's participation in the labor force, nursery support should be increased, flexible working hours should be encouraged and programs supporting women's entrepreneurship should be expanded. In terms of the youth workforce, the lack of sufficient practical knowledge, especially among students graduating from vocational high schools, is seen as an important problem by employers. In order to reduce youth unemployment in İstanbul, job-guaranteed vocational training programs should be increased, internship opportunities should be expanded and skill-building programs to increase the employability of young people should be supported. Migrant labor continues to be largely employed informally. In order to ensure the integration of migrants into the labor market, policies encouraging formal employment should be implemented, vocational training opportunities should be offered and support programs to overcome language barriers should be implemented.

A key concern is the higher population growth rate among migrants relative to İstanbul's native population. Over time, this demographic trend may lead to a stronger presence of migrants in the labor market, thereby diminishing the representation of the local workforce. Furthermore, the growing migrant population is reshaping the demographic composition, with implications for social cohesion and economic equilibrium. However, in the event of the return of the SuTPs, it is expected that the native labor force will be more present in the labor market. This would allow for the loss of the flexibility provided by migrant labor, especially in low-paid and temporary jobs, and thus allow the domestic labor force to fill the gap. However, for this transition to take place in a healthy manner, training and support policies to improve the qualifications of the domestic workforce need to be strengthened.

When the situation of İstanbul is analyzed in terms of disability employment, it is seen that the city shows a similar trend with Türkiye in general. In 2023, a total of 8,722 people with disabilities were employed through ISKUR in İstanbul, while this figure was recorded as 35,177 in Türkiye. The majority of disabled people in İstanbul are employed in the private sector, while the employment of disabled people in the public sector remains at a very low level. While only 17 people with disabilities were employed in the public sector in İstanbul, this number was 8,705 in the private sector (Table 24). One of the main problems regarding the employment of people with disabilities in İstanbul is that employers do not receive sufficient employment incentives for people with disabilities and work environments suitable for people with disabilities are limited. The scarcity of suitable job positions, especially for individuals with physical disabilities, and the inability of companies to ensure accessibility standards are among the factors limiting the development of disability employment in İstanbul.

İstanbul's labor market is shaped by differentiated sectoral demands and employment opportunities in line with regional dynamics. Although some common trends are observed between the Anatolian and European sides, there are significant differences in terms of labor demand, sectoral needs and factors affecting employment . In general, economic challenges

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limit job opportunities in both regions, while the need for skilled labor in certain sectors persists. In the Anatolian Side, the need for qualified personnel in the labor market is particularly concentrated in manufacturing, professional scientific and technical activities, education and construction sectors, while in the European Side, in addition to these sectors, information and communication technologies, finance and insurance activities are also prominent. While the lack of education and technical skills is seen as one of the main reasons for the shortage of qualified labor on the European Side, factors such as low wages, poor working conditions and labor migration are more determinant on the Anatolian Side. In terms of adaptation to technological transformation, while employment is expected to increase in areas such as artificial intelligence, cyber security and robotics engineering on the European Side, the impact of technological changes on the labor market is expected to be more limited on the Anatolian Side. Private sector investments were found to be insufficient on both sides, but this was a more prominent concern on the European side.

In addition to these differences, İstanbul's economic structure is also undergoing significant changes with the transformation of sectors such as industry, services, trade, logistics and agriculture, shaping the overall dynamics of the labor market. In particular, the high cost of living, the abundance of low-paid jobs and the intense competition in the labor market are among the main obstacles that individuals face in the process of finding a job. The fact that the majority of job vacancies are low-skilled positions shows that qualified job opportunities for job seekers remain limited. In this context, various measures need to be taken in order to ensure the supply-demand balance in the labor market in İstanbul, to close the shortage of qualified personnel needed by the sectors and to increase employment.

These are:

- In order to reduce unregistered employment, social assistance and employment processes should be integrated, SSI incentives should be increased, and supervision mechanisms should be strengthened to ensure that employers are oriented towards formal employment.
- Workforce planning should be made in organized industrial zones, internship and on-the-job training programs should be increased through direct cooperation between industrial zones and vocational high schools and universities.
- Vocational education should be integrated with industry to train specialized workforce in areas such as digital skills, green transformation, Industry 4.0, automation and artificial intelligence.

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Digital platforms should be created to connect job seekers and employers, access to job advertisements should be facilitated and guidance services for the labor market should be strengthened.

Training programs on customs legislation, e-commerce management and international trade should be organized to close the labor shortage in the logistics and foreign trade sectors.

Mechanization should be encouraged to reduce the labor shortage in the agricultural sector, social security should be provided for seasonal workers and agricultural technology training should be expanded.

In order to increase women's employment, nursery support should be expanded, training of female technical staff in the industrial sector should be encouraged and women entrepreneurship should be supported.

In order to direct the young workforce to the industry, high school and university students should be organized tours of the industry and technical professions should be made attractive.

Sector-based vocational training courses should be increased in cooperation with ISKUR and the private sector, and programs with guaranteed employment after training should be developed.

Vocational training programs in the textile and food sectors should be expanded, production processes should be organized on the basis of efficiency and working conditions should be improved.

Migrant workforce should be integrated into formal employment, work permits should be expedited and free Turkish education programs should be implemented to overcome language barriers.

Scholarship and incentive programs should be implemented in engineering and technical fields and vocational training centers should be expanded in order to close the qualified labor shortage in the industrial sector.

Flexible models such as working from home, part-time employment and telecommuting should be encouraged to increase labor force participation.

Special incentives should be provided to increase employment in the green transformation and sustainable energy sectors, and a workforce specialized in renewable energy should be trained.

Workforce planning should be made in disaster management and crisis situations, and alternative production plans should be developed in İstanbul's industrial zones to ensure that production is not disrupted after an earthquake.

In sum, although İstanbul is one of the most dynamic cities in Türkiye with a large labor market and economic diversity, imbalances between labor supply and demand lead to serious shortages in some sectors. The lack of technically skilled workers in industry, the shortage of intermediate staff in the service sector and the shortage of operative positions in logistics directly affect economic productivity. Education and employment policies need to be better aligned in order to train a qualified workforce, effectively connect job seekers and employers and ensure sustainability in the labor market. Increasing vocational training especially for industry, logistics, service and trade sectors, developing incentive mechanisms to support women and youth employment, and ensuring the integration of migrant labor into formal employment will contribute to the solution of structural problems in İstanbul's labor market.

Table 129. Sectors in Need of Labor Force and Required Labor Force Characteristics

Sector	Labor Shortage	Causes of Labor Shortage	Expected Qualifications	Gender Preference	Attitudes Towards Vulnerable Groups	Attitudes Towards Formal Employment
Industry	• Machine Operators • Welders • Electricity Technicians • Production Line Workers	• Inadequate technical education • Increased automation in industry	• Vocational high school graduation • Technical certificates, • Automation skills	Male	• Low rate of female and disabled employment, high need for young workers	• Large-scale industrial firms encourage formal employment, but informality is widespread in small enterprises
Service	• Customer Representatives • Call Center Employees • Sales Consultants	• Low wages • Length of working hours	• High persuasiveness, fast problem solving, customer relationship management	Female/Male	• Positive for female employees, room for improvement in the integration of people with disabilities	• High rate of formal employment, but informality exists in some sectors due to flexible working models
Logistics	• Truck and Truck Drivers • Warehouse Managers • Supply Chain Specialists	• Complexity of logistics processes • Heavy traffic in big cities • Long working hours	• Knowledge of warehouse management software, logistics optimization, customs and supply chain management	Male	• Low female employment, opportunities for migrant workers	• Large logistics companies employ registered employees, but the rate of unregistered workers is high in small enterprises
Finance	• Bank Officers • Accountants • Finance Analysts	• Lack of work experience • Financial literacy is low • Insufficient number of experts in the digitalization process	• Knowledge of financial analysis, accounting software, investment strategies accounting certificates	Female/Male	• Opportunities available for people with disabilities	• Formal work is mandatory in the financial sector, but informality exists among freelance consultants
Textile	• Production Workers • Quality Control Elements • Textile Machine Operators • Fashion Designers	• Low wages • Lack of qualified personnel	• Use of textile machinery, knowledge of fabric types, knowledge of pattern making, quality control processes	Female	• Migrant workers are working in large numbers, • Women's employment is widespread, but social security is insufficient	• Although large factories support formal work, informal work is widespread in small scale enterprises

Table 129. Sectors in Need of Labor Force and Required Labor Force Characteristics

Sector	Labor Shortage	Causes of Labor Shortage	Expected Qualifications	Gender Preference	Attitudes Towards Vulnerable Groups	Attitudes Towards Formal Employment
Construction	• Civil Engineers • Masters • Electrical Installers • Welders	• Harsh working conditions • Lack of experienced staff • Project-based working model • Economic fluctuations in the construction sector	• Craftsmanship certificate, apprenticeship training, project management skills, construction site management experience	Male	• High proportion of migrant workers, low female employment	• Informality is widespread in project-based work in the construction sector, while formal employment is provided in large-scale projects
Health	• Nurse • Patient Caregiver • Medical Secretary	• Long working hours, • Inadequate salary • Aging population	• Knowledge of patient care procedures, intensive care skills, medical device use	Female	• Opportunities for high female employment, migrants and people with disabilities can be increased	• Informal employment in the health sector is low, formal employment is mandatory in large hospitals
Tourism	• Tour Guides • Hotel Managers • Waiter • Hotel Receptionist	• Seasonal job opportunities • Lack of linguistic staff	• Tourism certificates, Guest relations management, knowledge of reservation systems, knowledge of foreign languages,	Female/Male	• High female employment, but precarious conditions for seasonal workers	• Undeclared work is widespread among seasonal workers
Information Technology	• Software Engineers • Data Analysts	Lack of qualified personnel Education systems that cannot keep up with the pace of digital transformation Talent migration	• University graduate, software and artificial intelligence programming certificates	Female/Male	• A suitable working environment can be provided for people with disabilities	• Technoparks and large software companies require registered work, but informality is common among freelancers
Education	• Teachers • Education Consultants	• Teacher shortage • Low salaries • Increase in the number of private schools • Lack of pedagogical formation	• Pedagogical formation • Student-oriented teaching techniques, • Knowledge of educational technologies	Female	• Limited opportunities for people with disabilities, • High proportion of female teachers	• Low rate of formal employment

Table 129. Sectors in Need of Labor Force and Required Labor Force Characteristics

Sector	Labor Shortage	Causes of Labor Shortage	Expected Qualifications	Gender Preference	Attitudes Towards Vulnerable Groups	Attitudes Towards Formal Employment
Agriculture	• Greenhouses • Food Engineers • Seasonal Workers • Agricultural Machinery Operators • Agricultural Engineers	• Seasonal labor shortage • Youth apathy • Decline in rural population	• Faculty of Agriculture, professional certificates • Modern agricultural techniques, • Ability to use tractors and other machines	Female/Male	• Seasonal workers predominate	• Informal employment is very high
E-Commerce	• E-Commerce Experts • Digital Marketing Specialists • Order Management Employees	• Lack of digital marketing knowledge	• University graduate, SEO and digital marketing education	Female/Male	• Women entrepreneurship on the rise, opportunities for people with disabilities	• Unregistered employment widespread, formal work encouraged in large companies
Security	• Private security guards • Camera systems technicians	• Lack of trained personnel in private security • Inadequacy of certification processes • Long working hours	• Armed/unarmed security certificate crisis management and security procedures, competence to carry and use weapons	Male	• Low employment of women and people with disabilities	• Registered work is encouraged, but unregistered employment exists in private security companies
Media and Publishing	• Digital content producers • Video editors • Social media managers	• Increased consumption of digital media • Lack of content creators • Need for video editor knowledge	• University graduate, media education	Female/Male	• Youth employment is high,	• Informal employment high among the self-employed
Energy	• Energy Engineers • Environmental Experts	• Lack of training in the green energy sector • Insufficient technical staff	• Knowledge of solar and wind energy systems, energy efficiency management, carbon footprint calculation	Male	• Low proportion of female employees, but opportunities in technical education are available	• Formal employment is widespread in the energy sector with government incentives, but informal employment is high in small firms

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