

Characteristics of the Industrial Manpower in Babylon Governorate

Assist Prof.Dr. Mahmoud Mohamed Hassan Al-Shammari, Dhai Thamer and Waheeb al-Ma'mouri

Abstract

Topics that address and handle the population and workforce case are gaining priority in modern geographical scopes, especially human geography, whether at the level of studies or international conferences and forums in order to try to understand the relationship between these Indexs and deciphering their governing symbols at various levels. The workforce plays an essential and magnificent role in production and economic progress in all countries of the world. It is the only production element that has the ability to think, innovate and innovate. The workforce means people who are already working or looking for work and who have reached an age in which they may be employed. It is formed and is related to the size of the total population.

The geographers focus on the issue of the labor force as one of the geographical phenomena that vary in their characteristics and distribution , as well as the spatial relations with the rest of the phenomena and variables within the geographical area, and the labor force is the real and basic capital and has its effects on the process of economic development, and it is a source of wealth for societies. No development and production plan can be produced without the labor force being included amongst the most important basic elements, as it is the basis in societies and relied on to raise the economic level as they have the duty to work .

The workforce is also one of the phenomena whose future is difficult to predict, as the increase in the size of the workforce in a given year does not necessarily mean a similar increase in the following year. Therefore, the workforce may be subject to change in the short term as long as it is subject to the influence of several factors that change from time to time, and some of them may change quickly.

Keywords: *work, productivity, Babylon Governorate.*

1. Introduction

First: Problem of the Research:

It is a prerequisite for scientific research and the study of the problem is one of the modern trends in geography.

The problem of the study was the following question:

"What is the structure of the characteristics of the industrial workforce in the province of Babylon ", including a number of other issues:

1- What is the role of geographical factors in the characteristics of the industrial workforce in Babylon Governorate?

2- What are the problems of the industrial workforce in Babylon Governorate?

Second: Research Hypothesis:

The research hypothesis is an initial solution to the problem of the study. It is a logical concise statement that the researcher seeks through the steps of his research to prove

1- Natural and human geographical factors play a major role in influencing the characteristics of the industrial workforce in Babylon Governorate.

2- Human (population) factors are the most influential in the industrial workforce in Babylon Governorate.

3- Identifying the problems and challenges facing the workforce in Babylon Governorate and ways to address them in a way that serves the workforce.

Third: Research limitations:

The boundaries of the research were represented by the spatial boundaries of Babylon Governorate, one of the central Euphrates governorates. It came in four districts (Hilla District, Hashemite District, Mahaweel District, Musayyib District), which came with an area of (5119 km²), as shown in Table (1). The population was (2,174,783 people) distributed among the administrative units of the districts and sub-districts of Babylon Governorate.

Table (1) Administrative units of Babylon Governorate

Administrative Unit	Area km ²
Hilla District	878
Al-Mahwil District	1667
Hashemite District	1646
Al-Musayyib District	928
Total Area of Governorate	5119

Source: Republic of Iraq Ministry of Planning and Development Cooperation, Central Agency, Babylon Statistics Directorate, unpublished data, 2012

Fourth: Basic Concepts:

1- Manpower: (The Labor Forces)

It is a part of the population that participates in the provision of labor to produce economic goods and services, including not only employees at the time of the census, but also the unemployed, that is, those who are able to work and those looking for work.⁽¹⁾ The workforce is also defined as the human element working in the various production and service sectors and depends on it to achieve the objectives of the projects and plans set by the state or all individuals who have the ability, desire and search for work.⁽²⁾

There are also those who know it is a group of individuals who actually contribute or need the profession in the production of goods and services.⁽³⁾ The labor force is also defined as a category of males or females out of the total manpower in which the

(1) Hamid and Kaa Al-Sisan, Manpower and its impact on industrial development in Muthanna Governorate for the years 1997-2014, previous source, p. 12.

(2) Manawer Freih Haddad, An Analytical View of the Size of the Arab Labor Force and Its Evolutionary Prospects, Damascus University Journal of Economic and Legal Sciences, Volume Twenty-One, First Issue, 2005, p. 207.

3 Faraj Yahya Abdel Hadi Huso (Labour Force in the Gaza Governorates during the period 1990-2013 and Future Forecasts, previous source, p. 41.

working age ranges from (16-65 years) and who are able and qualified to work.⁽⁴⁾ The labor force is also known as a group of individuals who represent part of the population and not all of it. They are the most important groups in society because they present the results of their work to society. This group is able to work and be productive among the population groups, including employees and job seekers.⁽⁵⁾

2- Manpower:

It is one of the main requirements of the industrial development process, and it constitutes a major obstacle to the industrial development desired by the developing country. The impact of employment on industrial production is determined by the number of employees and their level of efficiency, and the number of employees depends on the size of the population in the country.⁽⁶⁾

Labor is an essential element in the success of industrial production and the industry's needs for the labor used vary according to their types. Some need a large number such as mines and extraction operations, while the need in textile factories is less and the need for labor depends on the degree of technical expertise.⁽⁷⁾ Labor is the human aspect of the production process and is the most important requirements of the industry that affect the attraction and renewal of its sites. The impact of work on the industry site in two respects. The first is the availability of employees in numerical and technical terms and the availability of technical skills. The industry needs skilled and unskilled labor. This is related to the extent to which machines are used and benefited from tactical development. The wages of work in all industries are a high percentage of the total costs of production, although the percentage varies from one industry to another according to the availability of labor and according to its required quality.⁽⁸⁾

3- Female Workforce:

They are females who are able to work and who are actually working and who are between the ages of (15-64 years) and who work outside the home and receive a financial wage for their work.⁽⁹⁾ The female labor force can be defined as the category of women that can be exploited in economic activity. Females contribute their physical and intellectual efforts in any work related to the production of goods and services, whether they work with or without pay. It also means the number of females who work or seek paid work in a society from the beginning of the youth stage to retirement age.⁽¹⁰⁾

The society used to define the work of women inside the home, but there are many factors that prompted women to enter the field of work and assume responsibilities to the male side. Among these factors, Iraq has witnessed since the early 2000s developments in various fields, especially after the establishment of the Council of Ages in 1951 and the increase in its oil resources as a result of the equalization of profits in 1952. This affected the increase in development processes, ages and the expansion of the work base in different sectors, which provided job opportunities for women in a broader manner, as well as the spread of education and the entry of women at different stages and

(4) Saad Ahmed Mohammed Al-Rimi, The size of the return and planning methods and proposed procedures for the return of the workforce in private education for boys from the point of view of planning officials and consultants, Master Thesis, unpublished, Faculty of Education, Umm Al-Qura University, 1419, p. 12.

(5) Sonkol Saud Mohammed, Female Workforce in Kirkuk Governorate, for the period 1997-2015, Master Thesis, unpublished, Faculty of Education for Humanities, University of Tikrit, 2018, p. 12.

(6) Muhammad Azhar Al-Sammak, The Geography of Industry in a Contemporary Perspective, 1st Edition, Dar Al-Yazouri, Amman, 2011, p. 80.

(7) Falah Jamal Maarouf et al., Iraq's Natural, Population and Economic Geography: A Study in Regional Geography, Dajla Publishing and Distribution House, 2016, p. 272.

(8) Abbas Ali Al-Tamimi, The concentration of brick making in Baghdad Governorate, Master Thesis, unpublished, Faculty of Arts, Baghdad, 1976, p. 65.

(9) Ibrahim Abdul Allawi Mohsen Al-Masari, Female Workforce Working in the Government Health Sector in Baghdad Governorate, PhD Dissertation, Unpublished, Faculty of Education, Al-Mustansariya University, 2021, p. 19.

(10) Amna Abdel Hamid Saleh Al-Mansouri, The development of the distribution of the female workforce on the economic sectors in the city of Benghazi, previous source, p. 13.

the destruction of some social barriers that hindered the movement of women within their social environment⁽¹¹⁾

4- Work :

Work means currency, organized management and all industries that require sufficient work and require managers with experience in establishing and managing industrial projects and knowledge of markets and their requirements, as well as employees of a certain type or of all types, skilled, semi-skilled and unskilled.⁽¹²⁾ It can be said that work means a mental or physical effort exerted in the field of economic activity for the purpose of gain in general, or a human mental or physical effort exerted in order to produce economic services or goods.⁽¹³⁾

5- Labor Age Population:

They are all the population whose ages fall at a certain age of work, and there is a difference between the concepts of the working-age population and the labor force, because many of those of working age are considered within the labor force, such as the disabled, students and housewives, and many are not of working age, but they work and are considered within the labor force, such as some young people and the elderly who are over working age and still working.⁽¹⁴⁾

6- Out Labor Force Population:

They are all individuals who engage in work that does not directly contribute to the production of goods and services. In light of this, it includes those who are unable to work, such as the disabled, who cannot perform any productive work due to a chronic illness or disability, as well as students, children at the age of six and the elderly over the age of sixty-five who do not practice productive work.⁽¹⁵⁾

7- The employed:

They are individuals who take up productive work, whether they are gainfully employed, self-employed or working for the family. The worker must have the desire and ability to work and actually work, which is a concept that includes all economically active individuals (labor force) except the unemployed.⁽¹⁶⁾ As well as all individuals who actually do their mental and physical effort in any work related to the production of goods and services within the limits of economic production.⁽¹⁷⁾

8- Unemployed:

They are people who have the ability to work and are looking for it, and those who do not work for reasons beyond their control, represented by the inappropriateness of the nature of work for their competencies and the lack of job opportunities or for any other reason outside their control.⁽¹⁸⁾

(2) Naji Sahm Rasan, *Female Workforce in Wasit Governorate, A Study in Population Geography*, PhD Dissertation, Unpublished, Faculty of Arts, University of Baghdad, 1995, p. 95.

(12) Ibrahim Sharif, Ahmed Habib Rasul, *Industrial Geography*, Dar Al-Resala, Baghdad, 1976, p. 72.

(13) During Salim Abdul Rasul Al-Khazraji, *Manpower in Anbar Governorate and its Development Strategies*, Geoeconomic Analysis, previous source, p. 6.

(14) Munther Abdul Majeed Al-Badri, *Labor Force in Iraq (1957-1977) A Study in Human Geography*, previous source, p. 24.

(15) Mahdi Nasser Hussein Al-Kinani, *Geographical Analysis of the Characteristics of the Workforce in Najaf Governorate for the Period (1997-2013) Using Geographic Information Systems*, Journal of Geographical Research, 19th Issue, College of Education for Girls, University of Kufa, no date, p. 142.

(16) Mahdi Nasser Hussein Al-Kinani, *Geographical Analysis of Manpower Characteristics in Najaf Governorate for the Period (1997-2013) Using Geographic Information Systems*, previous source, p. 110.

(17) Musa Samha, *Population Geography*, United Arab Company for Marketing and Supplies, Cairo, 2008, p. 95.

(18) Munib Mishaan Ahmed Hassan Al-Douri, *Structural and spatial imbalances of the workforce in Salah al-Din Governorate for the period 1987-2007*, previous source, p. 21.

9- Pay:

The wage is defined as the financial return of the work exerted in the production process, and it expresses the price of the labor commodity that the worker provides to the employer during the production process. The wage for the worker is the only source of income or the basis on which he relies on his pension. For the employer, it is considered a cost of factors of production, so he relies on it in determining production and investment.⁽¹⁹⁾

10- Worker Productivity

The productivity of a worker is defined as the ratio between the quantity produced of a commodity or the work used in the production of this quantity or is the relationship between production and a factor in a period of time. It is used to compare industries and regions to determine the period of validity of environmental conditions for work in each of them. Therefore, the productivity of the year is one of the important measures that determine the areas that the industry brings to it. Accordingly, there is a disparity in the distribution of worker productivity from one region to another according to the value of labor wages and technical skill, as well as the age of work, their experiences, and their health, environmental and mental abilities in which they live.⁽²⁰⁾

11- Unemployment:

It is a group of individuals of working age who have the ability to work and are looking for work and do not find it or is the imbalance between the supply and the size of the workforce and the demand or need for manpower. The surplus of manpower is called unemployment and the concept of unemployment according to the International Labor Organization is that every unemployed person is able to work and searches for it and has the desire and accepts it at the level of pay, but to no avail.⁽²¹⁾ Unemployment is also defined as the lack of work in a society and it means the status of the unemployed. However, there are people who are unable to work, such as the sick, the elderly, children and pensioners. On the other hand, there are those who have the ability to work and cannot be considered void of students and exclude those who are able to work and are not looking for it due to its material wealth, as well as those who have a job and are looking for another job with high wages and register themselves as unemployed.⁽²²⁾

Characteristics of the workforce in Babylon Governorate:

First: Ownership of industrial facilities for manufacturing industries in Babylon Governorate and Iraq for the period (2021,2012)

Through the data of Table (13), which shows the industrial ownership of manufacturing industries in Babylon Governorate for the year 2012, the number of public sector establishments reached (13) establishments, which is low compared to the number of establishments for the private sector of (4451) establishments. The number of establishments for the mixed sector reached up to (1) establishments. In Iraq, the number of industrial establishments for the public sector reached (113) establishments, while the number of establishments for the private sector reached (44,438) establishments. In the mixed sector, the number of establishments reached (14) establishments. The reason for this difference in the number of industrial establishments between the different industrial sectors is due to the lack of financial allocations to the public sector compared to the rest of the sectors and the lack of interest and lack of planning between the different sectors.

(19) Mohammed Taqa, Labor Economics, Ithraa Publishing and Distribution House, 1st Edition, Jordan 2008, p. 103.

(20) Hossam El-Din Mohamed Mohamed Ahmed, Geography of Textile Industry for Alexandria Governorate, previous source, p. 111.

(21) Ramzi Zaki, The Political Economy of Unemployment, The World of Knowledge, Kuwait, No. 226,1997, p. 13.

(22) Taher Haider Mardan, Principles of Economics, 1st Edition, Future Publishing House, Amman, 1997, p. 88.

In terms of the number of employees, their number decreased in the public sector in Babylon Governorate, reaching (14,541) employees compared to the private sector, which numbered (15,431) employees, while in the mixed sector, the number of employees reached (19) employees. At the level of Iraq, the number of employees in the public sector also decreased, which was (160,317) employees, while in the private sector, their number increased to (18,1008) employees and in the mixed sector, their number reached (3,917) employees. The reason for the difference between the industrial sectors is due to the difference in the number of industrial establishments, which was reflected in the number of employees.

As for the standard of total wages, the wages of employees in the province of Babylon for the public sector increased to (109,445) million dinars compared to the private sector of (41,929) million dinars. The amount of wages in the mixed sector reached (76) million dinars. In Iraq, the wages of employees in the public sector increased to (166,1112) million dinars, which is a high value compared to the private sector of (657,250) million dinars, while the value of wages for the mixed sector reached (30,964) million dinars. The reason for this difference in wages of employees is due to the difference in the number of employees in the industrial establishment in different sectors and the difference in wages of employees between the public, private and mixed sectors.

As for the factor of the value of production in Babylon Governorate, it decreased in the public sector to (223,865) million dinars, while you notice an increase in the value of production in the private sector amounting to (296,835) million dinars, while the value of production in the mixed sector was (42) million dinars. In Iraq, the value of production in the public sector decreased to (327,529) million dinars, while this value increased in the private sector to (588,2398) million dinars. In the mixed sector, the value of production reached (248,076) million dinars. The reason for this difference in the value of production is due to the difference in the number of industrial establishments, which was reflected in the value of production.

The public sector's share of the value of production requirements in the governorate amounted to (136478) million dinars, while the value of production requirements in the private sector increased to (159261) million dinars. In the mixed sector, it amounted to (27) million dinars, while we find that the value of production requirements for the public sector in Iraq is low at (1502824) million dinars compared to the value of production requirements for the private sector of (2749020) million dinars. As for the mixed sector, it amounted to (19481) million dinars. The reason for this difference in the value of production requirements is due to the difference in the prices of the value of production between one sector and another.

While the VAT of the public sector in Babylon Governorate amounted to (87387) million dinars, which is negative compared to the private sector, as its value rose to (137,574) million dinars. The VAT of the mixed sector was about (15) million dinars. In Iraq, the VAT of the public sector decreased to (1772,705) million dinars, unlike the private sector, as the VAT rose to (3133,378) million dinars, while in the mixed sector it reached (53,264) million dinars. The reason for this difference in the VAT is due to the decrease in the value of production compared to the rise in the value of production requirements.

Table (13) Ownership of the manufacturing sector in Babylon Governorate and Iraq for 2012

Industry size		Number of establishments.	Number of Employees	Wages (Million)	Production Value (Million)	Value of supplies (million)	VAT (Million)
public	Babylon	13	14541	109445	223865	136478	87387

	Iraq	113	160317	1661112	3275529	1502824	1772705
Private	Babylon	4451	/15431	41929	296835	159261	137574
	Iraq	44438	181008	657240	5882398	2749020	3133378
Mixed	Babylon	1	19	76	42	27	15
	Iraq	14	3917	30964	248076	194812	53264

Source: Depending on the Ministry of Planning, Central Statistical Organization, Directorate of Industrial Statistics, Calculator tables for industrial establishments by industrial sector, unpublished data for 2012.

It is noteworthy that in 2021, through Table (14), the number of industrial establishments in the province of Babylon for the public sector reached (208) establishments, while the number of establishments in the private sector increased to (229) establishments. The number of establishments in the mixed sector was (28) establishments, while in Iraq, the number of establishments in the public sector reached (84,022) establishments, unlike the private sector, which numbered (152,596) establishments. In the mixed sector, the number of establishments reached (2134) establishments. The reason for the difference in the number of establishments between the sectors is due to the lack of planning between the industrial sectors and the lack of financial allocations to the public sector. As for the Index of the number of employees in the public sector in Babylon governorate, it reached (28,185) employees, while the number of employees in the private sector increased to (28,326) employees. In the mixed sector, their number was (1,058) employees. At the level of Iraq, the number of employees in the public sector also decreased, reaching (84,022) employees, while their number increased to the private sector, reaching (152,596) employees. The number of employees in the mixed sector reached (2,134) employees. The reason for the difference in the number of employees between the industrial sectors is due to the difference in the number of industrial establishments, which is reflected in the number of employees.

While the total wages of employees in the province of Babylon for the public sector were estimated at (234557241) million dinars, and this value is low compared to the private sector, as the value of wages amounted to (235339741) million dinars, and the mixed sector came with a wage value of (5726258) million dinars, while the value of wages of employees at the level of Iraq for the public sector amounted to (1231812456) million dinars, unlike the private sector, which amounted to (745409122) million dinars, while in the mixed sector it amounted to (32431832) million dinars. The reason for the difference in wages of employees between the different industrial sectors is due to the difference in wages of employees between the sectors, as the wages of employees in the public sector are higher than their wages in the rest of the industrial sectors.

As for the factor of the value of production, it increased in the province of Babylon for the public sector, reaching (4233575967) million dinars, but this factor decreased in the private sector, reaching (4237374540) million dinars, while the mixed sector reached (38880771) million dinars. At the level of Iraq, the value of production for the public sector decreased to (3243138398) million dinars, while the value of production for the private sector increased to (6988398995) million dinars, while in the mixed sector it reached (287342541) million dinars. This difference in the value of production between the different industrial sectors is due to the difference in the number of industrial establishments and the difference in the number of employees in them, which affected the value of production.

While the value of production requirements in Babylon Governorate came with a low value of (3633179403) million dinars compared to the private sector with a value of (6334897741) million dinars, while the value of the mixed sector was about (18202072) million dinars. At the level of Iraq, the value of the public sector decreased to (1472620396) million dinars, unlike the private sector with a value of (3835903676) million dinars, while the value of the mixed sector was (245309183) million dinars. The reason for the difference in the value of production requirements is due to the difference in the value of production between the sectors, as this value rises at some and decreases at others, which affects the requirements of production.

While the VAT at the governorate level amounted to (600396564) million dinars, which is low compared to the VAT of the private sector of (602476799) million dinars, while the mixed sector amounted to (20678699) million dinars, while in Iraq, the VAT also decreased to (1770518002) million dinars, in contrast to the high VAT of the private sector of (3152495319) million dinars, while the VAT of the mixed sector was up to (42033358) million dinars. The reason for the difference in VAT between the sectors is due to the high value of production requirements on the value of production, which negatively affects the VAT.

Table (14) Ownership of the manufacturing sector in Babylon Governorate and Iraq for the year 2021

Industry size		Number of establishments.	Number of Employees	Wages (Million)	Production Value (Million)	Value of supplies (million)	VAT (Million)
public	Babylon	208	28185	234557241	4233575967	3633179403	600396564
	Iraq	53	84022	1231812456	3243138398	1472620396	1770518002
Private	Babylon	229	28326	235339741	4237374540	3634897741	602476799
	Iraq	30416	152596	745409122	6988398995	3835903676	3152495319
Mixed	Babylon	28	1058	5726258	38880771	18202072	20678699
	Iraq	36	2134	32431832	287342541	245309183	42033358

Source: Depending on the Ministry of Planning, the Central Bureau of Statistics, the Directorate of Industrial Statistics, Calculator tables for industrial establishments by industrial sector, unpublished data for 2021.

Second: industrial facilities size for manufacturing industries in Babylon Governorate and Iraq for the period 2012, 2021.

Industrial establishments in Babylon Governorate can be divided in light of the criterion of the number of employees into three volumetric categories, namely large scale industrial establishments in which the number of employees is (30) employees or more, medium industrial establishments in which the number of employees ranges between (10-29) employees, and small scale industrial establishments in which the number of employees is less than ten employees. The industry in Babylon Governorate appeared in the form of industrial establishments of small sizes during the 1950s after that. Industrial development plans were announced and the establishment of Large _ scale industries began in the mid-1960s, after which the industry began to occupy an important area of

economic activity. The province witnessed the establishment of many large, medium and small scale industrial enterprises.⁽²³⁾

From the observation of Table (15), we find that the number of large scale industrial establishments in Babylon Governorate for the year 2012 reached (43) establishments, while the number of establishments for medium industries reached (20) establishments, while the number of establishments for small _ scale industries reached (4402) establishments. At the level of Iraq, the number of establishments for Large _ scale industries reached (681) establishments and the number of medium enterprises reached (218) establishments, while the number of establishments for small _ scale industries decreased to (43666) establishments. The reason for this difference in the number of industrial establishments is due to the lack of financial allocations for Large _ scale industries as a result of the security situation experienced by Iraq and its repercussions on the industry. He noted that the number of employees for Large _ scale industries in Babylon governorate reached (15,976) employees, while the number of employees for medium enterprises reached (456) employees. It was noted that the number of employees for small enterprises decreased compared to large scale industries reached (13,559) employees. At the level of Iraq, the number of employees in large scale industries reached (195696) employees, and the number of employees for medium enterprises reached (3357) employees. The number of employees for small enterprises rose to (146,189) employees. This difference in the number of employees between industries is due to the need of Large _ scale industries for large numbers of employees unlike the rest of industries.

The total wage index for large scale industries in Babylon Governorate was (114,901) million dinars, while the total wage for medium enterprises was (2535) million dinars, while the total wage for small enterprises was (34014) million dinars. At the level of Iraq, the total wage for large scale industrial enterprises was (1843,974) million dinars, while the total wage for medium industrial enterprises was (19846) million dinars, while the total wage for small scale industrial enterprises compared to medium industries increased to (485,496) million dinars. The reason for this difference in the wage statistics is that the industries of the public sector have high wages compared to the rest of the sectors.

As for the factor of the value of production, it was in the province of Babylon for Large _ scale industries (282223) million dinars. In medium industries, the value of production was (11677) million dinars. In small _ scale industries, the value of production was (226842) million dinars. At the level of Iraq, the value of production for large scale industrial establishments was (4652609) million dinars, while the value of production for medium industrial establishments was (18702) million dinars. The value of production for small scale industrial establishments, unlike medium industrial establishments, increased to (4566373) million dinars. The difference factor is due to the fact that the value of production in public establishments is less valuable than the rest of the industries.

As for the index of the value of production requirements, its value in the province of Babylon for large scale industrial establishments amounted to (168,097) million dinars. The value of production requirements for medium industrial establishments was (5378) million dinars. The value of production requirements for small scale industrial establishments increased compared to medium industries, reaching (122,291) million dinars. At the level of Iraq, the value of production requirements for large-scale establishments amounted to (2272437) million dinars, while the value of production requirements for medium enterprises amounted to (108,325) million dinars, while the value of production requirements for small _ scale industries rose to (2065,894) million

(23) Ministry of Planning Central Statistical Organization, Directorate of Industrial Statistics, Department of Large, Medium and Small _ scale industries, unpublished data for 2020.

dinars. This difference in the value of production requirements is due to the difference in the value of production between industries. As for the VAT index, its value for large scale industries in Babylon governorate amounted to (114126) million dinars, while the VAT for medium enterprises amounted to (6299) million dinars. The VAT for small enterprises increased to (104,551) million dinars. At the level of Iraq, the VAT for large scale industries amounted to (2380172) million dinars, while the VAT for medium enterprises was about (78,696) million dinars, while the VAT for small enterprises compared to large and medium enterprises decreased to (2500479) million dinars. The reason for the difference in VAT between the various industrial sectors is due to the difference in the value of production and the value of production inputs, which was reflected in the VAT .

Table (15) Size of industrial facilities for manufacturing industries in Babylon Governorate and Iraq for 2012

Industry size		Number of establishments.	Number of Employees	Wages (Million)	PRODUCTION VALUE (Million)	Value of Supplies (Million)	VAT (Million)
Large Scale	Babylon	43	15976	114901	282223	168097	114126
	Iraq	681	195696	1843974	4652609	2272437	2380172
Medium Scale	Babylon	20	456	2535	11677	5378	6299
	Iraq	218	3357	19846	187021	108325	78696
Small Scale	Babylon	4402	13559	34014	226842	122291	104551
	Iraq	43666	146189	485496	4566373	2065894	2500479

Source: Prepared by the researcher based on: Ministry of Planning, Central Statistical Organization, Directorate of Industrial Statistics, Calculator tables for large, medium and small scale industrial enterprises for Babylon Governorate and Iraq, unpublished data for 2012.

Table(16) shows that in 2021, the number of establishments for Large _ scale industries in Babylon Governorate reached (60) establishments, while this number of medium enterprises decreased to (17) establishments. This number increased in small enterprises, as it reached (3460) establishments. At the level of Iraq, the number of large scale industrial establishments reached (719) establishments, while the number of medium enterprises reached (170) establishments, while the number of small enterprises increased in (25747) establishments. The reason for the difference in the number of establishments is due to the fact that small _ scale industries are easier to establish and less efficient compared to large-scale establishments and spread in various districts of Babylon Governorate.

As for the Index of the number of employees, their number in the province of Babylon for large scale industries increased by (15976) employees, while the number of employees for medium enterprises reached (456) employees, while the number of enterprises for small _ scale industries reached (9298) employees. At the level of Iraq, the number of employees for Large _ scale industries reached (195696) employees, while their number for medium industries reached (3537) employees. The number of employees for small _ scale industries increased to (84,475) employees. The reason for the difference in the number of employees for different industries is due to the different needs of these industries, such as labor and Large _ scale industries, which need many employees.

As for the total wage index for Large _ scale industries, it reached (114901) million dinars in Babylon Governorate. The total wage for medium industries decreased to

(2535) million dinars, while we note that the total wage for small _ scale industries reached (25503308) million dinars. At the level of Iraq, the total wage for Large _ scale industries reached (1843974) million dinars, while the total wage for medium industries reached (16203214) million dinars. The total wage for small _ scale industries rose to (298801546) million dinars. The reason for the difference in total wages between the various industrial sectors is that the public sector has high wages compared to other industries.

In terms of the value of production, Large _ scale industries in Babylon Governorate amounted to (282223) million dinars. In medium industries, the value of production amounted to (11677) million dinars, while this value increased in small _ scale industries to (192727646) million dinars. At the level of Iraq, the value of production for Large _ scale industries amounted to (4652609) million dinars, while the value of production for medium industries amounted to (101853782) million dinars, while the value of production for small _ scale industries amounted to (1939288736) million dinars. The reason for the difference in the value of production is due to the difference in the value of production requirements between different industries.

As for the index of the value of production requirements, its value in the province of Babylon for large-scale establishments amounted to (168097) million dinars. This value decreased in medium industries to (5378) million dinars, while the value of production requirements for small _ scale industries amounted to (107505578) million dinars. At the level of Iraq, the value of production requirements for large-scale establishments amounted to (2274237) million dinars, while the value for medium industries was (60325325) million dinars. In small _ scale industries, the value amounted to (1027279246) million dinars. The reason for the difference in the value of production requirements is due to the difference in the value of raw materials involved in the production process, which was reflected on it.

As for the VAT index, its value in the province of Babylon for large-scale establishments was (114126) million dinars and the value of medium enterprises was (6299) million dinars, while the value of small enterprises was (85222098) million dinars. At the level of Iraq, the VAT of large-scale establishments was (2380172) million dinars, while the VAT of medium enterprises was (41528457) million dinars and for small enterprises (912009490) million dinars. The reason for the difference in VAT between industries is due to the difference in the value of production and sale of production requirements.

Table (16) The size of industrial facilities for manufacturing industries in Babylon Governorate and Iraq for the year 2021

Industry size		Number of establishments.	Number of Employees	Wages (Million)	PRODUCTION VALUE (Million)	Value of Supplies (Million)	VAT (Million)
Large scale	Babylon	60	15976	114901	282223	168097	114126
	Iraq	719	195696	1843974	4652609	2272437	2380172
Medium Scale	Babylon	17	456	2535	11677	5378	6299
	Iraq	170	3537	16203214	101853782	60325325	41528457
Small scale	Babylon	3460	9298	25503308	192727646	107505578	85222098
	Iraq	25,747	83375	298801546	1939288736	1027279246	912009490

Source: Prepared by the researcher based on: Ministry of Planning, Central Statistical Organization, Directorate of Industrial Statistics, Calculator tables for large, medium and small scale industrial enterprises for Babylon Governorate and Iraq, unpublished data for 2021.

Third: - Spatial distribution of manufacturing industries in Babylon Governorate: -

1:- - Spatial distribution of large-scale industries in Babylon Governorate by administrative units for 2012:

Table (17) shows that the number of large scale industrial establishments in Babylon Governorate for the year 2012 reached (43) industrial establishments distributed over the governorates as follows:

Hilla district ranks first in the province of Babylon in the number of these establishments, where the number of (27) large scale industrial establishments, representing (62.8%), and these industrial establishments in the district were distributed among the branches of industry as follows: Food Industries (10) Textile Industries Establishments (1) Chemical Industries Establishment (1) Establishment, Construction Industries (15) Establishment.

As for the Hashemite district, it ranked fourth and last in the governorate in the number of establishments, with (4) establishments representing (9.3%). These establishments were distributed among the branches of industry as follows: three of them are for food industries and one is for construction.

As for Al-Mahwil District, it ranked third in the governorate in the number of establishments, it included (5) large scale industrial establishments, representing (11.6%), and all five industrial establishments were construction industrial establishments. As for Al-Musayyib District, it ranked second in the governorate in the number of large scale industrial establishments, it included (7) large scale industrial establishments, representing (16.3%), and the seven industrial establishments were distributed among the branches of industry as follows: two of them are food and two are engineering, and one is chemical and two are construction. It is noted that although Al-Musayyib District came in second place in the number of large scale industrial establishments in Babylon Governorate after Al-Hillah District and by a large margin, it ranked first in all standards and with percentages of (67.96%), (14.14%), (73.64%), (70.6%), (78.09%), respectively, and the reason is that the large scale industrial establishments located in Al-Musayyib District are very large-scale establishments that include thousands of employees, which result in a very high rise in the rest of standards and by a large percentage of Al-Hillah District, which came in this second rank at 26.89%, (11.9%), (11.75%), respectively.

Table (17): Distribution of Large-Sized Industries in Babylon Governorate by Administrative Units for 2012

Year	1 D-1b (Districts)	Number of establishments.	Number of Employees	WAGES (Million)	PRODUCTION VALUE (Million)	Value of Supplies (Million)	VAT (Million)
2012	Al-Hillah	27	4297	13678	33561	19002	14559
	Hashemite	4	172	531	34600	25771	8829
	Al-Mahawil	5	649	3206	6207	4594	1613

	Musayyib	7	10858	97486	207855	118730	89125
Overall		43	15976	114901	282223	168097	114126

Source: Based on: Ministry of Planning, Central Statistical Organization, Directorate of Industrial Statistics, Calculator Tables for Large, Medium and Small scale industrial Establishments for Babylon Governorate and Iraq, unpublished data for 2012.

2-: - Spatial distribution of large-scale industries in Babylon Governorate by administrative units for the year 2021:

Large _ scale industries are one of the most important industries that work to develop economic activity in Babylon Governorate, and they include manufacturing industries with their branches (food, textile, chemical and construction), while there are no large-scale establishments for other manufacturing branches. Their development has varied according to the standards of industrial activity and branches of industry in the governorate. They can be distributed in the governorate of Babylon for the year 2021 according to administrative units as follows:

The district of Hilla ranked first in the province of Babylon in the number of these establishments, where their number reached (30) large scale industrial establishments, representing a percentage of (50%), and ranked second in both the criterion of the number of employees and the value of wages, and the value of supplies and VAT , with ratios of (26.89%), (11.9%) (11.3), (12.75%) respectively, and ranked third in the criterion of the value of production by (89.11).

As for the Hashemite district, it ranked second in the governorate in the number of establishments, as it reached (18) establishments, representing a percentage of (30%). It also ranked fourth in both the criterion of the number of employees and the value of wages by (1.07%), (0.46%) respectively, and third in the criterion of VAT by (7.7%), and second in both the criterion of the value of production and the value of supplies by (12.25%), (15.3%) respectively.

As for Al-Musayyib district, it ranked third in the governorate in the number of large scale industrial establishments. The district included (7) large scale industrial establishments, representing (11.7%), and the judiciary ranked first in the rest of the standards with ratios of (67.96%), (14.14%), (73.64%), (70.6%), and (78.09) respectively.

As for Al-Mahwil District, it ranked fourth and last in the governorate in the number of establishments, it included (5) large scale industrial establishments, representing a percentage of (8.3%), as well as ranked third in both the criterion of the number of employees and the value of wages by (4.06%), (2.79%) respectively, and ranked fourth and last in both the criterion of the value of production and the value of supplies and VAT by ratios of (2,19), (2.7), (1.4%) respectively, Table (18) and Map (6).

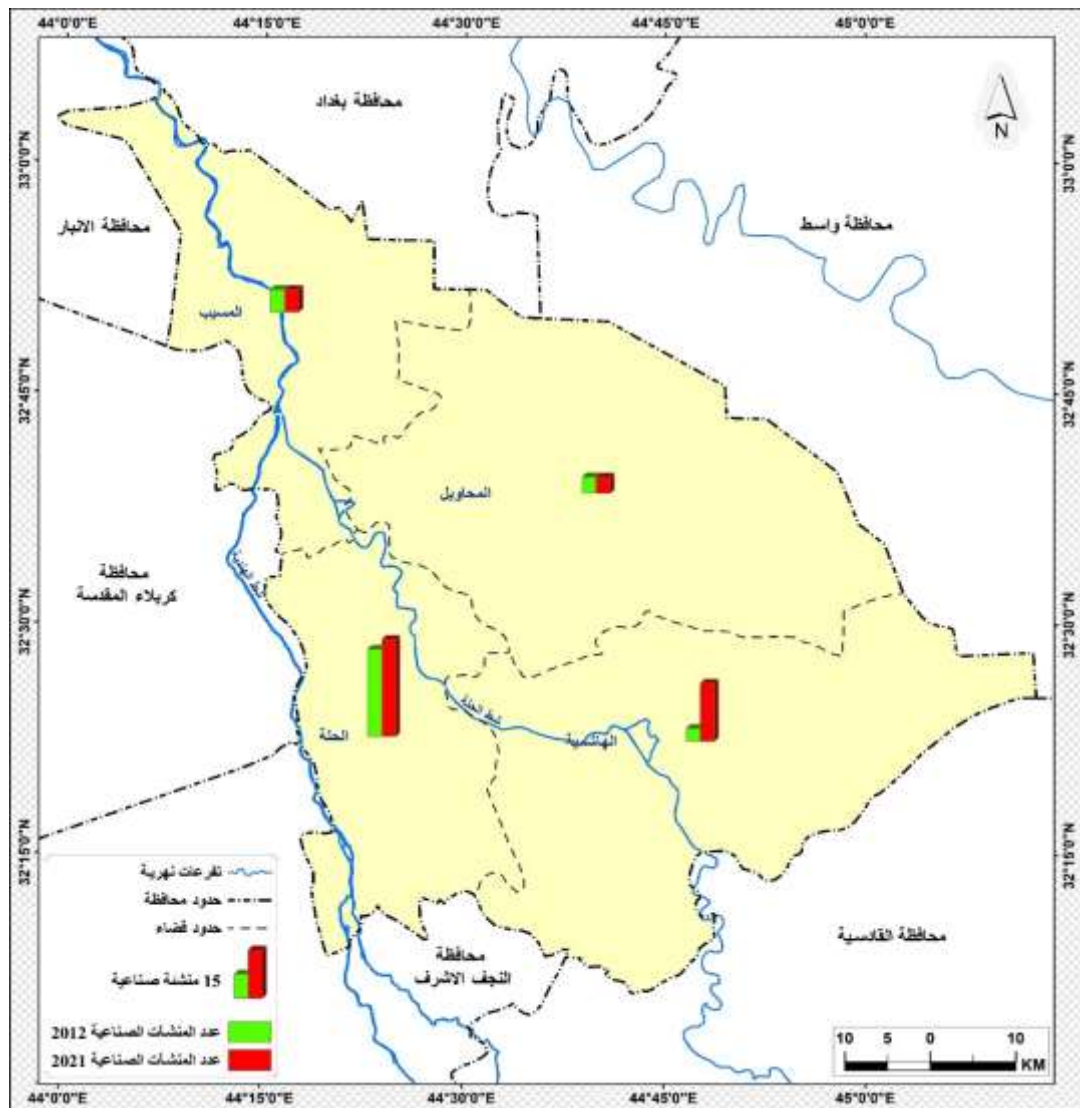
Table (18) Distribution of Large-Sized Industries in Babylon Governorate by Administrative Units for 2021

Year	(Districts)	Number of establishments.	Number of Employees	WAGES (Million)	PRODUCTION VALUE (Million)	Value of Supplies (Million)	VAT (Million)
202	Al-	30	4297	13678	33561	19002	14559

1	Hillah						
	Al hashimi a	18	172	531	34600	25771	8829
	Al-Mahawil	5	649	3206	6207	4594	1613
	Musayyib	7	10858	97486	207855	118730	89125
Overall		60	15976	114901	282223	168097	114126

Source: Based on: Ministry of Planning, Central Statistical Organization, Directorate of Industrial Statistics, Calculator Tables for Large, Medium and Small scale industrial Establishments for Babylon Governorate and Iraq, unpublished data in 2021.

Map (6) Large _ scale industries by Administrative Units in Babylon Governorate for the year (2012,2021)



The main source of the researcher's work is based on: the Republic of Iraq, the Ministry of Water Resources, the Directorate of Public Survey, the Department of Map Production

Conclusions:

1-The study identified the geographical potential system of the province of Babylon, which in its entirety is an environmental and human elements conducive to the development of the industrial reality in it. The advantages of the geographical location of the province qualify it to be an agricultural and industrial area, as its flat surface has provided the opportunity for the population to settle, housing, stability and practice various economic activities.

2- In Babylon Governorate, there is an industrial base that included an industrial establishment for the year 2021. The number of large scale industrial establishments in Babylon reached (60) establishments , while this number of medium enterprises decreased to (17) establishments , and this number increased to small enterprises, reaching (3460) establishments.

3-At the level of Iraq, the number of large-scale establishments reached (719) establishments, while the number of medium establishments reached (170) , while the number of small establishments increased to (5747) establishments.

4-The reason for the difference in the number of establishments is due to the fact that small _ scale industries are easier to establish and less expensive compared to the large-scale establishment, which spread in most districts of Babylon Governorate.

References

- Sharif, Ibrahim, Ahmed Habib Rasul, Industrial Geography, Dar Al-Resala, Baghdad,1976.
- Masari, Ibrahim Abdul Allawi Mohsen , Female Workforce Working in the Government Health Sector in Baghdad Governorate, PhD Dissertation, Unpublished, Faculty of Education, Al-Mustansariya University,2021.
- Al-Mansouri, Amna Abdelhamid Saleh , developed a distribution of the female workforce among the economic sectors in the city of Bnghazi.
- Ahmed ,Hossam El Din Mohamed Mohamed , Geography of Textile Industry for Alexandria Governorate.
- Al-Sisan , Hamid and Kaa , Manpower and its impact on industrial development in Muthanna Governorate for the years 1997-2014.
- Al-Khazraji ,during Salim Abdul Rasul , manpower in Anbar Governorate and its development strategies, a geo-economic analysis.
- Zaki, Ramzi , The Political Economy of Unemployment, The World of Knowledge, Kuwait, No. 226,1997.
- Al-Rimi , Saad Ahmed Mohammed , The size of the return and planning methods and proposed procedures for the return of the workforce in private education for boys from the point of view of planning officials and consultants, Master Thesis, unpublished, Faculty of Education, Umm Al-Qura University,1419.
- Mohammed, Sonkol Saud , Female Workforce in Kirkuk Governorate, 1997-2015, Master Thesis, Unpublished, Faculty of Education for Humanities, University of Tikrit, 2018, p. 12.
- Mardan , Taher Haidar , Principles of Economics, 1st Edition, Future Publishing House, Amman, 1997, p. 88.
- Al-Tamimi , Abbas Ali , The Concentration of Brick Making in Baghdad Governorate, Master Thesis, Unpublished, Faculty of Arts, Baghdad, 1976.
- Huso , Faraj Yahya Abdul Hadi (Workforce in the governorates of Gaza during the period 1990-2013 and future projections.

- Maarouf , Falah Jamal et al., *Iraq's Natural, Demographic and Economic Geography: A Study in Regional Geography*, Dijla Publishing and Distribution, 2016.
- Al-Sammak , Muhammad Azhar , *The Geography of Industry in a Contemporary Perspective*, 1st Edition, Dar Al-Yazouri, Amman,2011,
- TAQA , Mohammed , *Labor Economics*, Ithraa Publishing and Distribution House, 1st Edition, Jordan 2008.
- Haddad , Manawer Freih , *An Analytical View of the Size of the Arab Labor Force and Its Evolutionary Prospects*, *Damascus University Journal of Economic and Legal Sciences*, Volume Twenty-One, First Issue, 2005.
- Al-Badri, Munther Abdul Majeed , *The Workforce in Iraq (1957-1977) A Study in Human Geography*.
- Al-Dawri, Munib Mishaan Ahmed Hassan , *Structural and spatial imbalances of the workforce in Salah al-Din Governorate for the period 1987-2007*.
- Al-Kanani , Mahdi Nasser Hussein, *Geographical Analysis of the Characteristics of the Workforce in Najaf Governorate for the Period (1997-2013) Using Geographic Information Systems*, *Journal of Geographical Research*, 19th Issue, College of Education for Girls, University of Kufa, no date.
- Al-Kanani, Mahdi Nasser Hussein , *Geographical analysis of the characteristics of the workforce in Najaf Governorate for the period (1997-2013) using Geographic Information Systems*.
- Samha, Musa , *Population Geography*, United Arab Company for Marketing and Supplies, Cairo, 2008,.
- Rassan , Naji Saham , *Female Workforce in Wasit Governorate, A Study in Population Geography*, PhD Dissertation, Unpublished, Faculty of Arts, University of Baghdad, 1995, p. 95.
- Ministry of Planning, Central Bureau of Statistics, Directorate of Industrial Statistics, *Calculator Tables for Large, Medium and Small scale industrial Establishments for Babylon Governorate and Iraq*, unpublished data in 2021.