

the efficiency of the spatial distribution of public and private university educational institutions in the holy karbala governorate for the academic year 2019-2020

Turkish Online Journal of Qualitative Inquiry (TOJQI)
Volume 12, Issue 10, October 2021: 1613-1630

The Efficiency Of The Spatial Distribution Of Public And Private University Educational Institutions In The Holy Karbala Governorate For The Academic Year 2019-2020

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Abstract

The education sector is the first and basic pillar in the progress and development of societies, and it is one of the most basic needs of man. Education moves society from a backward and illiterate society to a developed society capable of keeping pace with scientific, technological and cultural progress. Here comes the role of higher education and its institutions to achieve what planners aspire to, and university educational institutions are A large group of these institutions are located in the province of Karbala, as they represent a large population weight, as represented by (9) university institutions, namely (Karbala University, Technical Institute, Ahl al-Bayt University, Al-Hussein College, Al-Zahrawi College, Al-Tuff College, Al-Warith University, Al-Ameed University, University of Zahra), the spatial distribution has been These universities in Karbala governorate reinforced this with geographical maps and the descriptive aspect. The analytical aspect was also used to identify the efficiency of that spatial distribution, through the use of GIS technology in this field, due to its capabilities in analyzing the spatial distribution of the geographical phenomenon. way analysis (standard distance) for university institutions, was used as an analysis of) technology related to the neighborhood or the presumption of Ga t the closest ,(and the study found that these two methods, which is one of the most important means of analysis of geographical, the spatial distribution of these institutions is the distribution of random and scattered any Unbalanced in the province .

Introduction:

Higher education has a great role in the development of countries, as it is one of its basic pillars and has an important and vital place and is one of the basic needs of man. Education is the way to build civilizations and their development, and that development for any country must begin with education, because it represents the first link in the ladder of development and growth, as it is what transmits Society from underdeveloped and illiterate to a developed society capable of keeping pace with scientific, technological and cultural progress, through which scientific, technical and professional cadres are provided that contribute to building society in all its fields, and from here comes the role of higher education and its institutions to achieve what planners aspire to in building cities and states, and Iraq He was one of the first countries in the Arab world to establish these scientific and civilized edifices, so he began to establish the first educational institution in 1908 AD, which is the School of

Law, which was later called the College of Law. It was the first nucleus for the establishment of the first Iraqi university, the University of Baghdad. The governorates of Iraq, but in the study area, it was found that (9) governmental and private university institutions resonated in Karbala governorate, and we will show through this research first the origin, development and progress The spatial distribution of the universities in Karbala governorate, while in the second point we will show the efficiency of the spatial distribution of those universities, and the descriptive approach was relied on in the first point and the quantitative analytical method in the second point through the use of GIS technique(Giss through the program Arc gis 10.4).

First / research problem: The research problem was represented by the following formulation

1. What is the reality of the spatial distribution of public and private university education institutions in the holy governorate of Karbala ? How efficient is it in performing its functions ? What is the amount of variance in its services provided ?

Second / hypothesis of the study: The hypothesis of the study was consistent with its problem

1. The university institutions adopted the pattern of irregular random distribution, which was reflected on the performance of their services provided.

Third, the importance of the study:

The importance of the study lies in the importance of the subject, as the university is a center for training, education, enlightenment, developing ideas and refining talents to obtain specialists in all scientific and intellectual fields, who perform the roles assigned to them based on their specializations to contribute to the upgrading and development of their society and achieve sustainable development, as it derives its importance from the fact that it contributes In the intellectual construction of the human being and the correct scientific guidance that affects the civilizational, cultural, economic, social and urban construction of the country.

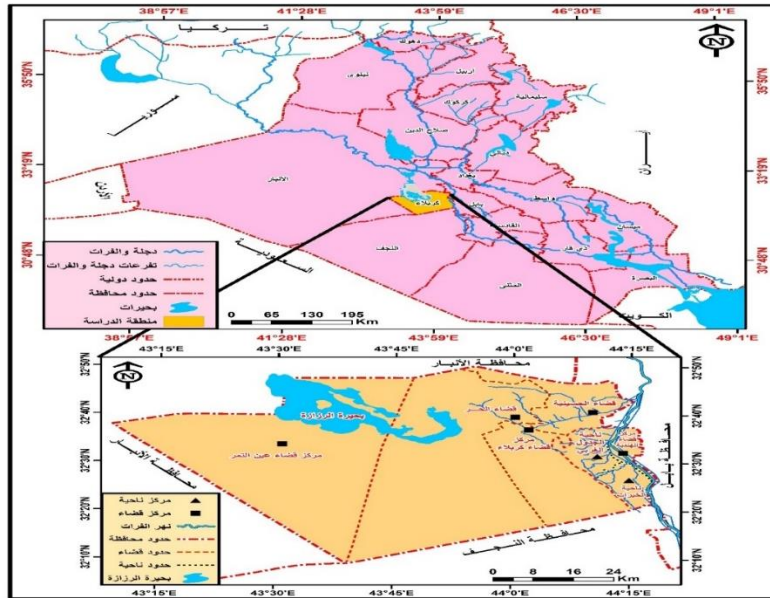
Fourth , the aim of the study : Identifying the efficiency of the distribution of university institutions, as well as providing a picture of the reality of the distribution of these institutions and their relationship to the process of spatial development .

Fifth / Boundaries of the study area :The study area is represented in the Karbala governorate with its entire borders and administrative units according to the districts and sub-districts, and it is located, as in Map (1), between two latitudes ($45^{\circ} 31' - 45^{\circ} 32'$) north, and longitudes ($15^{\circ} 43' - 30^{\circ} 44'$) (to the east. As for its administrative borders, it is bounded by Anbar Governorate from the north and west, from the northeast and east by Babil Governorate ,and from the south by Najaf Governorate, so it is located in the center of western Iraq, and the area of the governorate is (5,034 km²), which represents about (1.2%) of The total area of Iraq is (435052 km² .⁽¹⁾ Karbala province consists of seven administrative units, and by five districts are (Karbala, free, Indian and appointed dates and Husseiniya), and two senses are (good deeds and the western table , (as in the map (2), either the border Temporal Vtmthelt study the

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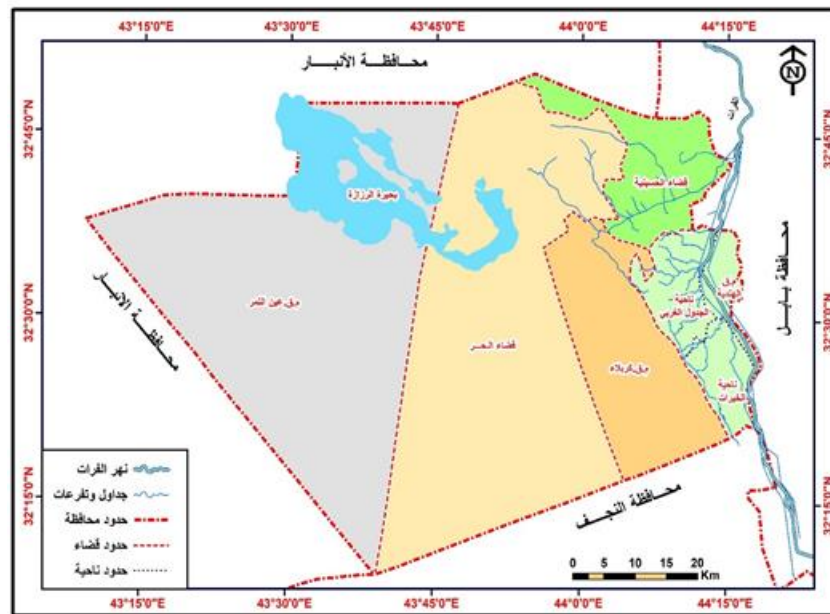
reality of the distribution of the efficiency of university educational institutions (Governmental and private) in Karbala governorate for the academic year 2019-2020 .

Map (1) of the Karbala Governorate, Iraq



1- Source: Republic of Iraq, Ministry of Water Resources, General Directorate of Survey, Map Production Department, Administrative Map of Iraq ,2020 , at a scale of 1:6,500,000 .

2- General Directorate of Survey, Map Production Department, Karbala Governorate Map, 2020, at a scale of 1: 800,000.



Map (2) of the administrative divisions of Karbala Governorate for the academic year 2019-2020.

Source: General Directorate of Survey, Map Production Department, Karbala Governorate map, 2020, at a scale of 1: 50000.

1-1. The emergence and development of university educational institutions in Karbala governorate

Universities are a center for scientific, intellectual and civilized radiation, as they aim to develop society economically, scientifically and culturally through their educational and research functions. On this basis, it works to raise the capabilities of the individual, so it is necessary to provide curricula and techniques that achieve the desired purpose, because the weakness of university studies will have negative effects on many joints of the state ,^([2]) as the subject of production in it targets man and develops his scientific capabilities to be able to carry his message to peoples and nations ,^([3]) and higher educational institutions in the Karbala governorate are represented by a group of these institutions, where the government institutions (Karbala University and the Technical Institute) were represented, while the private university institutions were represented by eight institutions, namely (Ahl al-Bayt University, Al-Hussein College, Al-Zahrawi College, and Al-Taff College). , University Dean, University of Waris, University of Zahra), has been noted that all universities and colleges in the province of Karbala , located in the city of Karbala , or near as a result of a combination of factors, if it represents the city center of attraction as a result of their religious function , making it the center of attraction for students from other governorates, as well as As it represents a population center of gravity, as most of the population is concentrated in it, and therefore the largest number of manpower is based in it, which is what these institutions need, as well as benefiting from the main transportation routes for which the city is a transport node without other administrative units in the governorate .

-1-1-1 Spatial Distribution of University Institutions in Karbala Governorate:

The geographer is one of the most important planners of the city, because geography is one of the most comprehensive sciences in its study and use of services, as urban planning has the final configuration of those services, as well as the rest of the various uses of the land ,^([4]) and that the geography of cities and services has the most prominent role in the study and distribution of service institutions, and since higher education institutions are one of the educational services in the city, our role as geographers is focused on studying the distribution of these institutions, and a comprehensive field survey was conducted for all university education institutions in the governorate Karbala by the researcher to know the reality of the university institutions in the study area, as shown in Table ,(1) Map ,(1) and Figure ,(1)

Table (1) The spatial distribution of public and private university education institutions for the academic year 2019-2020 in Karbala governorate

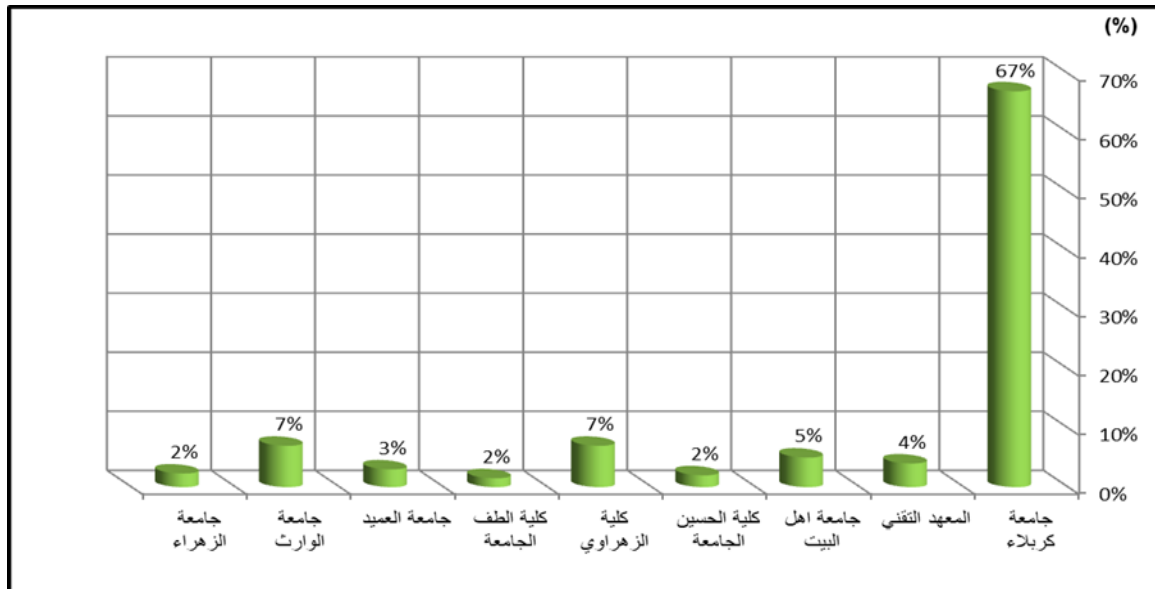
Area/m2	the site	Year Founded	%	number of students	number of sections	Enterprise	NS
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1000000	The first location in the staff district The second location is in the northeast of the city, an area in Freiha	1997-1996	67	25036	36	Karbala University	1
10011	West Table area, northeast of the city	1989-1988	4	1468	8	Technical Institute	2
36920	The first site in the district of Al-Hurr The second location on Najaf-Karbala road	2004-2003	5	2083	7	Ahl al-Bayt University	3
56250	In the south of the city center on the road Karbala - Najaf The second location is on the Karbala-Hilla road	2007-2006	2	863	5	Al-Hussein College	4
121400	Southeast of the city of Karbala on the road Karbala – Najaf	2010-2009	7	2548	4	Al-Zahrawi College	5
12500	In the Al-Jayer area near Al-Abbas Al-Ahly Hospital	2013-2012	1.5	581	4	Children's College	6
46250	Southeast of the city on the road Karbala - Najaf	2018-2017	3	1057	4	Dean University	7
67500	North of the city on the Karbala-Musayyib road	2018-2017	7	2827	9	Al-Warith University	8
50000	North of the city on the road Karbala - Musayyib	2019-2018	2	843	7	Al-Zahra University	9
			99	37306		Total	

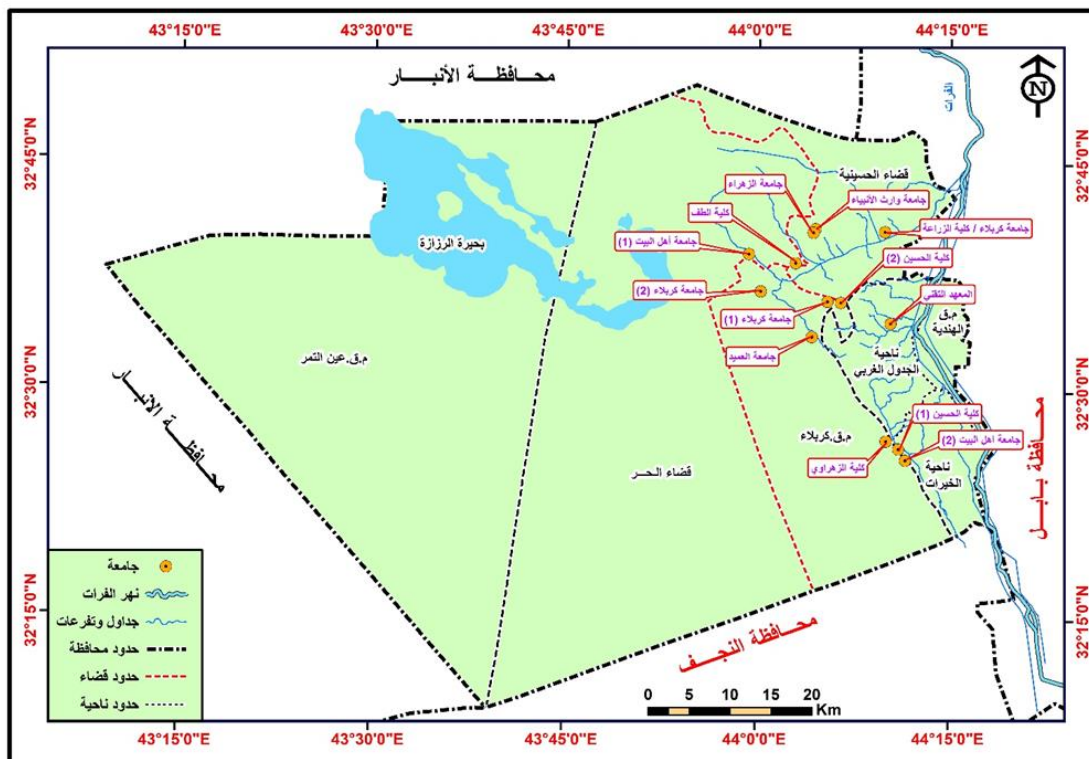
Source: From the researcher's work based on the comprehensive survey of university education institutions, on 3/15/2021.

Figure (1) Percentage of students admitted to university institutions in Karbala for the academic year 2019-2020.



Source: From the researcher's work based on Table(1)

Map (3) of the spatial distribution of university institutions in Karbala governorate



Source: Prepared by the researcher, based on field and satellite study.

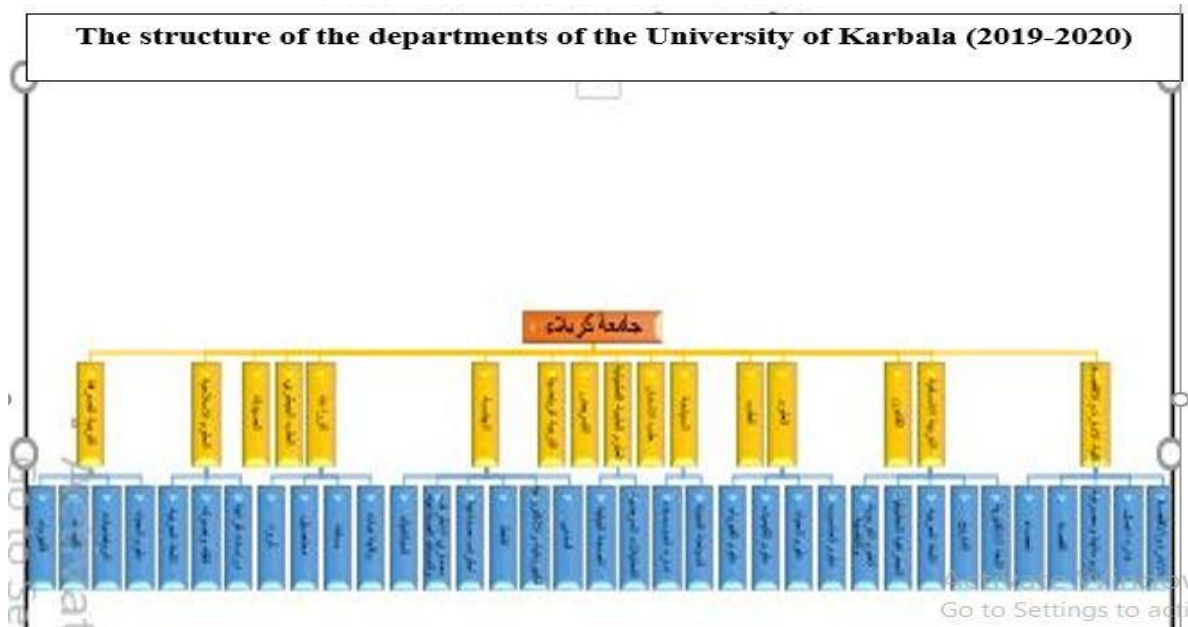
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1-1-1-1. Spatial distribution of public university education institutions

Governmental university institutions in Karbala governorate were represented by (Karbala University and Technical Institute), which are as follows:

1-1-1-1-1 University of Karbala(Karbala University:

It is a governmental institution established in the year ,(1996) as it was affiliated at that time to the University of Babylon, and it included two faculties (the Faculty of Education and the Faculty of Administration and Economics), and in the year (2002) the University of Karbala separated from the University of Babylon and became independent in its own right. The establishment of the university was a clear satisfaction from the people of the holy governorate of Karbala in particular and the neighboring governorates in general, as it solved a number of problems that were facing the student in the first degree and his family such as transportation and housing, as well as the financial costs of those who wanted to complete their university studies from the people of the governorate and having to search for universities in other governorates, and it currently includes (16) colleges, and these colleges ,in turn, are subdivided into departments as in plan ,(2) where students are distributed among their colleges, and the total number of students at the university for the year 2019-2020 is approximately (25,036) male and female students.



The University of Karbala is located in the first building in the staff district and includes the colleges of (medicine, dentistry, pharmacy, and physical education) . As for the second building, it is located in the Fariha area towards the north-east of the city ,which is (4.9 km) away from the holy shrines, which is an important site and is located near From the old city, and this site overlooks the road that connects Karbala governorate to Babylon governorate and constitutes a prominent sign and a function for everyone who passes through that distinctive area, and was chosen to be the basis for urban and urban expansion and growth in that area. and design, and has reached allocated to the University area in

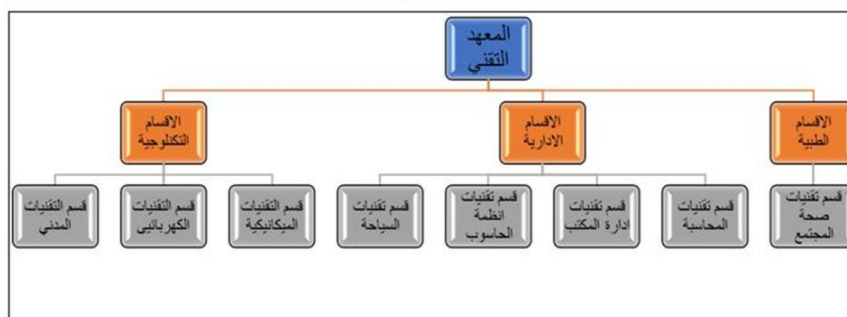
the new design basis about (1,000,000) m², and includes the building of both) Faculty of law, Faculty of administration and Economics, College of Education for human Sciences, College of Education , Pure Sciences, Faculty of Islamic Sciences, Faculty of Medicine Veterinarian , College of Engineering, College of Science, College of Applied Medical Sciences, College of Agriculture , College of Tourism, College of Nursing) and there is also the College of Agriculture located in Husseiniya Street.

2-1-1-1. Technical Institute (Technical Institute):

It was established in (1988) in Karbala ,including the Department of Mechanics and the Department of Accounting upon establishment, after which the institute witnessed a remarkable expansion, both in terms of the number of accepted students or in terms of the number of departments. Parallel to the summer training period, the institute relies in the coursework system for its teaching on practical training rather than on theoretical teaching ,^([5]) as the Institute accepts students from preparatory school graduates in its scientific, literary and professional (commercial) branches , the institute currently includes three departments, namely (technological departments and subdivided into the Department of Mechanical Techniques, the Department of Electrical Techniques and the Department of Civil Techniques), (administrative departments and subdivide into The Department of Accounting Techniques, the Department of Office Management Techniques, the Department of Computer Systems Techniques, and the Department of Tourism Techniques), (the medical departments and include the Department of Community Health Technologies) as in Scheme (3), as the number of students in the institute for the year 2019-2020 was. (1668)

The Technical Institute is located in the Western Jawdil district, towards the north-east of the city of Karbala and away from it (13 km), on the road linking the Karbala-Babylon governorate. Providing technical education that makes the target more distinguished, efficient, quantitatively and qualitatively in order to keep pace with scientific and technical developments. The area of the Technical Institute is (10011 m²) .

Scheme (2) of the structure of the technical institute departments for the academic year 2019-2020.



Source: From the researcher's work based on the Technical Institute ,Quality Assurance Department, 2020.

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2-1-1-1 Spatial distribution of private university education institutions.

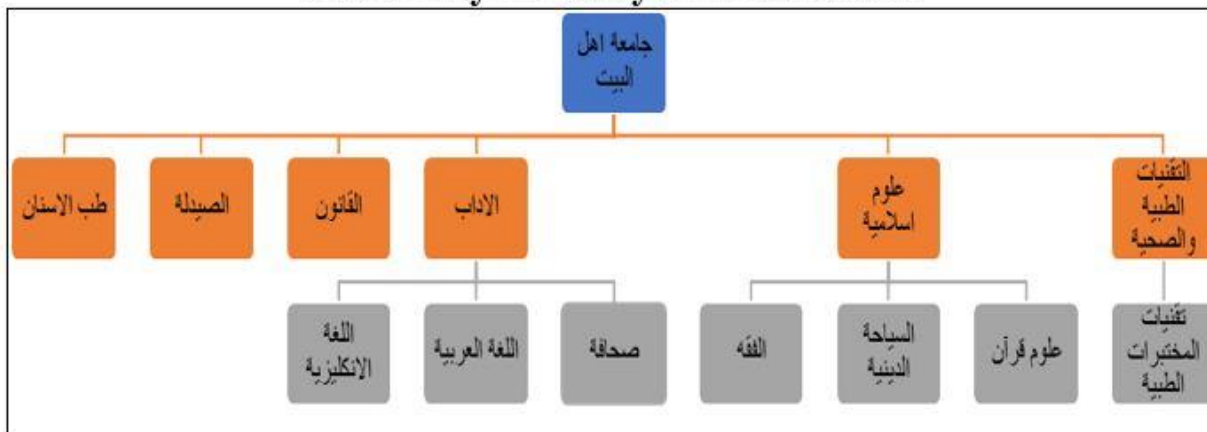
Institutions of private university education in Karbala governorate included (Ahl Al-Bayt University, Al-Hussein College, Al-Zahrawi College, Al-Tuff College, Al-Ameed University, Al-Warith University, Al-Zahra University), which are as follows:

1-2-1-1-1. Ahl al-Bayt University

It is considered the first private university that was established in Karbala governorate during the year (2003), and it submitted a request for recognition to the ministry in the same year, and it was recognized in . (2009) Syed Murtaza Qizwini Representative of the Foundation Sayed Mohsen Baqer Qazwini, so named in honor of the people of the blessing and the house of a prophet (peace be upon them) and Cserva them and their knowledge of heavy ,^[6] the university includes scientific and humanitarian disciplines which six faculties (Dentistry ,Pharmacy and Islamic sciences and literature , law, medical and health technologies (scheme (4), either accept the views that are accepted to study at the university they study (junior high scientific and literary two branches Professional study, except for applied arts, Islamic Sharia departments, teachers’ institutes in the corresponding departments, tourism institutes , (Ahl al-Bayt University is located in Al-Hurr District and is 4.6 km away from the city center, a location relatively close to the city center as it is located to the northwest of the center But it is outside the current basic plan of the city and administratively affiliated to Al-Hur District, and this site does not overlook a main or secondary road, but it is not far from the main street, which made it not benefiting from many of the main services, since the area is agricultural land that changes its use to other uses, and it has another building. It includes the College of Dentistry located on the Najaf-Karbala Road in front of Imam Hussein Airport to be established. The area of Ahl al-Bayt University is about 36,920 square meters .

Scheme (3) of the structure of the departments of Ahl al-Bayt University for the year 2019-2020.

Scheme (3) of the structure of the departments of Ahl al-Bayt University for the year 2019-2020.



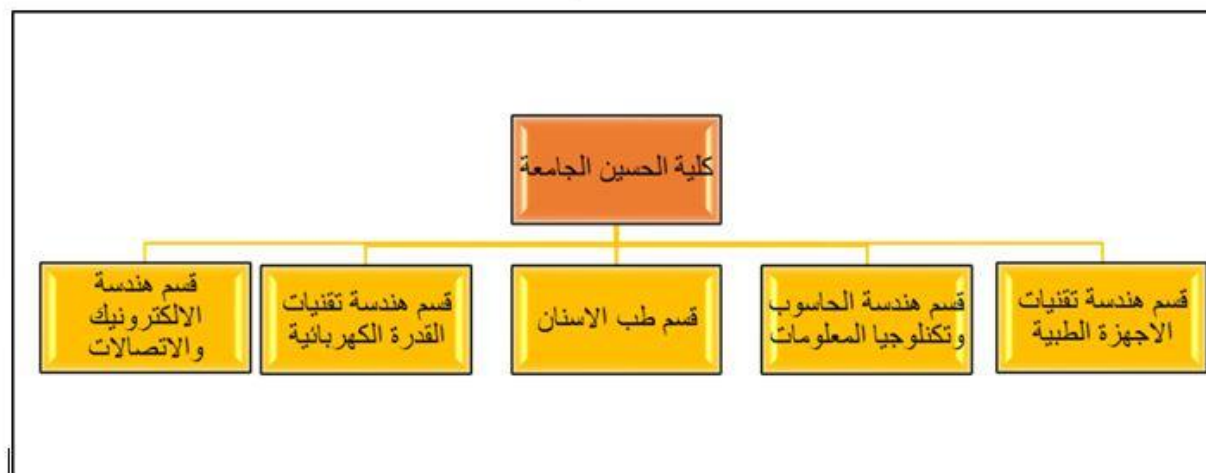
Source: From the researcher’s work based on Ahl al-Bayt University ,Quality Assurance Department, 2020 .

2-2-1-1-1. Al-Hussein College :

It is one of the university colleges, founded in (2006) and recognized in , (2010) the college was established with three departments (Department of Computer Engineering, Electronics and Electrical Power) ,then these departments closed and merged under one department called the Department of Medical Devices in (2010), and is supervised by the Commission The foundation is for her and was named by this name in honor of Imam Al-Hussein (peace be upon him ,^[7] and the college currently includes four departments as shown in Scheme (5), and the college only accepts students who have graduated from the academic preparatory school and the scientific branch exclusively, the college is located towards the south of the city center and is 17 km away from it , as it is located on the left side at the entrance to the city of Karbala on the road that leads to Karbala - Najaf, which is not far from Zahrawi College and also can benefit from the expansion of the city to the fact that the place of the nature of the desert, and it has another building located on the road to Karbala - Hilla only includes the Faculty of Medicine The area of the university is about 56250 square meters .

Scheme (4) of the structure of the departments of Al-Hussein College for the academic year 2019-2020.

Scheme (4) of the structure of the departments of Al-Hussein College for the academic year 2019-2020.



Source: From the researcher's work, depending on Al-Hussein College, on the Statistics and Planning Division, in .2020

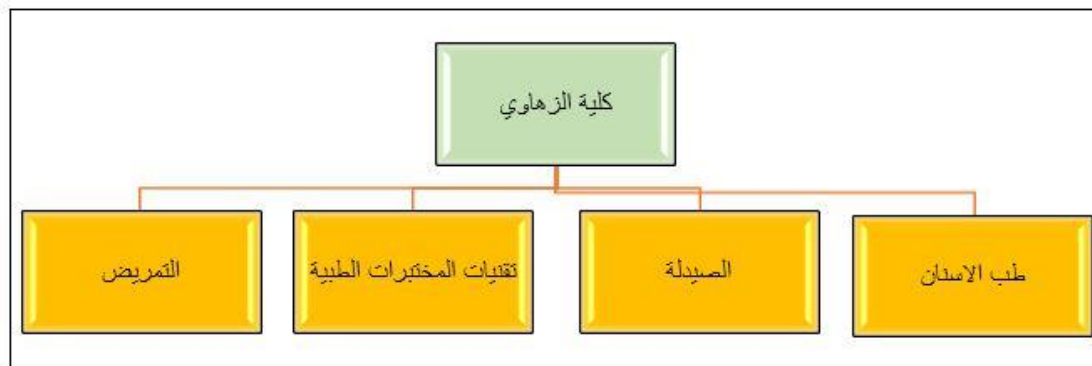
3-2-1-1-1. Al-Zahrawi College

Zahrawi College was founded in the holy city of Karbala with the beginning of the school year (2009) under the Council of Ministers' decision and the letter of the Ministry of Higher Education and Scientific Research Department of National Education, and since the beginning of its inception sought Dean of the college to supplement the higher education movement of elite cadres and medical

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specialties, as it was called) in Ibn Hayyan) but due to its resemblance to another college located in Najaf, its name was changed to Al-Zahrawi ,^{(8]} (and at the beginning of its establishment, it included three departments (Dentistry, Pharmacy and Medical Laboratory Techniques), and at the present time it includes four medical scientific departments (Dentistry ,Pharmacy, Pathological Analysis Techniques, Nursing) and as in Scheme (7), the college is located To the southeast of the city of Karbala and 16 km away from the city center, as it is located on the right side at the exit from the city of Karbala on the main road that connects Karbala governorate to Najaf governorate .It is a good location, as it is far from noise pollution and irrigated congestion inside the city. It is also a nucleus for urban expansion of the city, as it is located in an area of desert nature and at an appropriate distance from the center. It can be used to expand the city away from agricultural lands that suffer from urban sprawl in the city Karbala ,as well as the possibility of expanding the college in the future to suit the nature of the land. The area of Al-Zahrawi College reached (121,400 m)

Scheme (5) of the structure of the departments of Al-Zahrawi College for the academic year 2019-2020 in Karbala governorate



Source: From the researcher’s work based on Al-Zahrawi College ,Statistics and Planning Division, 2020.

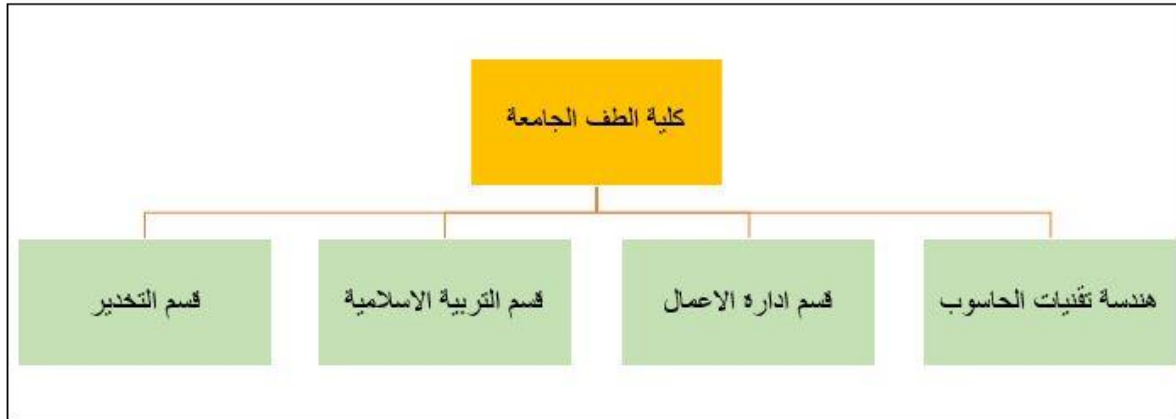
4-2-1-1-1 .Al-Tuff College)

The college was established in (2012) and received official recognition in (2013) and the body responsible for it is the founding body, which includes a number of professors, and was named by this name in relation to the eternal battle of Tuff that took place on the land of Karbala ,^{(19]} at the beginning of its establishment it includes two parts (computer technology department and the Department of Islamic Education) and at the current time of the college four sections as shown in the diagram , (6) either accept the views of the college (junior high scientific and literary two branches, junior professional sections The debate, Islamic studies, teacher institutes, technical institutes, technical institutes with corresponding specializations in the college), the college is located in the Al-Jayer area near Al-Abbas Al-Ahly Hospital towards the southeast of the city and is 2.3 km away from the city center , which is not far from the University of Karbala ,as It is located on a two-way street to the left of

the main road when entering the city of Karbala, which connects the Karbala governorate to the Babylon governorate .The area of the college was about (12,500 m2), and the number of students for the year 2019-2020

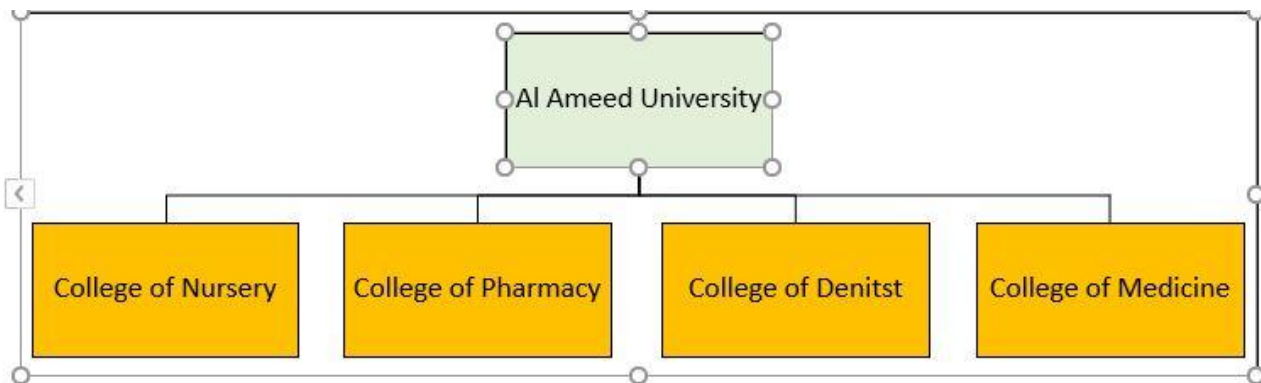
Source: From the researcher's work based on Al-Tuff College ,Statistics and Planning Division, 2020 .

Scheme (6) of the structure of the departments of Al-Tuff College for the academic year 2019-2020 in Karbala governorate



-5-2-1-1 Al-Ameed University (Dean University):

Is a newly established civil University, founded in (2017) It follows the Holy Shrine was named after blessing and named after Abu Fadl Abbas , the fact that Dean is one trophy (peace be upon him), and study the medical group only ,⁽¹⁰⁾ where the university includes four faculties and as shown in Scheme , (9) the university is located towards the southeast of the city , (11 km) from the city center on the road that connects Karbala governorate to Najaf governorate ,which is not far from Al-Zahrawi College and Al-Zahrawi College. Al-Hussein University The area of the university reached (46250 m2), and the number of students for the year 2019-2020 was (1057) .



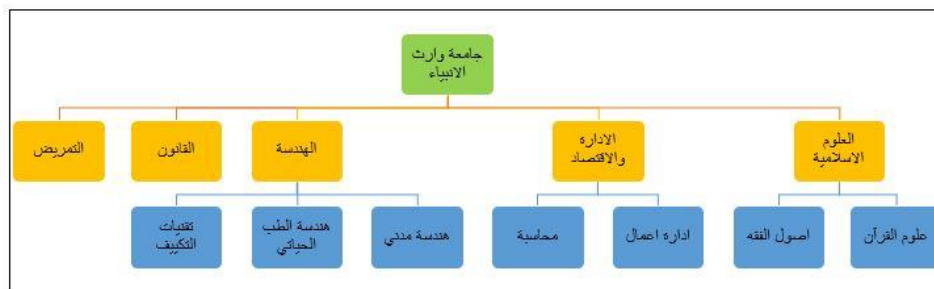
Source: From the researcher's work based on Al-Ameed University ,Statistics and Planning Division, in 2020.

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-6-2-1-1Al-Warith University (Al-Warrith University:(

It is a private university recognized by the Ministry of Higher Education and Scientific Research. It was established by the Holy Shrine of Hussainiya on 7-10-2017, in an effort to find a scientific academic entity that aims to prepare qualified human cadres specialized in all different fields of knowledge to meet the needs of society and development requirements. sustainable social responsibility and interaction with the community and the sincere desire to supply society is characterized by qualified scientific and moral superiority ,^([11]) the university consists of five faculties (Islamic sciences , administration and economics, engineering, law, nursing (scheme (8). 2020 . (2854)

Scheme (8) of the structure of the departments of Al-Wareth University for the academic year 2019-2020.

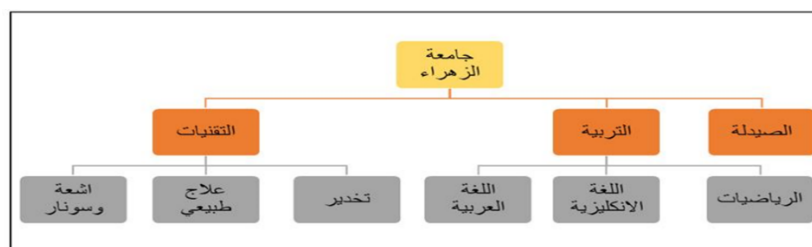


Source: From the researcher’s work based on the University of Warith Al-Anbiya, Statistics and Planning Division, in 2020.

7-2-1-1Al-Zahra University (Al-Zahra University:(

It is one of the newly established private universities ,established in 2019 by the Holy Shrine of Imam Hussainiya. It is considered the first Iraqi private university for girls . It was named by this name in honor of Lady Fatima al-Zahra (peace be upon her), and it includes three colleges (pharmacy, medical technologies and education) as in scheme , (9) University of Zahra towards the north of the city , located (7.5 km) from the center, on the link between Karbala -museib the road has reached the university area (50,000 m2), and the number for the academic year demanded 2019-2020 . (843)

Scheme (9) of the structure of the departments of Al-Zahra University for the academic year 2019-2020



Source: From the researcher’s work based on Al-Zahra University, Statistics and Planning Division, 2020.

2-1. Efficiency of spatial distribution of university education institutions in Karbala governorate:

The descriptive approach remains deficient in giving accurate answers and results. On this basis, the means and methods of quantitative analysis must be used. Modern means will be used, especially after the great development in various scientific and cognitive fields. Provided by GIS software (Gis) through the program Arc Gis 10.4, (And that the use of GIS technology back because it has a strategic dimension to spatial databases and the content of the statistical figures and tables, ⁽¹²⁾ and the analytical processes it provides are the core of work in geographic information systems, as they have the ability to perform complex analyzes in a short period of time limited to several seconds because of the tools it possesses for that, ⁽¹³⁾ (by applying) Arc Tool box, (which means the tool box for the purpose of analysis, and through it the standard distance and the nearest neighbor will be extracted from the public and private university education institutions in the Karbala governorate, which are as follows:

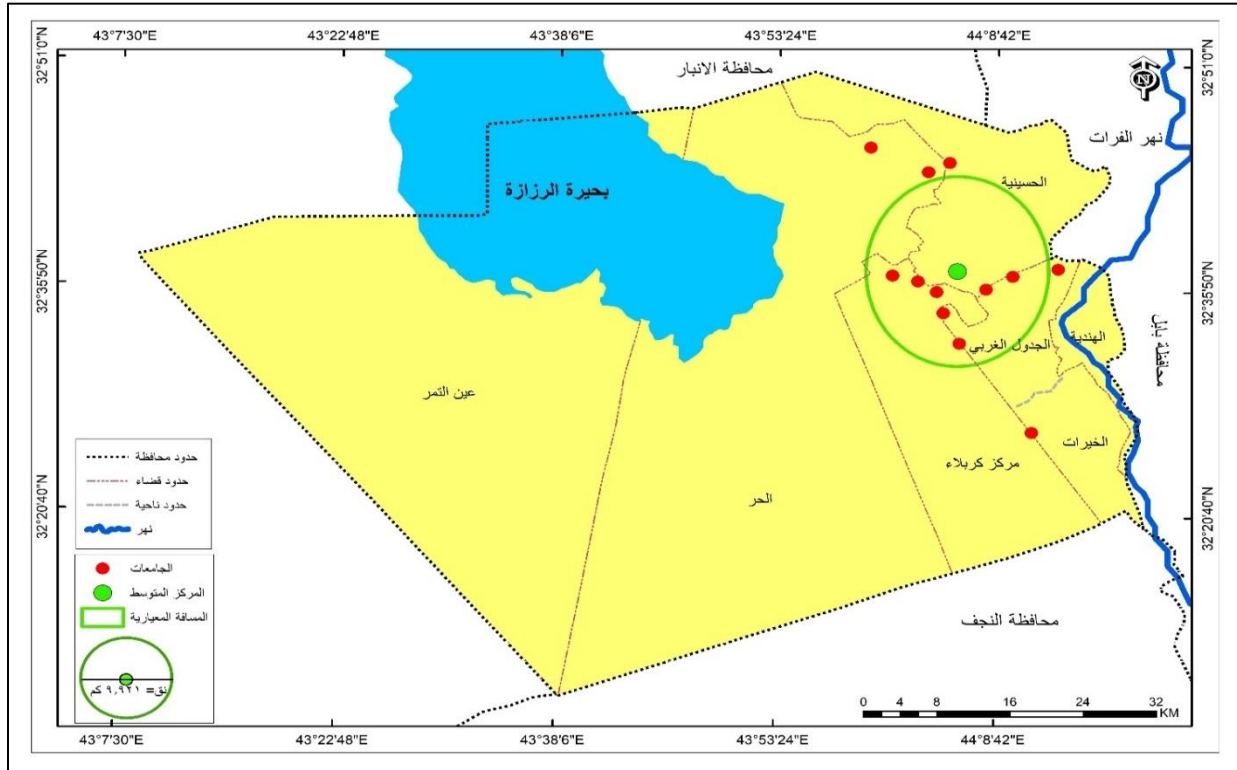
1-2-1. Standard distance analysis:

The standard distance) Standard Distance (is one of the most important measures of spatial dispersion, and this method is one of the most prominent measures of spatial distributions, and is used to measure the extent of the phenomenon's spread from its modified center, and it has been used by many researchers of city geography to find out the extent of the spread of geographical phenomena on the map of spatial distributions, ⁽¹⁴⁾ the program draws a circle on the map that represents the standard distance of a geographical phenomenon and draws the mean center of the circle) Mean Center, (the smaller the drawn circle, this indicates the concentration of the spatial distribution of the phenomenon, but if the area of the circle expands, the spatial distribution is dispersed, that is, the area of the circle is directly proportional to the degree of spread of the spatial distribution, and that approximately (68%) lies within the circle of the standard distance, ⁽¹⁵⁾ the standard distance was used to calculate the extent to which the distances vary between the university institutions' sites, and the results of the program analysis showed that a standard circle was drawn with an area of (19000) m², which represents for us the standard distance of the university institutions sites in Karbala governorate, which is illustrated by map (3). It is located within the circle points (58%) of the points (university institutions) by (7) institutions out of a total of (12) institutions in the study area, and it is inferred that the distribution is scattered and unbalanced in the governorate .

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Map (3) The spatial distribution of university education institutions in Karbala governorate for the academic year 2019-2020

Source :From the researcher’s work through an application) standard distance (on the database of



educational institutions within the program) Arc GIS 10 .4

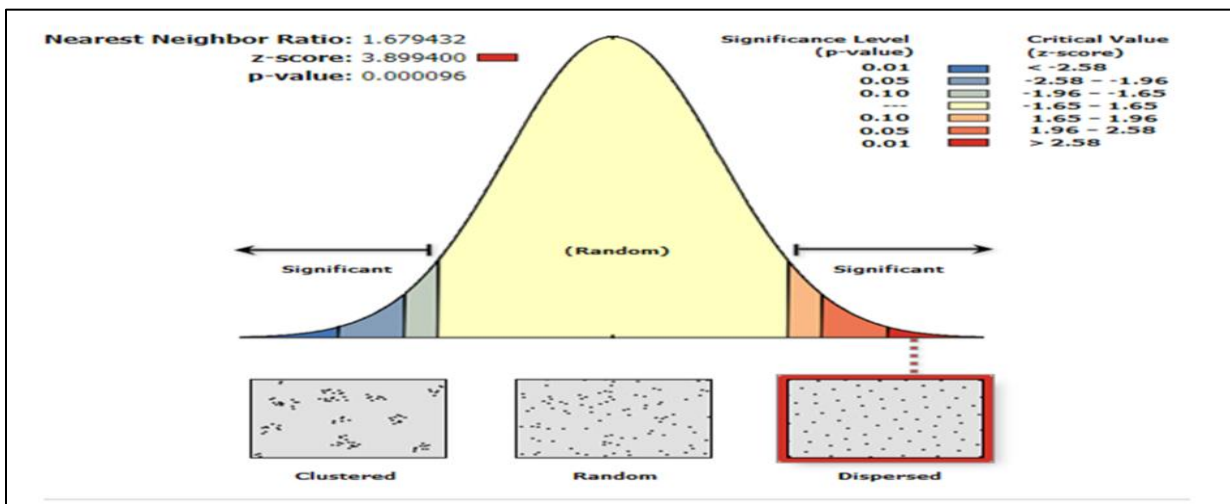
2-2-1. Analysis of the Neighborhood Connection Technique (the Presumption of the Nearest Neighbor):

The nearest neighbor analysis is A verge Nearest Neighbor)Among the most important quantitative methods for revealing the nature of the spatial distribution patterns of geographical phenomena, and this importance comes from the fact that it provides an accurate statistical measure ,^([16]) and the presumption of neighborliness is used in geographical studies to measure the extent to which the locations of points are dispersed around each other and to determine the pattern of their spread, as it can be random, organized or focused, and it is one of the common statistical methods among geographers, because it provides an accurate measurement of the relationship of any phenomenon other phenomena, and many researchers consider it the best and optimal method for analyzing the spatial distribution ,^([17]) and in order to know the pattern on which the distribution of phenomena is located according to the neighborhood relationship, the results of the program analysis show the outputs of the shapes of the point distribution patterns that grade from the irregular divergent dispersion pattern(Dispersed (and its result is close to the number (2.15), to the convergent convergent pattern Clustered) (and its result approaches the number (0), and between them is a random pattern whose result is close to the number

(1), and the closer the result is to the number (2.15), it indicates that the distribution is perfect for the phenomenon. ^([18])

The spatial distribution patterns of university institutions in Karbala governorate will be analyzed using the nearest neighbor technique using a program Gis .v.10.4) (As shown in Figure (2), (where the value of the nearest neighbor in the study of the spatial distribution of university institutions in Karbala governorate reached ,(1.7) meaning that the distribution pattern for this phenomenon is a convergent pattern that tends to random distribution) Random Distribution , (that is, they are distributed unevenly and in an unplanned and unplanned manner, or in other words we find in it the tendency of a group of points tending towards dispersal and spread, while we find the rest of the institutions tend towards regularity and this is clear from the distribution of the faculties) Al-Safwa and Ahl al-Bayt) which are distributed in a close and distant manner About them are colleges (Al-Hussein, Al-Zahrawi and Al-Ameed ,(which are close and also the University of Karbala converges with the College of Tuff, as well as Al-Warith University is located next to Al-Zahra University .

Figure (2) shows the nearest neighbor to the institutions of university education in Karbala governorate



Source: From the researcher's work by applying the presumption of the nearest neighbor within the output program environment Gis.v.10.4

Conclusions:

1- It was found through the research that the Karbala governorate included (9) university institutions, two of which are governmental, namely (Karbala University, the Technical Institute), and (7) private university institutions, namely (Ahl al-Bayt University, Al-Hussein College, Al-Zahrawi College ,Al-Taff College, Al-Ameed University, Al-Warith University, Al-Zahra University), if part of it is concentrated inside the city and part of it is outside it .

2- The university educational institutions in Karbala governorate have developed since the beginning of their establishment in terms of the multiplicity and diversity of their departments and colleges.

the efficiency of the spatial distribution of public and private university educational institutions in the holy karbala governorate for the academic year 2019-2020

3- It was found through the standard distance analysis method that the spatial distribution of these institutions was scattered and unbalanced in the governorate ,as it is located within the circle points (58%) of the points (university institutions) by (7) institutions out of a total of (12) institutions in Karbala governorate .

4- The method of analyzing the neighbor- or nearest-neighbor link technique also showed us that the distribution pattern of this phenomenon is a convergent pattern that tends to random distribution)Random Distribution ,(that is, it was distributed unevenly ,unthoughtfully and unplanned .

Recommendations:

1- The importance of university institutions in all cities of the world, especially Karbala governorate, and the role they play in providing society with its indispensable energies in the events of comprehensive development must compel those in charge of them to develop plans and strategies to take care of these institutions in a more worthy manner.

2- Relying on international standards in choosing the appropriate geographical location for its establishment in order to contribute to the urban development process

3- Some of the transportation roads leading to university institutions in Karbala governorate are not able to absorb the traffic momentum at peak times, so it is necessary to establish additional transportation routes, as well as work on developing the public transport sector, organizing traffic in the city, and establishing car parks near university institutions

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FIFTHLY, PERSONAL INTERVIEWS:

1. An interview with Dr. Maher Hamid Majid, Dean of the Technical Institute in Karbala , on Wednesday, March 15, 2021 .
2. A personal interview with Dr. Abbas Hamid Abdul-Hussein Haider, Director of the Quality Assurance Department at Ahl al-Bayt University, on Monday, 15/1/2021 .
3. An interview with Dr .Khudair Adai Al-Jumaili, Dean of Al-Zahrawi College, dated 11/2/2020.
4. An interview with Dr. Ahmed Miri Hassan, Head of Quality Assurance and University Performance Department at Al-Hussein University College of Engineering, on January 18, 2021.
5. A personal interview with Dr. Maysa Salim Abdel Wahed at Al-Ameed University, Department of Studies and Planning, on 12/5/2020.
6. An interview with Dr. Shafi Hussein Ali, Associate Dean of Al-Tuff College, on Monday 25/1/2021.
7. An interview with Mr. Salah Al -Yasiri, Associate President of Al-Wareth University, on 12/2, 2020 .