The age structure of the female workforce in the Second Karakh Education Directorate at the level of administrative units in 2021

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Abstract

The study examined the spatial variation analysis of the age structure of the female workforce in the second Karkh Education Directorate at the level of administrative units in 2021 and a study of the workforce according to the five-year groups. One of the most notable findings of the study was a spatial discrepancy in the distribution of age groups among the administrative units, where the highest percentage of the age group was recorded (45 - 49) with a ratio of 21.2% in Al-Mamoun district, while the lowest percentage was recorded for the age group (20-24) with a ratio of (0.1%). At the level of the sub-district of Al-Mahmudiya district, the age group (45-49) ranked first with a rate of (19.5%), while the lowest percentage was for the age group (20-24) with a rate of (0.2%). In Al-Rasheed sub-district, the age group (34-39) ranked first with a rate of (20.9%), while the lowest percentage came for the two age groups (20-24, 60-64) with a rate of (0.2%), followed by Al-Yousifiyah sub-district, where the age group (30-34) ranked first with a rate of (25.1%), and the age group (20-24) came in the last place with a rate of (0.5%). As for Latifiya, the age group (30-34) ranked first with a rate of (23.7%), while the lowest percentage was recorded for the age group (60-64) with a rate of (0.3%).

Keywords: *highest percentage, Latifiya, administrative units ,*

Introduction

The study of population composition is of great importance in population research and occupies an important place in the study of population geography, through which we can clarify the qualitative differences in quantitative information provided by population statistics and can be used in many aspects, including demographic, social, economic and cultural, that concern the population's life. The importance of studying the composition of the workforce comes in clarifying the social, cultural, and economic aspects and its ability to invest the resources of the surrounding natural environment, which includes multiple aspects, including the issue of the age structure of the female workforce in the second Karkh Education Directorate, because of its importance in calculating the volume of changes that will occur to the age groups in the future of the workforce,

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as well as its interest in studying the spatial variation of age groups and the characteristics of the labor force.

Research problem

The problem with the study, which is considered to be the first step of scientific research, is a question (is there a spatial variation of the female workforce's age composition in the Second Karakh Education Directorate?)

Study hypothesis

The hypothesis of the study, which is defined as a kind of generalization, a theoretical question, or a possible answer, is not certain but requires research to ensure its validity, as it is considered an initial solution to the problem of the study. Thus, the study is based on a basic hypothesis:

1. There is spatial variation in the age structure of the female workforce in the second Karkh Education Directorate at the level of administrative units in 2021.

The research objective

Search target The study aimed at analyzing the spatial variation of the age structure of the female labor force, interpreting this data, indicating its size and distribution of the female labor force in the second Karkh Education Directorate according to administrative units, identifying the size of the age groups in the second Karkh Education Directorate to understand the future need for the workforce in the study area.

Research temporal and spatial limits

a. Temporal limit

The limits of the temporal research are the study of the reality of the female labor force in the second Karkh Education Directorate in 2021.

b. Spatial limit

The second Karkh Education Directorate is astronomically located between latitudes (33.17 - 33.10) north and longitudes (44.18 - 44.20) east. As for its geographical location, which represents the spatial limit of the study area, over which the educational institutions of the second Karkh Education Directorate extend, located within the boundaries of Al-Ma'moun district and Al-Mahmudiyah district, which occupies the geographical space in the south of Baghdad Governorate, with an area estimated at (1620) km², by (35.5%) of the area of Baghdad governorate amounting to (4555) km². It is bordered to the north by the Al-Mansur district, to the east by the Tigris River, to the west by the Abu Ghraib district, to the south by Wasit and Babil governorates, and the west by Al-Anbar governorate, see map (1).

Study area map (1)

Source: Ministry of Water Resources, General Directorate of Survey. Map of Baghdad Administrative Governorate - at a scale of 1/500000.

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Age structure means the distribution of the population by age, i.e. the distribution of the population by age groups, such as being five-year or ten years, meaning that the length of the group is fixed without distinction between one group and another.

The importance of studying the age structure of the labor force is to determine the size and type of working and productive groups by identifying indicators of the individual's ability to give as well as the degree of vitality in drawing distribution images. The study of the labor force is one of the important topics, especially if we know the size of these forces and their structure according to age groups, as well as their distribution according to occupations and other characteristics. The labor force is one of the most important sources of wealth regardless of the degree of civilizational development and the degree of its economic growth, as it plays a major and prominent role in any activity by influencing the developmental orientation in the implementation of development plans, and contributes to the possibility of opening areas of social and economic interaction for women.
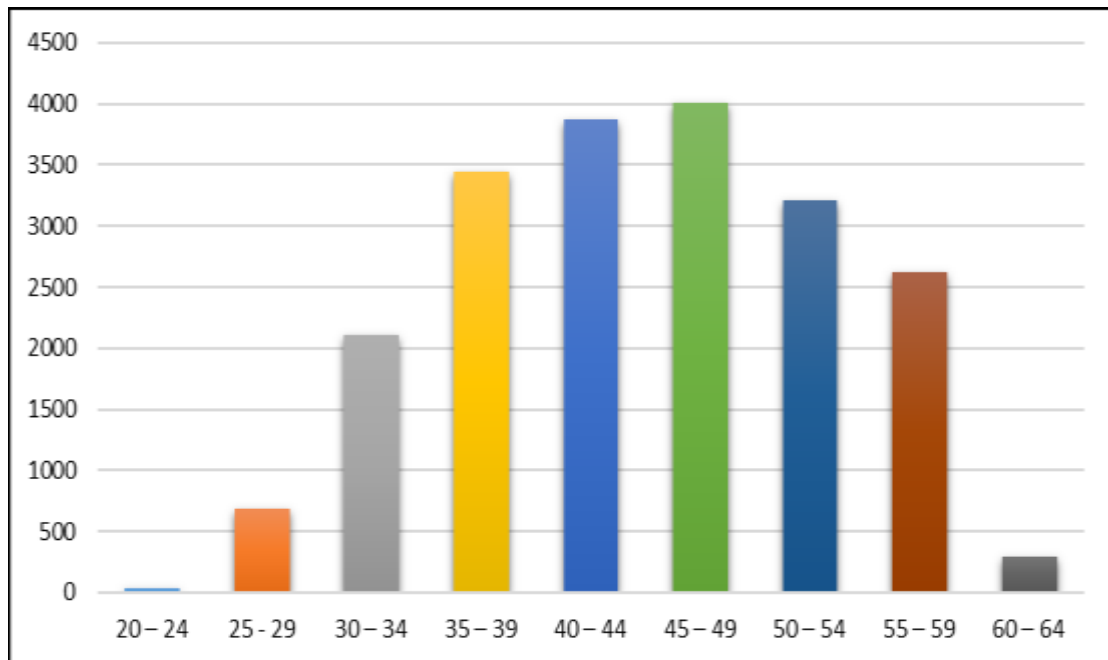
Use of the numerical distribution method of female forces working in the Second Karakh Education Directorate by age indicates the size of the female workforce in the same age group, as the total female force in the Second Karkh Education Directorate and each administrative unit, then compare these sizes with the female labor force according to the age groups that correspond

to them in other administrative units. To study and analyze these sizes, the ages of working females in the second Karkh Education Directorate were divided into five-year categories for easy comparison.

Table 1: Number Distribution of Female Workforce in the Second Karakh Education Directorate for 2021 by Age Group and Birth Year

Age group	Birth	Total
24 − 20	2001 − 1997	34
29 - 25	1996 − 1992	683
34 − 30	1991 − 1987	2103
39 − 35	1986 − 1982	3445
44 − 40	1981 − 1977	3871
49 − 45	1976 − 1972	4007
54 − 50	1971 − 1967	3212
59 − 55	1966 − 1962	2625
Total	20274	

Source: the Republic of Iraq, Ministry of Education, Second Karkh Education Directorate, Planning, and Statistics Department, unpublished data for the year 2021.

Figure (1) Distribution of the female labor force in the second Karkh Education Directorate for the year 2021 according to age groups

Source: Table (1).

We note from Table (1) and Figure (1) that the female workforce in the Second Karkh Education Directorate starts from the age of (20) years and above because all workers in the Second Karkh Education Directorate are graduates of colleges, institutes, trade and industry preparatory schools, and other supporting colleges. Therefore, the labor force was determined within the age groups from 20-64 years only.

The age group (45-49) came in first place and numbered (4007) people in the second Karkh Education Directorate, while the age group (40-44) came in second place and numbered (3871) people. These two categories were the highest in number, due to the great demand in the eighties of the twentieth century for government jobs in that period, including education, which contributed to the survival of these ages in dominating the first ranks. These categories were appointed during the period (1985-1995), and the country was witnessing economic and political stability during this period, and after the 2003 period, the political system was changed by the United States and a new temporary political system was formed. The country witnessed political and economic turmoil, which greatly affected the continuation of the appointment of the staff of the Ministry of Education, and there were appointments, but in weak proportions, according to the movement of the staff in the process of deletion and creation. As for the third and fourth ranks, they are the age groups (35-39, 50-54), respectively, as their numbers reached (3445, 3212) people, according to the order, followed by the age groups (55-59, 30-34), respectively, in the fifth and sixth ranks. Their numbers reached (2625, 2103) people, according to the order, while the age groups came in the penultimate ranks (25-29, 60-64), as their numbers reached (683, 294) people, according to the order. As for the last rank, it was for the age group (20-24), where their numbers reached (34). The reason for that decrease is due to the lack of appointments on the staff of the Ministry of Education.

The relative distribution of the workforce by age group and at the level of administrative units gives us a more accurate picture in determining which administrative units have a decrease or rise in the proportion of the workforce per age group, making it easier for decision-makers to develop a future workforce needs plan in the study area.

As for the level of administrative units, each administrative unit will be studied separately, and it included five administrative units, which are as follows:

1. Al Mamoon

We notice from the data of Table (2) and Map (2) that there is a spatial variation for the age groups at the level of the Al-Mamoun district, and that the age group (45-49) came in first place with a relative importance of (21.2%). The reason for her obtaining the first rank is that these ages maintain their proportions because, in the recent period, the percentage of appointments has

decreased significantly. Therefore, we note the high percentage of this age group and its ranking first. In second place came the age group (40-44), with a relative importance of (19.8%). The age group (50-54) ranked third, with a relative importance of (17%), while the age group (35-39) ranked fourth, with a relative importance of (15.9%), while the age group (55-59) ranked fifth, with a relative importance of (14.6). As for the last ranks, each of the age groups came (30-34, 25-29, 60-64, 20-24), respectively, with a relative importance of (7.7%, 2%, 1.7%, 0.1%). The two age groups (60-64, 20-24) got the lowest categories, and this is due to several reasons. The first age group is the oldest in the labor force. Their births are confined to the years (1957-1961), and most of them left the job due to either death or poor health, as a result of which they were referred to retirement. Therefore, we notice a low percentage compared to the rest of the age groups within the Al-Mamoun district. The second age group of these ages, it falls within (1997-2001) and this age group also has a low rate, due to the lack of available job opportunities in the Second Directorate of Education of Karkh. In addition, old graduates from colleges and institutes whose ages are older than this age group are accepted according to preference. Therefore, we note that this age group is still among the last ranks in the age groups.

Table (2) Distribution of the female workforce by relative importance and age group in administrative units in 2021

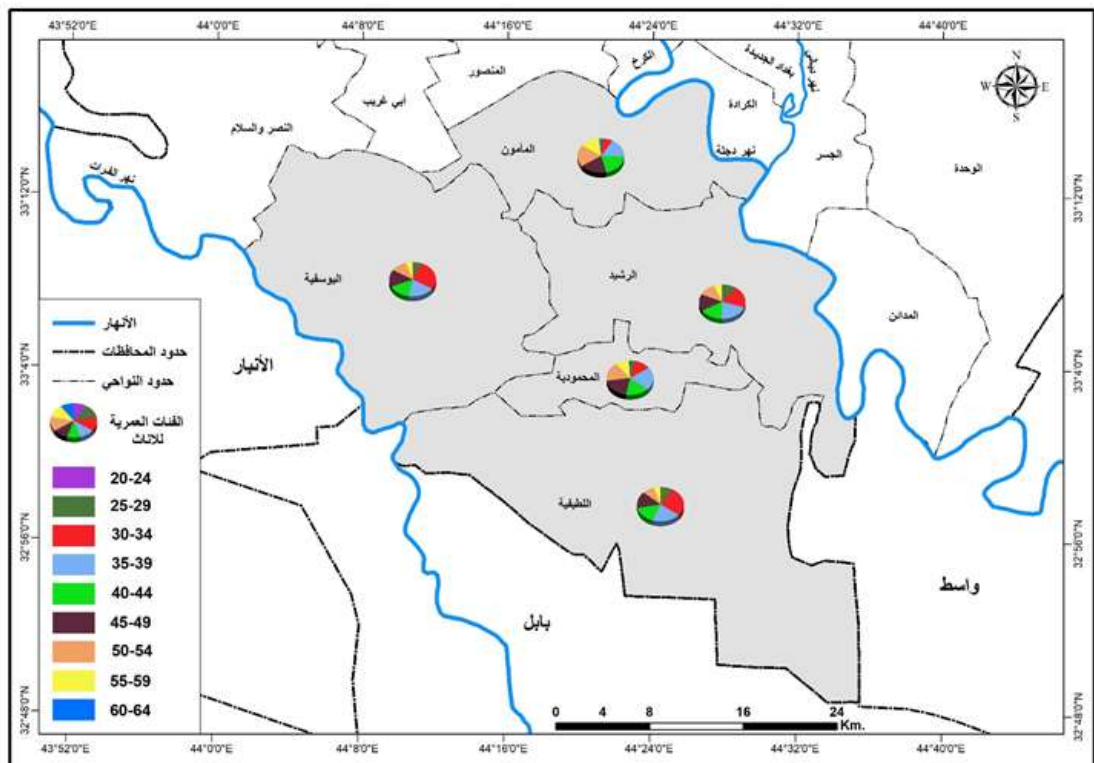| Administrative units	-20 24	-25 29	-30 34	-35 39	-40 44	-45 49	-50 54	-55 59	-60 64	Total
Almamun	0.1	2	7.7	15.9	19.8	21.2	17	14.6	1.7	100
Mahmudiyah	0.2	3.9	12.5	18.4	18.6	19.5	15	10.7	1.2	100
Alrashid	0.2	11.6	17.8	20.9	17.2	12.9	11.9	7.3	0.2	100
Alyusfia	0.5	.7.1	25.1	20.7	15.6	13.1	11.4	5.8	0.7	100
Altayfia	0.4	10.2	23.7	22.4	15.4	13	8.9	5.7	0.3	100

Source: Appendix No. (1)

2. Mahmoudiyah

Through the data of table (2) and map (2), there is a discrepancy in the proportions of the age groups in the district center of Mahmoudiya, and the age group (45-49) came in first place with a relative importance of (19.5%). This same group ranked first in the Al-Mamoun district, as it maintained its percentage. Therefore, we note that it has a high percentage compared to the rest of the age groups within the administrative unit, while the age group (40-44) came in second place, with a relative importance of (18.6%). As for the third place, it was for the age group (35-39), with a relative importance of (18.4%), while the age group (50-54) came in fourth place with a relative importance of (15%), while the age group (30-34) ranked fifth, with a relative importance of (12.5%). As for the rest of the age groups, they came in the last ranks, which are (55-59, 25-29, 60-64, 20-24), respectively, with a relative importance of (7.3%, 3.9%, 1.2%, 0.2%), in the order.

3. Al-Rasheed

As for Al-Rasheed sub-district, there is a discrepancy in the proportions of the age groups, and we note from the data of Table (2) and Map (2) that the age group (34-39) ranks first and has a relative importance of (20.9%) in the highest percentage of the age group of the female labor force in Al-Rasheed district. This is due to the appointment by the Ministry of Education in 2019, and it received the workforce that contributed to the increase in the percentage of the age group compared to the rest of the groups in this administrative unit. In second place came the age group (30-34) with a relative importance of (17.8%), while in third place came the age group (40-44) with a relative importance of (17.2%), while the fourth rank went to the age group (45-49) with a relative importance of (12.9%), while the fifth rank (50-54), with a relative importance of (11.9%). As for the last ranks, it was the share of the age groups (25-29, 55-59), respectively, with a relative importance of (11.6%, 7.3%), according to the order. As for the last two categories (20-24, 60-64), they got the same percentage, amounting to (0.2%).

Map (2) Distribution of the female labor force by relative importance and age group in administrative units in 2021

Source: Table (2)

4. Yusufiyah

Through the data of Table (2) and Map (2), there is a discrepancy for the age groups at the level of Al-Yousifiyah district, where the age group (30-34) came in the first place with a relative importance of (25.1%), while the age group (35-39) came in the second place with a relative importance of (20.7%). These two categories came in the first and second ranks because they are rural areas, where in the past there was a law obligating the employee in the first period of his appointment to serve in remote and rural areas, and this administrative unit is considered the most remote area in Baghdad governorate, therefore, the percentage of this age group increased due to its ability to bear the nature of the region and its distance from the center. In third place came the age group (40-44), with a relative importance of (15.6%), and in fourth place was the age group (45-49), with a relative importance of (13.1%), while the age group (50-54) came in fifth place, with a relative importance of (11.4%). In the last ranks came the age groups (25-29, 55-59, 60-64, 20-24), respectively, with a relative importance of (7.1%, 5.8%, 0.7%, 0.5%), in order.

5. Al-Latifiyah

The data of the previous table and map (2) indicate a discrepancy in the percentage of age groups in Al-Latifiyah. The age group (30-34) ranked first with a relative importance of (23.7%), while the second place went to the age group (35-39) with a relative importance of (22.4%), while the age group (40-44) came in the third place with a relative importance of (15.4%), and the age group (45-49) ranked fourth, with a relative importance of (13%), while the age group (10.2%) ranked fifth. In the last ranks were the following age groups (50-54, 55-59, 20-24, 60-64), respectively, with a relative importance of (8.9%, 5.7%, 0.4%, 0.3%), respectively. We note that these two age groups (30-34, 35-39) got the first and second ranks in the districts of (Al-Rashid, Al-Yousifiyah, Al-Latifiya).

Results

1. The age group (45-49) ranked first in Al-Mamoun district and Al-Mahmudiyah district center with a rate of (21.2%, 19.5%), while the age group (20-24) also came in the last place in Al-Mamoun district and the center of Al-Mahmudiya district, with a rate of (0.1%, 0.2%).

2. The age group (35-39) ranked first in Al-Rasheed sub-district with a rate of (20.9%), while the lowest percentage was for the age group (20-24, 60-64) with a rate of (0.2%).

3. The age group (30-34) ranked first in the administrative units (Al-Yousifiyah and Al-Taifiyya) with a rate of (25.1%, 23.7%) respectively. In the last ranks came the age group (20-24, 60-64), with a rate of (0.5%, 0.3%), respectively.

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