

## **Analysis of the population pyramid in Iraq in 2019 and its impact on the strength of the state**

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### **Abstract**

The study of age groups is an important introduction to the strength of the human state, represents one of the fundamental strengths of the state, being the population, especially the active and productive age groups. They are the pillars of the state's power and the engine of various economic and military activities, age groups are expressed by the population pyramid, expressed graphically, as the population pyramids vary between countries. In Iraq, the population pyramid is classified as a young pyramid, as a result of the increase in age groups represented by young people under 15 years and the working age population (15-64 years), this was one of the indicators of the state's strength, so it requires preparing strategic and future plans for the investment of this human wealth and according to a specific time period .

**Keywords:** population pyramid, Iraq, 2019, the state strength.

### **Introduction**

The age structure has an impact on the strength of the state, during key indicators, the most important of which are the population pyramid age groups. The broad base of the pyramid represents a rise in the proportion of young people (0-14 years), it means there is a reserve of future manpower, reflected in the economic and military reality of the state. Countries differ in their age structures and population pyramid, it was caused by the dynamism of the population. Countries with high economically active population, one of the young countries as it has the ability to equip armies with combat elements, providing the labor needed by the labor market, distinguishes the population pyramid in Iraq, as there was a rise in active productive groups aged between (15-64 years), reflects on Iraq's human strength, possesses a human wealth that is reflected in his strength in the event of his investment.

#### **First: The research problem:**

What was the shape of the population pyramid in Iraq and how does it affect the strength of the state?

#### **Second: The research hypothesis:**

The age structure includes main indicators represented in the population pyramid, the shape of the population pyramid affects the strength of the state. The young population pyramid includes a rise in the categories of young people (less than 15 years), it was one of the strength indicators of the abundance of human reserves in the future, as well as the population pyramid that includes a rise in the active groups

(15-64 years), it was an indicator of the strength of the state due to the presence of an abundance of human power, required by the labor market and military aspects.

**Third: The importance of the study:**

The importance of the study came in order to identify the shape of the population pyramid in Iraq and its impact on the strength of the state.

**Fourth: Research Objectives:**

Analyzing the population pyramid in Iraq, whether at the urban or rural level.

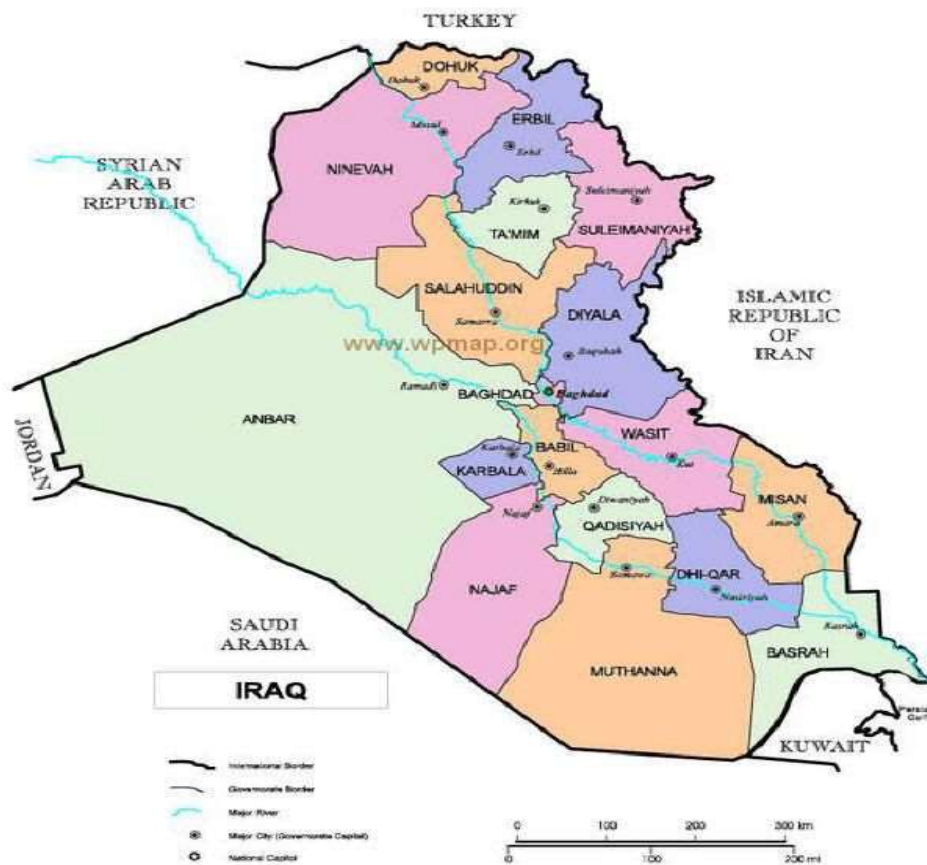
**Fifth: Research Methodology:**

In this study, the researcher relied on the force analysis method.

**Sixth: Limitations of Research:**

The limits of the study were represented by the spatial boundaries of the state of Iraq, whose area is (435052 km<sup>2</sup>). As for the astronomical location, Iraq is located between two latitudes (37°-29° north) and longitudes (38-48° east) (1).

**Map 1: Location Iraq astronomer.**



Source: The two researchers based on the Republic of Iraq, Ministry of Water Resources, General Authority for Survey for the year 2019.

### **Seventh: The structure of the study**

The research was divided into five main demands, the first dealt with the concept of the population pyramid, the second dealt with the population pyramid of Iraq in 2019, and the third and fourth specialized in studying the Iraqi population pyramid according to the environment, urban and rural.

#### **First: The concept of the population pyramid**

The population pyramid represents the best way to find out the variation in the age and gender structure and according to age groups in temporally and spatially (2). It is expressed graphically showing the variance in age and gender between the population of different countries, as well as clarifying the size of the change of the population of the state in terms of age structure. The mechanism of the graph for this demographic component is represented in the form of two main axes, one vertical and the other horizontal.

**Vertical axis:** indicates age and gender, meaning age and gender composition

**Horizontal axis:** the size of the age groups, and sometimes percentages, are fixed on it.

Males take the left side of the vertical axis of the pyramid, while the right side is represented by females (3).

#### **Second: Types and characteristics of the population pyramid:**

The population pyramid includes three main types, which are as follows (4):

##### **1. The young population pyramid:**

which was represented by the developing countries, as it is characterized by the widening of the base of the pyramid as a result of the high growth rates that result in the rise of young people (0-14 years) and the age groups decreasing with height, especially the elderly group (65 years and over).

##### **2. Mature population pyramid:**

This type was represented by developed countries that follow a population policy aimed at reducing growth rates, as the active productive groups (15-64 years old) rise in this type and this is one of the indicators of strength for the country that has a mature population pyramid

##### **3. The elderly population pyramid:**

This pyramid was concentrated in some European countries that have adopted severe population policies, which have contributed to reducing births to the maximum extent, followed by a decrease in the rate of productive groups (15-64 years) and an increase in the rates of the elderly group (65 years).

#### **Third: The population pyramid of Iraq for the year 2019:**

Table (1) and Figure (1) show the nature of the population pyramid in Iraq, as we deduce the following:

There was an increase in the relative importance of males and females of working age for the age group (15-64 years), as their percentage reached (28.24%) for males and the percentage is close to females (28.21%), as for the category of young people, the relative importance of males reached (20.84%), while the percentage of females reached (19.62%), and the last category represented by the elderly category, which reached the relative importance of males (1.45%), while for females the percentage reached (1.63). Despite the decrease recorded by the category of young people, it is still high compared to the countries of the developed world, and this rise has repercussions on the level of dependency in society, rises with the rise in the rates of the first groups represented by young people from (0-14) years and the elderly groups (65 and over). The increase in the dependency rate also has repercussions on social levels (5). We conclude from this that the population pyramid of Iraq is a young, young pyramid in which the economically active age group rises, which in turn is reflected in the economic and political reality of the state, if it is well invested, but despite this rise, the category of young people under the age of (15 years) is still high, meaning the availability of a reserve of manpower for the state, which can be invested in the military and economic aspects. The population pyramid in Iraq is characterized by a state of age-specific balance, as the numbers of females converge or equal the numbers of males in most age groups.

**Fourth: Population pyramid of urban population in Iraq 2019:**

The concept of urban means the people who settle in the main cities and enjoy the services provided by urban centers (6), during Table (2) and Figure (2), we note that the relative importance of the age group of the working-age population (15-64 years) increased, as the percentage of males reached (29.11%), while the percentage of females reached (29.06%), and the category of young people came in second place, as it reached The percentage of males (19.79%), while females occupied a percentage of (18.69%), and the last rank of the elderly category, as the share of males reached (1.57%), while the percentage of females was (1.76%). The population pyramid of the urban population of Iraq did not differ much from the population pyramid of Iraq in terms of the high age groups in the working age (15-64 years) and their superiority over the young and old groups, and this is an indicator of the strength of the state, as we mentioned previously.

**Fifth: The population pyramid of the rural population in Iraq in 2019:**

Through Table (3) and Figure (3), it becomes clear to us that the increase in the relative importance of the working-age population in the age group (15-64 years), as the percentage of males reached (26.21%), while the percentage of females reached (25.26%), followed by the young category Age as the percentage of males reached (29.23%), while the percentage of females reached (78.21%), and finally the elderly category (65 and over) the percentage of males reached (1.15%), while the percentage of females reached (1.32%). The population pyramid of the Iraqi rural population did not differ much from its predecessor in terms of the superiority of the working age groups over the other groups and the somewhat balance between the numbers of males and females, with few differences.

**Table 1:** The five age groups of the Iraqi population according to 2019 estimates.

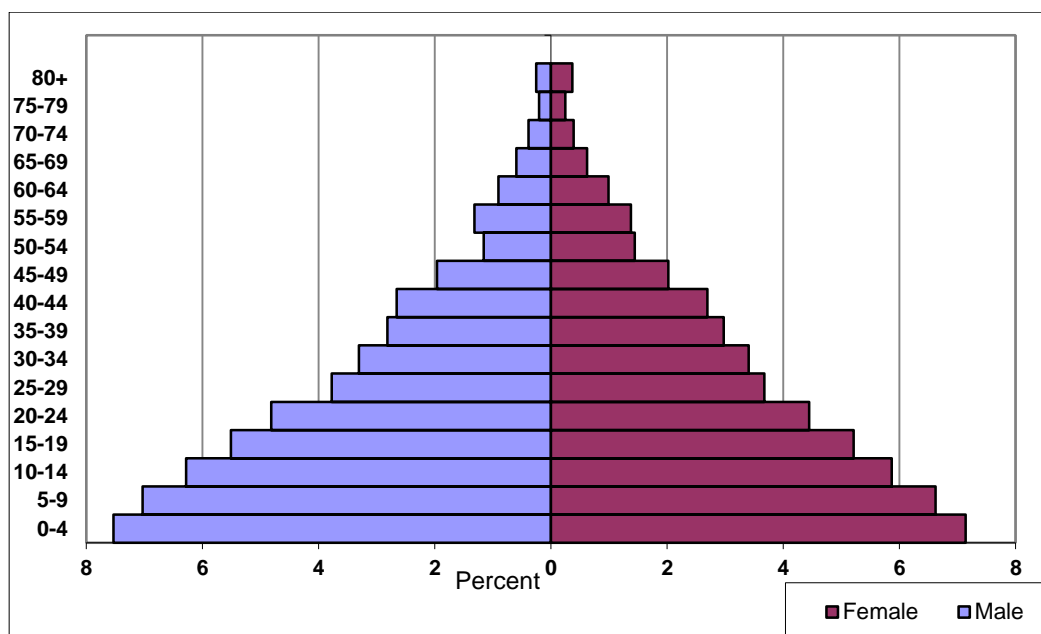
Classes	Male	Percent (%)	Female	Percent (%)	Total
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<b>0-4</b>	2947214	7.53	2793755	7.14	5740969
<b>5-9</b>	2750510	7.03	2589237	6.62	5339747
<b>10-14</b>	2458155	6.28	2294786	5.86	4752941
<b>Total</b>	<b>8155879</b>	<b>20.84</b>	<b>7677778</b>	<b>19.62</b>	<b>15833657</b>
<b>15-19</b>	2156791	5.51	2037814	5.21	4194605
<b>20-24</b>	1883982	4.81	1738706	4.44	3622688
<b>25-29</b>	1477655	3.78	1436732	3.67	2914387
<b>30-34</b>	1293900	3.31	1331510	3.4	2625410
<b>35-39</b>	1102866	2.82	1162754	2.97	2265620
<b>40-44</b>	1039989	2.66	1053879	2.69	2093868
<b>45-49</b>	768587	1.96	791404	2.02	1559991
<b>50-54</b>	453172	1.16	564330	1.44	1017502
<b>55-59</b>	515182	1.32	539124	1.38	1054306
<b>60-64</b>	354795	0.91	387782	0.99	742577
<b>Total</b>	<b>11046919</b>	<b>28.24</b>	<b>11044035</b>	<b>28.21</b>	<b>22090954</b>
<b>65-69</b>	233545	0.6	243306	0.62	476851
<b>70-74</b>	152371	0.39	153330	0.39	305701
<b>75-79</b>	80256	0.21	96704	0.25	176960
<b>+80</b>	99354	0.25	144412	0.37	243766
<b>Total</b>	<b>565526</b>	<b>1.45</b>	<b>637752</b>	<b>1.63</b>	<b>1203278</b>
<b>Total summation</b>	<b>19768324</b>	<b>50.52</b>	<b>19359565</b>	<b>49.48</b>	<b>39127889</b>

Source : Republic of Iraq, Ministry of Planning, Central Statistical Organization, estimates of Iraq's population 2019, Table (3) Estimates of Iraq's population by age groups, gender, and environment for the year 2019.

**Figure 1:** Iraq's population pyramid for the year 2019.



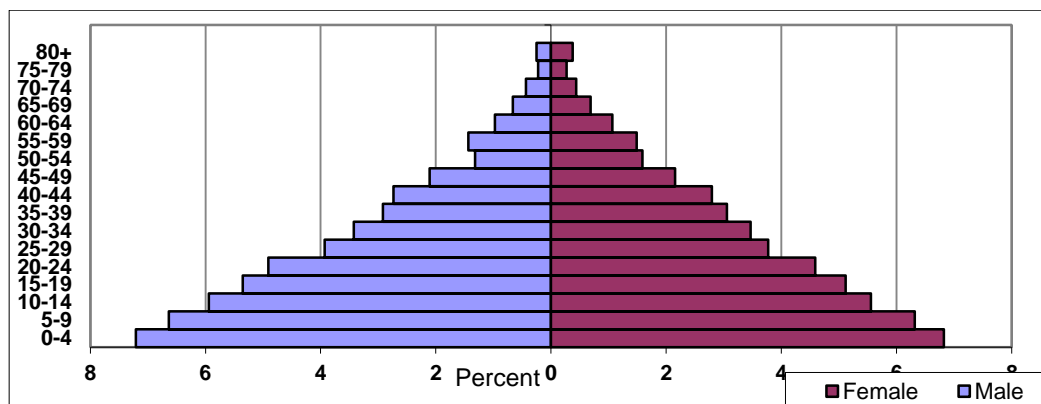
From the researcher's work: based on Table (1).

**Table 2:** Five age groups of Iraq's urban population, according to 2019 estimates.

Classes	Male	Percent (%)	Female	Percent (%)	Total
0-4	1971119	7.21	1864820	6.82	3835939
5-9	1814128	6.64	1726251	6.31	3540379
10-14	1624493	5.94	1519146	5.56	3143639
<b>Total</b>	<b>5409740</b>	<b>19.79</b>	<b>5110217</b>	<b>18.69</b>	<b>10519957</b>
15-19	1463945	5.35	1398246	5.11	2862191
20-24	1341378	4.91	1254045	4.59	2595423
25-29	1074205	3.93	1031546	3.77	2105751
30-34	936985	3.43	946826	3.46	1883811
35-39	798519	2.92	834485	3.05	1633004
40-44	748179	2.74	764029	2.79	1512208
45-49	575859	2.11	588558	2.15	1164417
50-54	360598	1.32	433581	1.59	794179
55-59	392183	1.43	406278	1.49	798461
60-64	265660	0.97	291011	1.06	556671
<b>Total</b>	<b>7957511</b>	<b>29.11</b>	<b>7948605</b>	<b>29.06</b>	<b>15906116</b>
65-69	180580	0.66	187706	0.69	368286
70-74	118379	0.43	118934	0.44	237313
75-79	61829	0.23	73284	0.27	135113
+80	68703	0.25	102517	0.37	171220
<b>Total</b>	<b>429491</b>	<b>1.57</b>	<b>482441</b>	<b>1.77</b>	<b>911932</b>
<b>Total summation</b>	<b>13796742</b>	<b>50.47</b>	<b>13541263</b>	<b>49.53</b>	<b>27338005</b>

Source from the researcher's work based on: Republic of Iraq, Ministry of Planning, Central Statistical Organization, Iraq's population estimates 2019, Table (3) Estimates of Iraq's population by age groups, gender, and environment for the year 2019.

**Figure 2:** Population pyramid of Iraq by environment (Urban) 2019.



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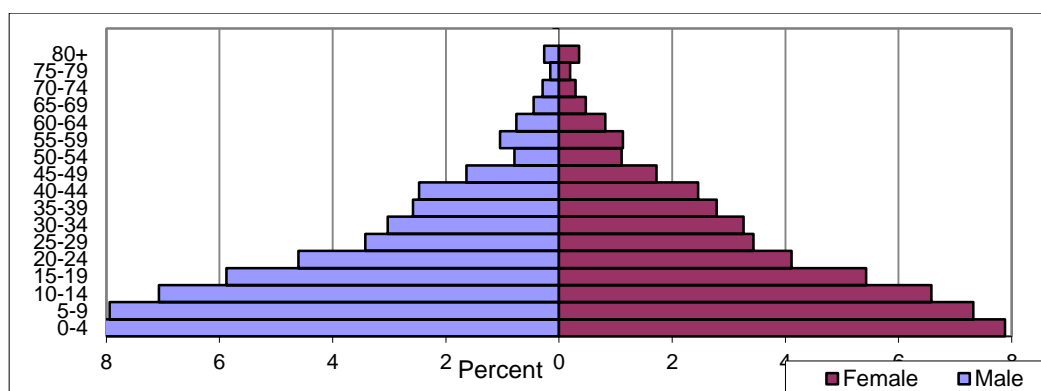
From the researcher's work: based on table (2).

**Table 3:** Five age groups of Iraq's rural population, according to 2019 estimates.

Classes	Male	Percent (%)	Female	Percent (%)	Total
0-4	976095	8.28	928935	7.88	1905030
5-9	936382	7.94	862986	7.32	1799368
10-14	833662	7.07	775640	6.58	1609302
<b>Total</b>	<b>2746139</b>	<b>23.29</b>	<b>2567561</b>	<b>21.78</b>	<b>5313700</b>
15-19	692846	5.88	639568	5.42	1332414
20-24	542604	4.6	484661	4.11	1027265
25-29	403450	3.42	405186	3.44	808636
30-34	356915	3.03	384684	3.26	741599
35-39	304347	2.58	328269	2.78	632616
40-44	291810	2.48	289850	2.46	581660
45-49	192728	1.63	202846	1.72	395574
50-54	92574	0.79	130749	1.11	223323
55-59	122999	1.04	132846	1.13	255845
60-64	89135	0.76	96771	0.82	185906
<b>Total</b>	<b>3089408</b>	<b>26.21</b>	<b>3095430</b>	<b>26.25</b>	<b>6184838</b>
65-69	52965	0.45	55600	0.47	108565
70-74	33992	0.29	34396	0.29	68388
75-79	18427	0.16	23420	0.2	41847
+80	30651	0.26	41895	0.36	72546
<b>Total</b>	<b>136035</b>	<b>1.16</b>	<b>155311</b>	<b>1.32</b>	<b>291346</b>
<b>Total summation</b>	<b>5971582</b>	<b>50.65</b>	<b>5818302</b>	<b>49.35</b>	<b>11789884</b>

Source from the researcher's work based on: Republic of Iraq, Ministry of Planning, Central Statistical Organization, estimates of Iraq's population 2019, Table (3) Estimates of Iraq's population by age groups, gender, and environment for the year 2019.

**Figure 3:** Iraq's population pyramid by environment (rural) for the year 2019.



From the researcher's work: based on table (3).

### **Conclusions**

1. The population pyramid in Iraq is classified as a young pyramid as a result of the high productive age groups ranging in age (15-64 years), as well as the high growth that contributed to the rise in the number of young people (0-14 years), while the elderly category (65 years and over) is considered less age categories .
2. The population pyramid in Iraq, according to the environment, is not much different from the population pyramid of Iraq in terms of age groups, as the active productive groups also rise from (15-64 years) compared to other groups
3. By analyzing the population pyramid of Iraq for the year 2019, it becomes clear that there is a balance or equality in the number of males with the number of females, and this balance has repercussions on the social and economic aspects of the state.
4. Iraq has an abundance of young and productive elements that excel over other groups, and this represents one of the components of the state that it is necessary to invest in an optimal way.

### **Recommendations**

1. The need to expedite the conduct of a comprehensive population census instead of relying on population estimates that lack accuracy, as it provides an accurate and comprehensive database that serves the development plans of the state.
2. Adopting a future strategy whose main objective is to invest the available human energy in Iraq, especially from the young elements, which are the engine of the state's economic, political and military strength.
3. Develop a clearly defined population policy, whether towards increasing or decreasing the population, in proportion to the state's economic resources and achieving balance.

### **Margins**

- (1) Republic of Iraq, Ministry of Planning, Central Statistical Organization, Annual Statistical Group (2018-2019), Department of Natural Conditions.
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- (8) Republic of Iraq, Ministry of Water Resources, General Authority for Survey for the year 2019.