Determination of the Residential Housing Needs Expected for Cities of Jordan Within the Period of 2014-2024

Mahmoud Abdullah Al-Habees[a],*

[a] Department of Regional Planning-College of Planning & Management, Al-Balqa Applied University, AL-Salt, Jordan.
*Corresponding author.

Abstract

The objective: The present study examined the prospective residential need for urban regions in Jordan cities in the administrative governorates as urban centers due to the size of population, of which the population are over 10,000 people during the period of (2014-2024). That is to determine the housing need due to trends of population growth and the prospective expectations of housing in the future. **Methods:** In order to do that, the interpretative analysis based on quantitative statistical approach was used to estimate the housing need of population in urban areas, due to population growth and the average of family size. The equation of population growth and housing needs assessment were used based on the average family size. Determination of the prospective size of the population increase is measured due to the number of the population during the period of (2014-2024) through coaching with the equation of population growth, and, then, prospective housing need during the period of (2014-2024) is calculated. **Conclusions:** The study found out that there are significant differences in terms of the distribution of population and housing on the urban communities identified by this study. It also revealed that the concentration of population increases in the city of Amman.

Key words: The prospective need of housing; Jordan Cities

INTRODUCTION

Countries have been interested with housing needs due to the increasing demand for, which is related to population growth and changes of the size and characteristics of the population at any locative level either national, regional or local, or institutional and where housing is one of the basic requirements of the population and one of the basic needs like food, clothing, etc. Housing is by and large one of the economic goods, requiring some inputs to be available such as labor, capital, land, and building materials (World Bank, 1999). In addition to the services related to housing and management operating the sector. Accordingly, the residential need is considered as the number of housing units that must be constructed or maintained to ensure the stability of the housing situation within the required level. This stability is by methods of development and urban renewal or replacement of residential areas (Bourne, 1981; Abu-ayanah, 1981; Wanaasi, 2009). Planning policies of housing emphasizes the function and regulation of residential job and the selection of residential site or appropriate residential communities, which are of objectives and of economic dimensions (Al-Rahmani, 2012).The housing policies are considered one of the interests of developmental planning because the size of the housing problem in any country depends completely on the size of the prospective housing needs. Thus, the greater this size is, the greater the severity of the problem is, and, consequently, more wages, housing allowance, and the number of royal housing units, in Jordan, increase (Al-Hunaiti, 1993).Other concerned institutions were also established in this sector to meet the growing demand for housing (General Organization for housing and Urban Development, 2010). when rates of population growth has been arising, Jordan realizes challenges and difficulties facing the housing expectations pertaining to population trends, seriousness of this growth, including those which are related to housing sector, and identification of the most important factors affecting urban

growth which represented by economic, social, cultural, technological, religious and communicative factors (Saleh, & Al-Obaidi, 1990). These factors are strongly associated with analysis of the urban system and demonstrating the consecutive growth and the population needs (Jarnyh, 1993).The housing need can be defined as the extent to which housing units are quantitatively and qualitatively less than what should be provided in order to provide decent housing for every family in the community. Data of the Department of Statistics indicate that the number of Jordan's population in 2010 was estimated to be 6113.0 thousand people, and population density is 68.7 people per km square, whereas the proportion of the population in urban areas is about 82.6%. The average family size was 5.4 individuals, and the proportion of dwellings connected to public water, electricity, and sanitation amounted to: 97.7%, 99.9%, and 59.9%, respectively (Department of statistics, 2010). The results of Population and Housing Census in 1979 and 2004 indicate that the number of dwellings in urban centers has been doubled, particularly in governorates of Amman, Zarqa, Aqaba and Irbid, which saw the highest rates of increase in terms of the number of housing units than that of other governorates as that the percentage of dwellings versus a housing sum of each governorate was: 93%, 94%, 88%, and 77%, respectively. That is because of the central location of Amman and AL-Zarqa between cities and other governorates and of the existence of a state of connectivity and urban and residential interdependence uninterrupted when moving between Amman, the capital city of Jordan and other neighboring governorates such as AL-Balqa, Madaba andAL-Zarqa.Jordanian cities underwent rapid population growth and a great housing extension since 1990s of the last century. Urbanization rates have increased in Jordan from 59% in 1979 to 82% in 2004; As a result, an increasing demand for housing, which do not meet all of the housing needs. Qualitative and quantitative changes affected Jordan cities of which size of the population is growing and, thus, people expand to neighborhoods of housing as a result of realistic urban expansion in addition to several factors which may have led to population growth in the cities of Jordan. This is related to the situation that Jordan is undergoing a stage of demographic transition which results in a hierarchy of cities sizes as confirmed by Clark (Clark, 1979).

Problem of the study and questions: The problem of the study lies in that Jordan cities have undergone a rapid growth over the past years. This growth affected reflected negatively on the insurance of housing need as well as the existence of unequal distribution of housing between the urban centers in the governorates of Jordan and housing need increase in and lack of housing in other cities. The problem becomes clear when answering the following questions: 1. What are the population growth trends in Jordan cities? 2. What are the prospective housing needs of those cities? 3. What is the size of prospective housing needs because of the future population growth?.

Significance of the study: The study is of paramount importance because it deals with a very important subject in Jordan as a developing country, which is affected by political situations in the Middle East after displaced migrations by the negative impact on Jordan from various aspects, including the housing sector. As a result, determining the size and the reality of housing has to be planned in the short-term period, depending on a long-term strategy.

Objectives of the study: This study mainly diagnoses the phenomenon of the urban housing need. It also determines the reality of the geographical distribution of population, spatial variation of the rates of population growth, and changes which is caused by population growth. In addition, it lays down the prospective housing needs of urban areas and determines the change of the distribution.

Review of related literature: Various studies dealt with this subject, including Abu-Ayanha (1993) which investigates the random and cumulative growth to form a pattern of growth in urban centers and existence of a relationship between population growth and the formation of urbanization. This relationship was identified via the spatial dimensions related to the geographical distribution of population and urbanization. EL-Mhana (1995) estimates the housing need in Palestine in the West Bank and Gaza Strip. It comes up with the existence of a shortage of houses and high ratio of Hashemite housing. Cullingworth (1998) identifies variables of population size and structure, the general standard of living, income distribution, the cost of construction, etc. that affect the growth and increase of housing need. McDonald (2001) deals with methodology of producing estimates of demand for medium-and long-term housing. It also highlights the importance of the expectations of the potential housing needs. Zubair (2001) argues that housing construction is a stimulus for economic growth, particularly in urban areas. He also claims that the housing sector is one of the most important sectors of economic growth because it creates new opportunities through internal and external investment. This study also indicates that housing construction is an important activity playing a significant role in recruiting the labor force. In addition, there are also many studies which have touched the same topic including: Myers *et al.* (2002), Wang (2003), and AL-Zahrani (2004). The most prominent report issued by the Commission for Communities UK (2006) is that what assesses the housing need in rural England for the years 2006 to 2011 and how to meet that need. Godwin (2006) investigates the economic importance of housing in developing countries and to make it part of the housing development planning of economic development and to identify its needs due to the strategy of economic

development and its relationship to residential growth.

Kintrea (2007) probes into the issue of deserted housing in England. It finds out that housing needs are constantly growing, and the gap increases between the number and quality of ancient, modern, and rented housing. Winters and Elsinga (2008) indicates the continued survival of the housing need in the future in Belgium. It also indicates that it is necessary to increase the incomes of the population to obtain adequate housing through improving housing association revenues and focus on the needy and unable people who cannot afford the cost of housing. Besides, these aspects are also dealt with by the following studies: Noreen (2007) and AL-Rabdawi (2010) tackles the increases of the dwellings number in Sultanate of Oman and how they are distributed due to type of construction materials used, in Jordan AL-Madanat *et al.* (1985), Alawin *et al.* (1991), AL-Hassan (1991), the National Committee of Population (1992), Theeb (1994), Ghosheh (1994), Awajrah (1994), AL-Rawabdeh (1994), Yacob (1996), Khanji (2000), AL-Syriani (2002), AL-Shubaak and Aysh (2002), Damrah (2003), a report prepared by the Economic and Social Commission for Western Asia (2003), The General Organization for Housing and Urban Development (2003), Alqubaan (2004), Abukharmah (2005), Aldbaih(2005), Abuanzh, and Nsir (2007), AL-Abadi (2007), a study carried out by the General Organization for Housing and Urban Development in Jordan (2008), Al-Bayer (2009), and AL-Bostanji (2010).

Methodology: In order to obtain the interpretative analysis, the quantitative statistical approach was used to estimate the housing needs of the population in urban areas, based on population growth and the average of family size. The method is to estimate population growth rates and expected population increase and, then, to determine the housing need in the light of that increase and the average family size, covered mainly the population census. On the other hand, appropriate diagrams and maps were drawn clarify the results of the study.

THE LIMITATIONS OF THE STUDY

1. Spatial domain: it is identified to the Jordan cities in the administrative governorates as urban centers depending on their size. The number of population of these centers is more 10,000 people.

2. Temporal domain: it is identified to the years 2014 to 2024 in determining the housing need (Department of Statistics, the results of censuses, 1994 & 2004).

Sources of data: The study relies on data issued by the Department of Statistics in the censuses of 1994 and 2004 in determining the urban communities which have been counted up for the study purposes; the number of population of these centers is more 10,000 people. That is because the Department of Statistics determines the urban

community as any gathering with 5000 people.

Statistical methods: The study relies on the Geometric formula as the following: the equation of population growth (1, 2):

Equation (1) …….$P_t = P_o.(1+r)^n$

Equation (2)…. $r = \sqrt[n]{\dfrac{P_t}{P_o}} - 1$

It was then rely on formulas as follows:

$$r = \left[\sqrt[t=0]{\dfrac{Pt}{Po}} - 1 \right] * 100$$

$$Pt = \left[\dfrac{r}{100} + 1 \right]^{t-0} * Po$$

Where:

r = rate of city population growth. Pt = population in the next census.

Po = population in the previous census. N = time period between two censuses. In order to calculate the potential population increases for the years 2014-2024 based on the population of Jordan cities, the population growth rate was used for the period 1994-2004. Then, the potential population increases were calculated based on equation of the potential population increases (1). Second, the housing needs assessment based on the average family size according to 2004 census for each city using the equation of the average family size (3) = The Number of population of 2004 ÷ number of households in the city 2004. In addition to determine the size of the potential population increase based on the number of the potential population between 2014 and 2024 of the population increase by applying the equation (4) (A and B):

4 -A -Population increase for the period 2004-2014 = difference between the number of population for the period 2004-2014.

4 -B -Population increase for the period 2014-2024 = difference between the number of the population for the period 2014 -2024.

Third: According to the potential population increase and the average family size in the 2004 census, the potential housing need is calculated during (2014 and 2024) via equation 5A and 5B).

A -The housing need for each city = the population increase during 2004-2014/ the average family size.

B -The housing need for each city = the population increase during 2014-2024/ the average family size.

Tables 1 and 2 explain the practical application of the above equations.

Analysis and discussion: After applying the equations above, it is obvious that depending on Tables 1 and 2 there is a clear difference in terms of the distribution of population and housing to the urban communities

identified in this study. They reveal that the concentration of population increases in Amman, where it is expected in 2014 that its population becomes two-thirds of the major cities' and about three quarters of the population in 2024. So, the city of Amman will need about 81% of the total housing units expected in urban areas in 2014 and 85% of that total in 2024. Figure 1 illustrates the relationship between the number of housing units and the number of urban population expected in the years 2014, 2024. The urban population in the governorates of Amman, Aqaba, AL-Zarqa, Madaba and AL-Mafraq witnessed the highest population growth rates for the period 1994-2004. To the contrary, the lowest growth rates of urban population were in the governorates of AL-Tafileh, Maan, AL-Karak and Ajloun. The highest population growth rates of the major cities for the period 1994-2004 were in the cities: Amman, Aqaba, Madaba, AL-Balqa, Jerash. The lowest population growth rates of the major cities for the same period were in the cities of: AL-Zarqa, Ajloun, AL-Karak andAL-Tafila. Previous observations indicate the urban dominance of the city of Amman in relation to the major cities in Jordan. The rate of annual population growth in was 5.3%, suggesting that the cities which are far away far from the capital city have become marginal and scattered, based on these equations.The migration, natural increase and economic development play a significant role in concentrating and speeding population growth in the cities of Amman, Aqaba, AL-Zarqa, Irbid, Jerash, and Madaba in the period 1960-1980. In the period 1980-2000, some cities get increased in terms of population growth at high rates, whereas in other cities growth slowed down. However, urban spatial growth rates continued in the same direction. In addition, there is a vertical expansion in residential buildings in Amman,AL-Zarqa and Irbid. Also, the housing area increased in Amman, AL-Zarqa and Irbid (General Organization for Housing and Urban Development, 2010. At the governorate level, Table 2 shows that the governorates of central territory (Amman, AL-Zarqa,AL-Balqa, Madaba) will include 78% of the urban population of Jordan in 2014 and 81% of that total in 2024. Thus, the population of that region will needs to 85% of the total housing units in 2014 and to 87% of that total in 2024. The governorates of the north territory (Irbid, AL-Mafraq, Ajloun and Jerash) will include 17% of the total urban population in 2014 and 15% of them in 2024 (a decline of 2%). Concerning the number of housing units, this territory will need to 11% of the total needs in 2004 and 10% of that total in 2024. Figure 3 explains the relationship between the number of housing units and potential population in the period 2014-2024.

Based on the above analysis, we argue that the governorates of the central territory will receive the largest increase in the size of the population and the housing units need in 2014 and 2024. Conversely, the size of the population and the housing units need in the governorates

of North and South territories (except Aqaba) will decline (see Figure 4). That means more concentration of population will be in the governorates of the central territory, and more housing need will also be there (see Figure 5). The concentration of population in some cities (and in particular in the central territory) is attributed to the high population growth rates for these cities, resulting from the contribution of external (forced and voluntary) and internal migration in the growth of these cities. This concentration is also attributed to high natural increase in addition to the high standard of living experienced by the Jordanian society and the changing pattern of families from the traditional (extended family) to the modern style (nucleus family) during the past three decades. In addition, this concentration is attributed to economic and social changes such as high educational level, income, openness to the foreign countries, individuality and independence. These factors affect clearly on the increasing need for housing. The Jordanian major urban communities such as Amman, Al-Resaifeh, AL-Zarqa having most of economic and industrial activities and social, educational, health services, education in the state, which serves as attractions for migrants from rural to urban areas and from outside Jordan. Such regions will require further need for housing (see Figure 6 and Form 1). The policy of reducing the urban growth is not effective and inconsistent with the reality of urban planning (Abu-Sabha, 2003; Ismail, 1988; Wahbeh, 1975). That is because the mechanism of the geographical spread of the population as well as the creation of employment away from urban centers are not an effective policy for the time being because of the increasing growth of the suburbs around major cities and increasing concentration of population. These two factors thereby increase the demand for housing taking into consideration the financial crisis faced by the state budget which is constantly with serious deficits. This limits the ability of the state under the current conditions to control the relationship between population growth and the potential need for housing. Also, the ongoing development plans did not take into account the increase in population and the variability of population growth in different parts of the country. Unfortunately, economic planning was interested to double the income, resulting in an increase of the population concentration and overcrowding in some regions (Al-Hunaiti, 1986). These plans do not take into account the change in standard of living; since housing is an ongoing phenomenon, it follows that the future of housing need in Jordan will weakly correlate with the assumptions, the strategy of development plans for housing which is based on economic unilateralism theory which is associated with supply and demand only relies upon. The large gap between the housing need and demand is an important opportunity for economic growth in the state as a large potential increase in housing construction and employment prosperity of the

employment in this field. The growth of cities is attributed to the increase of employment levels and spending on various economic activities in cities. Thus, the growth generates other growth, and that refers to the model of the city that is expanding in terms of residential construction in the interpretation of the city growth according to the principle of cumulative growth (Northam, 1979; Hartshorm, 1992).

RECOMMENDATIONS

To continue constructing urban housing to meet the indicators of housing deficit and taking into account the expected increase of housing demand within

urban organization which is in line with the integrated developmental planning and taking into account social and economic controls in addition to pay attention to the role of the political factor that affects Jordan and which is represented by instability in the Middle East (Department of statistics, 2010).

Direct residential investment and economic investment to those areas. It is also important to activate the role of the private sector in the main cities of the north territory: Irbid, Jerash Ajloun, and Mafraq, and in the main cities of the south territory: AL-Karak, Al-Tafilah and Ma'an in order to attract more of the labor force and thus to attract more investment in the housing sector in these regions.

Table 1
The Potential Total Population and Housing Units in the Centers of Governorates (2014-2024)

City	The total population and potential housing units in 2014			The total population and potential housing units in 2014		
	Potential population	Potential housing units	% of housing units	Potential population	Potential housing units	% of housing units
Amman	2747967	197929	80.74	4605695	331737	84.7
Al-Balqa	98046	4547	1.85	129206	5992	1.53
Al-Zarqa	483945	13402	5.47	567196	15707	4.01
Madaba	93482	3712	1.51	120838	4799	1.23
Irbed	326506	12395	5.06	408755	15518	3.96
AL-Mafraq	61616	2237	0.91	78053	2833	0.72
Jerash	50502	3109	1.27	77804	4789	1.22
Ajloun	8731	220	0.09	10024	253	0.07
Al-Karak	21894	333	0.14	23733	362	0.09
Al-Tafilah	27184	645	0.26	31016	737	0.2
Ma'an	35789	1204	0.49	44655	1502	0.38
Aqaba	117263	5425	2.21	160271	7415	1.89
Sum	4072925	245158	100	6257246	391644	100

The source: conducted by the researcher through utilizing the equations mentioned above, based on the censuses 1994 and 2004 issued by the Department of Statistics.

Table 2
The Potential Total Population and Housing Units in the Urban Regions only (of Which Population is More than 10000) in Jordan Governorates (2014-2024)

Governorate	The total population and potential housing units in 2014			The total population and potential housing units in 2014		
	Potential population	Potential housing units	Potential population	Potential housing units	Potential population	Potential housing units
Amman	3134358	222054	66.74	5163905	367581	71.12
Al-Balqa	262235	12629	3.8	361993	17986	3.48
Al-Zarqa	995496	45831	13.78	1324874	60995	11.8
Madaba	93482	3712	1.12	120838	4799	0.94

Continued

Governorate	The total population and potential housing units in 2014			The total population and potential housing units in 2014		
	Potential population	Potential housing units	Potential population	Potential housing units	Potential population	Potential housing units
Irbed	750064	28344	8.52	956380	37493	7.25
AL-Mafraq	75315	2535	0.76	98043	4020	0.78
Jerash	104218	4226	1.27	139392	6382	1.23
Ajloun	72354	2728	0.82	91328	3462	0.67
Al-Karak	73287	2643	0.79	92226	3517	0.68
Al-Tafilah	27184	645	0.19	31016	737	0.14
Ma'an	54130	1930	0.58	68342	2439	0.47
Aqaba	117263	5425	1.63	160271	7415	1.44
Sum	5759386	332702	100	8608608	516826	100

The source: conducted by the researcher through utilizing the equations mentioned above, based on the censuses 1994 and 2004 issued by the Department of Statistics.
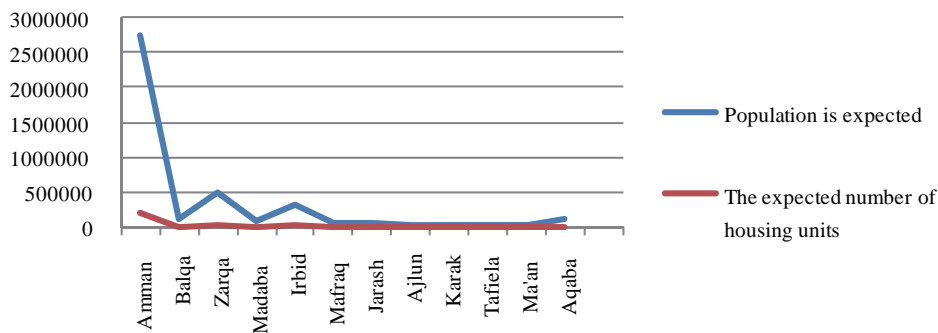

Figure 1
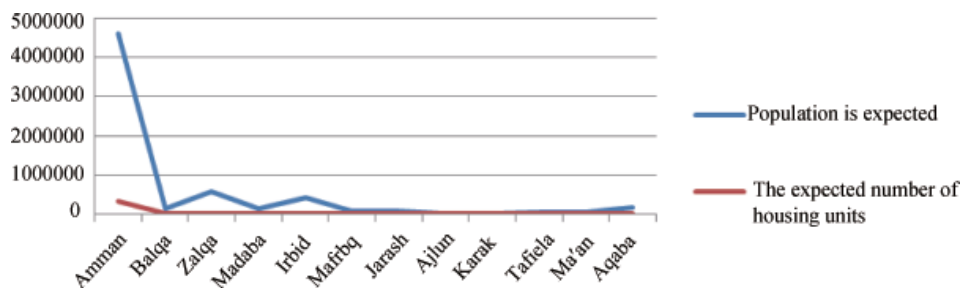**The Relationship Between the Number of Housing Units and Population Expected in 2014**

Figure 2
The Relationship Between the Number of Housing Units and Population Expected in 2024
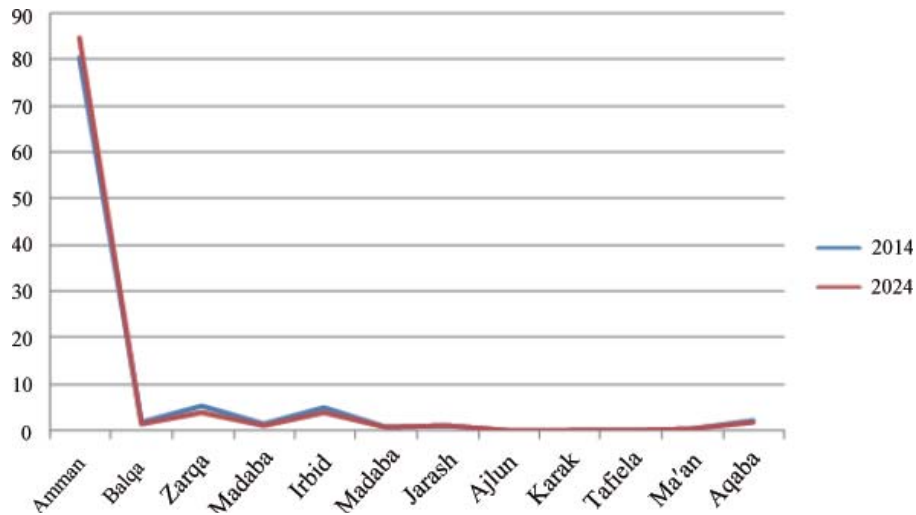
Figure 3
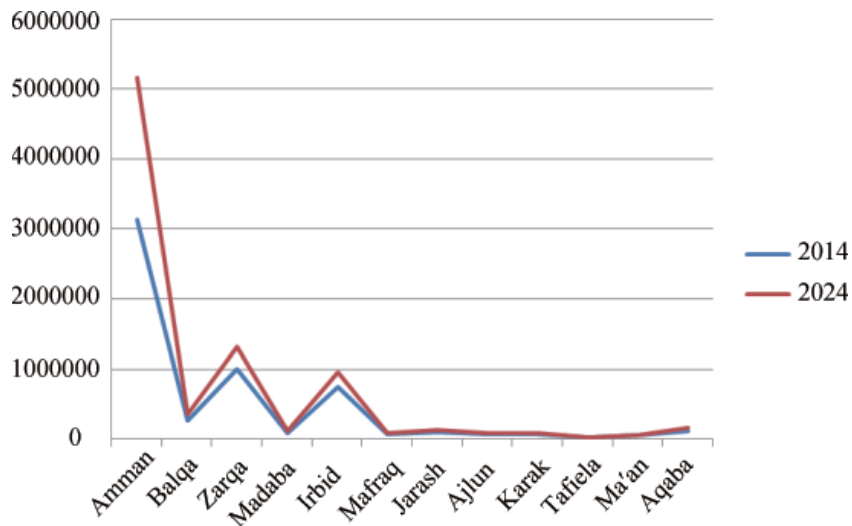**Change in the Percentage of the Need for the Housing Units Projected in the Years 2014 -2024**

Figure 4
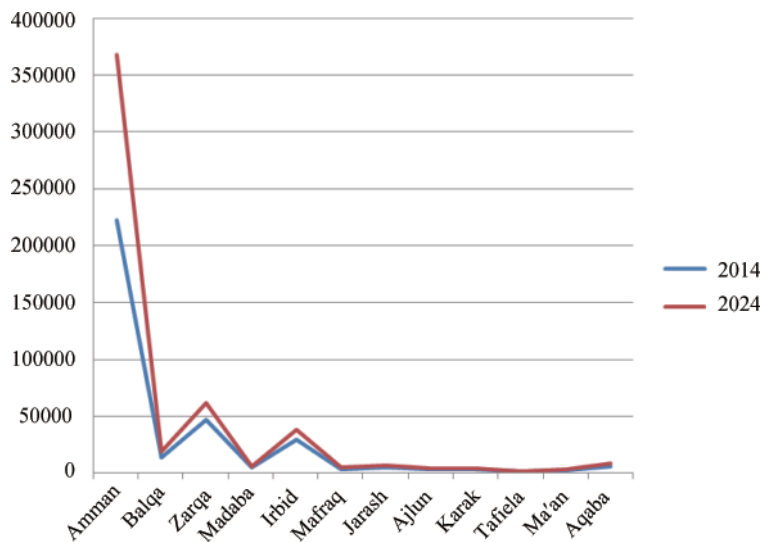**Change in Population Numbers Urbana's Expected in Urban Areas in the Years 2014-2024**

Figure 5
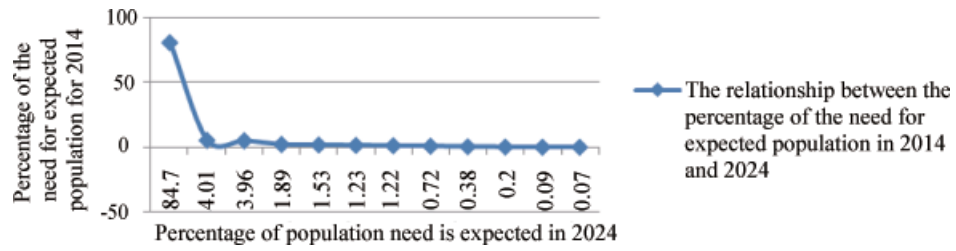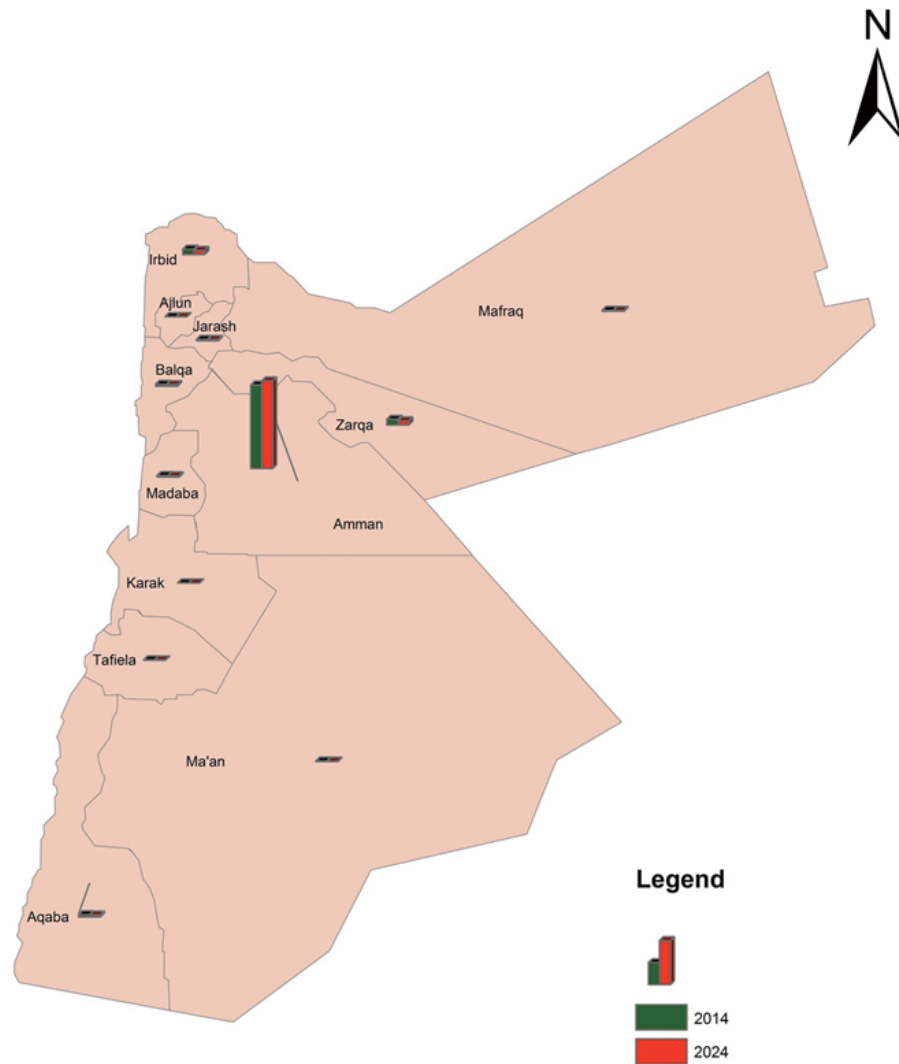**Change in the Expected Numbers of Housing Units in Urban Areas in the Years 2014-2024**

Figure 6
The Relationship Between the Percentage of the Need for the Expected Population in 2014 and 2024

Form 1
Percentage of Population Needed in 2014 and 2024

REFERENCES

[1] Abuanzh, N., & Nsir, A. (2007). *National Housing Strategy and a Project to Restructure the Housing Sector in Jordan*. Department of Urban Planning, College of Architecture and Planning, King Saud University, Riyadh, Saudi Arabia.

[2] Abu-Sabha, K. (2003). *Geography of the Cities*. Dar Wael, Amman, Jordan.

[3] Abu-Ayanha, F. (1993). *Urban Geography, an Analytical Study of the Village and the City*. Alexandria, Egypt: Dar University Press.

[4] Abu-Ayanha, F. (1981). Population and Urbanization. Beirut: The Arab Al-Nahdah House.

[5] Abu Kharmah, S. (2005). Theories of Urban Growth, A Case Study: The City of Irbid-North Jordan. *Yarmouk Research "Series of Social and Human Sciences", 21*(3(b)), 865-902.

[6] AL-Abadi, H. (2007). *Assessing the Function of Housing in the District of Ain Al-Basha* (Unpublished master's thesis). Faculty of Graduate Studies, Faculty of Graduate Studies, University of Jordan, Amman.

[7] ALawin, A., Hyassat, Y., & Aboyak, A. (1991). *Conference on Population and Basic Needs in Jordan:* (*Outlook 1991-2005*). The National Population Committee, Amman.

[8] AL-Bayer, B. (2009). *Population and Housing Growth and Appreciation of the Housing Need in the District of Bani Obeid/Irbid Governorate 1979-2004* (Unpublished master's thesis). Graduate School, University of Jordan, Amman, Jordan.

[9] AL-Bostanje, B. (2010). *Population Growth of the Cities of Karak: Prospects and Future Housing Needs* (Unpublished master's thesis). Graduate School, University of Mutah, Karak.

[10] Aldbaih, S. (2005). *Developing a Funding Strategy to Meet the Housing Needs and Promoting the Performance of Residential Housing Sector in Jordan* (Unpublished doctoral dissertaion). Amman Arab University for Graduate Studies Civil, Amman, Jordan.

[11] Al-Hassan, A. (1991). *Determinants of Housing Ownership in Jordan* (Unpublished master's thesis). University of Jordan, Amman, Jordan.

[12] AL-Hunaiti, H. (1993). *Estimates of Housing Need and Workshop Integrating Population Variables into Development Planning*. University of Jordan, Amman.

[13] AL-Hunaiti, H. (1986). *The Impact of the Policy of the National Income of the 1986-1990 Five-Year Plan on the Geographical Distribution of Population in Jordan, A Seminar on Five-Year Plan from 1986 to 1990 in Jordan and Effects on the Population*. The University of Jordan, Amman, Jordan.

[14] AL-Madanat, S., Aruri, F., & Kharabsheh, A. (1985). *Population and Housing from 1986 to 1990*. Department of Statistics, Amman, Jordan.

[15] Alqubaan, H. (2004). *Assesses the Housing Need for Low-Income People as Part of the Urban Growth of the City of Greater Amman* (Unpublished master's thesis). Graduate School, University of Jordan , Amman, Jordan.

[16] AL-Rahmani, S. (2012). *Housing Policy and Planning* (1st ed., pp. 113-136). Al-Hamed House for publication, Amman, Jordan.

[17] AL-Rabdawi, Q. (2010). Population Growth and Urban Development in the Sultanate of Oman. *Damascus University Journal, 26*(I, II), 555-588.

[18] AL-Rawabdeh, A. (1994). *Housing Market in Jordan for the Period 1971 -1984* (Unpublished master's thesis). Graduate School, University of Jordan, Amman, Jordan.

[19] Al-Shubaak, H., & Ayesh, A. (2002). *Investment in the Housing Sector and Trends of Urban Growth in the Greater Amman Municipality*. The Work of Scientific Day and Housing Investment, Publications of the Jordanian Engineers Association, Amman, Jordan.

[20] AL-Syriani, M. (2002). *Population Growth and Urban Services, the Department of Services in the City of Irbid, a Case Study of Life, A Symposium of The Natural Environment and Human Resources Problems in Jordan*. Department of Geography, University of Jordan, Amman, Jordan.

[21] Awajrah, K. (1994). *Analysis of the Housing Market in Jordan "Demand Side"* (Unpublished master's thesis). Yarmouk University, Irbid, Jordan.

[22] AL-Zahrani, R. (2004). The Geographical Distribution of Population and Housing to the Provinces in Saudi Arabia in 2004. *Umm Al-Qura University Journal of Science Educational, Social and Humanitarian, 9*(I).

[23] Bourne, I. (1981). *The Geography of Housing* (1st ed.). New York: Halsted Press.

[24] Clark, J. (1979). Contemporary Urban Growth and Concentration in the Middle East, the United Nations, Economic and Social Council, Economic Commission for Western Asia. *The Second Regional Conference of the Population, Damascus*.

[25] Commission for Rural Communities. UK. (2006). *Calculating Housing Needs in Rural England*. Retrieved from http://www.ruralcommunties.gov.uk

[26] Cullingworth, J. (1998). *Housing Needs and Planning Policy*. London: Rutledge.

[27] Damrah, M. (2003). *The Role of Statistical Data in the Formulation of Housing Policies*. Sixth Annual Symposium of the Housing Sector, General Organization for Housing and Urban Development, Amman, Jordan.

[28] Department of Statistics. (2010). ROI Jordan, Amman.

[29] Department of Statistics, Census of Population and Housing 1994 and 2004, Amman, Jordan.

[30] El-Mhana, I. (1995). *Housing Need for Palestinians in the West Bank and Gaza Strip, 1994-2002* (Unpublished master's thesis). Graduate School, University of Jordan, Amman.

[31] Economic and Social Commission for Western Asia (2003). Housing and urbanization policies: country profiles/ Hashemite Kingdom of Jordan, United Nations, New York.

[32] General Organization for Housing and Urban Development (2010). *Report of the Studies Department to Meet the Housing Needs of the Poor in Jordan, Amman*.

[33] General Organization for Housing Urban Development (2008). *Investigating the Gap Between Supply and Demand in the Housing Market and the Mechanics of the Target Group Needs to Respond Within an Enabling Strategy*. Management of Housing Policies, Directorate of Questionnaires, Amman, Jordan.

[34] General Organization for Housing and Urban Development. (2003). Sixth Annual Symposium to Assess the Housing Sector, Amman, Jordan.

[35] Ghosheh, A. (1994). *Private Sector's Role in Residential Development in Jordan-Evaluation of the Role of Institutions and Private Housing Companies in the Process of Residential Development in Amman* (Unpublished master's thesis). Graduate School, University of Jordan, Amman, Jordan.

[36] Godwin, A. (2006). The Housing and Economic

Development Debate Revisited: Economic Significance of Housing in Developing Countries. *Journal of Housing and the Built Environment, 21*(4).

[37] Hartshorn, T. (1992). *Interpreting the City: An Urban Geography.* John Wiley and Sons: New York.

[38] Ismail, A. (1988). *Studies in Urban Geography* (2nd ed.). Library Rafat Saeed, Egypt.

[39] Jarnyh, J. (1993). *Studies in the Geography of Urbanization* (pp.184-189). Muhammad Fadhli (trans.). Dar University Press, Alexandria.

[40] Khanji, A. (2000). *The Effects of the Mortgage on the Housing Sector in Jordan (1980-1996)* (Unpublished master's thesis). Graduate School, University of Al al-Bayt, Al Mafraq.

[41] Kintrea, K. (2007). Housing Aspirations and Obsolescence: Understanding the Relationship. *Journal of Housing and the Built Environment, 22*(4).

[42] McDonald, P. (2001). Medium and Long-Term Projections of Housing Needs in Australia: Positioning Paper, Australian Housing and Urban Research Institute.

[43] Myers, A., Pitkin, J., & Park, J. (2002). Estimation of Housing Needs Amid Population Growth and Change, Housing Policy Debate. *University of Southern California, 13*(3), 567-596.

[44] National Committee for Population: General Secretariat (1992).*The Papers for the National Strategy of the Population in Jordan.* Amman, Jordan.

[45] Noreen, F. (2007). *Identification of housing needs in the Kingdom of Saudi Arabia from 2005-2024*. Retrieved from the website: http:www.mep.go.sa/home/

[46] Northam, R. (1979). *Urban Geography*. Wile and Sons: New York.

[47] Saleh, M., & Al-Obaidi, M. (1990). *Urban Planning and Humanitarian Problems* (pp. 241-245). The University of Baghdad, Baghdad, Iraq.

[48] Theeb, T. (1994). *Determinants of Housing Demand and Its Flexibility* (Unpublished master's thesis). Graduate School, University of Jordan, Amman, Jordan.

[49] Wahbeh, A. (1975). *Urban Geography, Knowledge House, Alexandria.*

[50] Wanaasi, S. (2009). *Urban Growth, the Housing Problem and Housing: A Field Study in Batna District of Residence 1020* (Unpublished master's thesis). University of Hajj for the Urban/Batna, Algeria.

[51] Wang, J. (2003). *Household Trends and Projections in Hong Kong: A Macro-Simulation Model* (doctoral dissertation). Hong Kong University of Science and Technology, Hong Kong.

[52] Winters, S., & Elsinga, M. (2008). The Future of Flemish Social Housing. *Journal of Housing and the Built Environment, 23*(3), 215-230.

[53] Worid Bank. (1999). *Global Urban and Local Government Strategy: Executive summary.* The World Bank, Washington, DC.

[54] Yacob, W. (1996). T*he Relationship Between Marriage Rates and the Need for Residential* (Master's Thesis). Graduate School, University of Jordan, Amman, Jordan.

[55] Zubair, I. (2001). *Macroeconomic Issues and Policies in the Middle East and North Africa*. International Monetary Fund, Washington, DC.