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Income Distribution, Education and Poverty in Bahrain

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ABSTRACT

This current research investigates the income distribution, education and poverty which still capture the interest of economists, socialists and politicians for its clear impact on all aspects of the national economy. This research analyzes poverty, education outcomes and the various aspects of the income and wage gaps in Bahrain, relying on data obtained from the ministry of education and household income and expenditure surveys for the years 1983/84, 1994/95 and 2005/06. In addition to this data, the other data were obtained from other secondary sources such as ministry of education and statistical group. The most important results of the research indicate that there is no Bahraini family under the extreme poverty line, while an equivalent of 26% of them are under the absolute poverty line which was estimated from household income and expenditure survey for the year 2005/2006. This percentage will decrease greatly with various serious government policies aiming at reducing poverty. This research also stresses the important and influential role of education on income gap and income distribution in Bahrain.

1. Introduction

Statistics indicate that only 20% of the world's population live at a high level of comfort and luxury, while the vast majority of the population are experiencing poverty, ignorance, hunger, and some of them live on less than a dollar a day, and the gap between the two lives is increasing day after day (Todaro, 1981). The widening of that gap is aided by some policies which affect the income and wealth of both parties. The odd thing that such conditions are found in the same country, where there are regions / sectors / categories sharply experiencing the manifestations of the low

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living standards, while others live in the same country in a completely different life of luxury and wealth. All of this is due either to the policies leading to poor distribution of income and wealth, or policies that would widen the income gap or both.

Poverty and income distribution are associated with strong interactive relationship, Poor income distribution leads to the existence of the poor, and the existence of the poor leads to lack of life and hence, lack of reasons to earn adequate income to meet living expenses, thereby increasing poverty and widening the income gap between sectors, thereby talking about the distribution of income may not be complete without first talking about poverty.

Education is one of the most important factors affecting both poverty and income distribution. Obtaining a better education - particularly in developing countries - means a higher level of income. At the same time, education expenses may well be beyond the reach of people with low income levels, thus poverty means obtaining less efficient education, or even not obtaining any education at all, which minimizes the chance of obtaining a job with adequate salary, and lead to a wider income gap between the rich and poor sectors of the community, therefore, education, poverty and income distribution are issues closely related to each other (Abdelbaki, 2001). As a result to that, the distribution of production output within the national economy is an important process which received and still draws the interest of economists, socialists and politicians for its clear impact on the living standards for individuals and the whole society, hence the rationale of this research.

2. Research Objectives

The objectives of the research are as follows:

- 1 - Measure the poverty line in Bahrain, and then stand on the reality of poverty and the poor in the Kingdom.
- 2 - Analyze the various forms of income inequality in the Kingdom.
- 3 - Analyze the relationship between educational level and income level / annual expenditure of the Bahrain family.
- 4 - Measure inequality in education and analyze its reasons.
- 5 - Present some recommendations for decision makers to reduce the educational and income gap in the Kingdom.

3. Theoretical Background

3.1. Reasons for income inequality

There are many causes for the income gap. The most important of these causes are education and training. As mentioned before, education is an important factor in determining the level of wage and thus contributes greatly to the distribution of initial income in society. Also, health and health care is an important determinant of the targeted and achieved degree of growth and development in a country. Economists confirm the existence of a close relationship between nutrition and the worker's ability to make the effort required of him, this relationship is called "the efficiency – wage function", it confirms that malnutrition leads to low productivity. In general we can say that in light of the targeted production technology, improving the level of health will lead to improved labor productivity according to the level of productivity / worker, and from here comes the impact of the health level on income distribution, where the rich and urban residents generally have access to better health care services than the poor and the countryside residents.

It is no secret that work is the primary source of income for the vast majority of individuals in all economies, and therefore employment and unemployment represent a significant cause of poor distribution of income. To analyze that, it is important to identify the working-age and labor force within the community, and the rate of participation in the labor force and unemployment types and rate. The term working-age population refers to individuals at the age of sixteen to the age of sixty five, provided that they are not locked up in a hospital or prison or any other health care facility. Labor force includes employed and unemployed individuals, unemployed refers to those individuals who are currently not working but, have the ability and desire to work and/or are looking for work during the past month or temporarily lost their jobs or are expected to begin work within a month (Parkin, 2010).

Labor organizations play a clear role in reducing the income gap in the community through a package of benefits provided to workers, labor organizations are formed of workers working in one industry or group of industries, which means that there are different forms and levels of those organizations. The organizational form of labor regulations also differ according to the country, industry and possibly other factors. However, there are important units in those organizations which assume

specific roles to defend the interests of workers, like the collective bargaining unit which takes the role of negotiating with employers to gain appropriate working conditions like wages, working hours and conditions of work and any other related issues. The world famous economist Alfred Marshall (8th edition, New York: Macmillan, 1920) studied the impact of labor organizations on the level of wages and employment of workers and concluded what is now known as the "Marshall rules", Marshall decides that the impact of labor organizations on the wages and employment of workers depends on the flexibility of demand for labor. The first rule decides that whenever the labor demand curve is inflexible, the role of labor organizations in the production process increases. The second rule indicates that whenever the demand curve on the produced item or service is inflexible, the demand curve for labor under the umbrella of labor organizations is inflexible. The third rule states that whenever the demand for workers under the umbrella of labor organizations is not flexible, the share of labor organizations from wages to the total production costs would decline. Finally the fourth rule states that whenever the demand curve for labor under the umbrella of labor organizations is flexible, the curve for supply of alternative factors of production is inflexible. Although labor organizations lead to an increased number of the unemployed, they contribute to reduce the pay gap between workers under the umbrella of these organizations - usually low-skilled labor - and workers who are not covered by the umbrella of these organizations - usually highly skilled workers (Lewis, 1963; Plotnick, 1982; Freeman & Medoff, 1984; Curme & Khan, 1987 and Gittleman & Pierce, 2007). In general, we can say that labor organizations contribute positively in reducing the income gap between the labor forces within the national economy. There is no doubt that the positive role of these different organizations depends on their effectiveness on one hand and the environment through which they operate like domestic legislation, type and structure of labor markets and the extent of participation of workers in unions and other organizations on the other hand.

After years of work, saving represents an important factor in the stability of income level in the future. The model of life cycle that has been developed by (Modigliani and Brumberg, 1954) indicates that families save to distribute consumption over the years of their lives. As the work period may extend up to the age of retirement, while perhaps the individual lives beyond that age, then they save

on their working-age so as not to have to cut their spending after that age due to low income because of retirement. In the simplified image of the model, we assume that the level of income will be stable during the working-age, and with the assumption of a constant average savings also during those years without interest (zero interest rate), the net wealth generated will grow constantly and the wealth to age relationship curve takes the shape of an inverted " V " as shown in Figure 1. However, **Ando and Modigliani (1963)** amended the assumption of zero interest, and assumed positive rate of interest that does not change with time, as a result the net wealth curve takes the shape of an inverted "U".

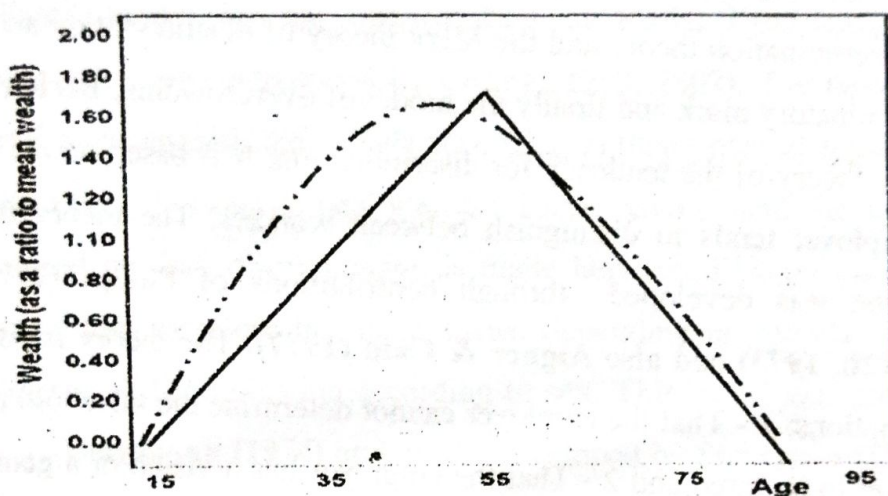


Figure (1): Lifecycle age – wealth profiles

Source: Wolff, poverty and income distribution, 2009.

Also another important factor affecting the degree of equitable distribution of income is the extent of racial discrimination in society between classes or categories, or perhaps certain sectors. Racial discrimination takes one of two forms: first, skills, competencies, expertise and capacity are all equal but discrimination is based on gender, for example, the discrimination between women and men merely because of sex difference. The second is discrimination in pay or benefits for employees in the same areas simply because they belong to different groups. In addition to the discrimination in wages and benefits, other forms of discrimination include: 1 - Preference of employment to individuals belonging to certain groups which spreads unemployment among other groups. 2 - Difference in the rates of labor force participation among different groups. 3 - Discrimination may also take the form of

housing segregation, in the sense that individuals belonging to certain groups live in specific areas, and the best example of this type of racial discrimination is on the African Americans in the United States, where specific areas are allocated for them to stay. The question that comes to mind now is: What is the relationship of that with the justice of income distribution? Answer is that these areas lack the education and quality health care, hence affecting the skills, competencies and the ability of residents, and also affecting their ability to obtain a quality job, and finally, the income earned from that job (Orfield, 1993 and Orfield & Lee, 2006).

There are many theories trying to show the impact of racial discrimination on individuals and society, including the theory of the tendency for discrimination, statistical discrimination theory and the Marx theory of discrimination and the model of the discriminatory mark and finally the model of overcrowding. Becker (1957) has provided the theory of the tendency for discrimination. It is based on the assumption that the employer tends to distinguish between workers. The theory of statistical discrimination was developed through contributions of Phelps (1972), Arrow (1972a, 1972b, 1973) and also Aigner & Cain (1977). The theory is based on two basic assumptions: 1 - That the employer cannot determine the threshold productivity of the worker to be hired and 2 - That the employer has a vision or a general idea on the relative productivity of groups of workers, it is presumed that workers from a certain group have higher threshold productivity than workers belonging for another specific group. In contrast to the previous theory, the employer wants to maximize profits, as well as basing the analysis on internal objective. The third form of the Marxism theory is derived, where the hypothesis is based on the statute of Marx's view that there are two conflicting classes in capitalist society: employers and labors. And the division of GDP between these two classes leads to class struggle. This struggle takes its economic nature through strikes and collective bargaining, and its political nature through the formation of labor parties in many Western European countries and lobbies in the United States of America. The aim of the capitalist class is to constantly prevent the labor class from forming political parties or economic forces to defend them. One way to do that is the so-called Divide and Conquer Strategy, where the capitalists always try to create divisions among the labor class, but this strategy did not work and was not fruitful due to the increasing awareness of the labor class to their interests and increasing trade unions and labor political parties.

Reich (1977, 1978, 1981a, 1981b, 1988) explained that racial discrimination between these two classes has evolved to discrimination within the same class. Within the working class there became discrimination between women and men, as well as discrimination on the basis of race or descent, such as racial discrimination against black Americans according to their origin, and certain labor classes started to consider minorities as a threat to their jobs. Thus labor classes became divided among themselves, and consider each other as an enemy. Perhaps this model is more applicable to the current situation in the United States and explains the evolution of racial discrimination over time, from just discrimination between two different classes: businessmen and labors to racial discrimination within the working class itself. The fourth model for the interpretation of Racial Discrimination - the discriminatory mark - was introduced by Loury (1998, 2002). The theory decides that it is normal to distinguish individuals according to their physical appearance and attributes related to it, in order to deal with the social environment characterized by uncertainty. Based on that, discrimination is made between different classes within the same society and therefore treatment varies depending on the class. The fifth model explains racial discrimination according to sex. This model was presented for the first time by Bergmann (1974) and newly developed by Stevenson (1975), Blau & Hendricks (1979) and also Blau (1984). The model assumes the existence of separate jobs for women other than those for men, and since the business demand for women is less than the work force volume and the employment opportunities for men are much greater, the prevailing wages of women is lower compared to men. There is no doubt that racial discrimination in all its forms leads to many economic, social and political problems. The severity of these problems increases as racial discrimination increases, leading to increased class and racial hatred, poverty, slums and increased number of outlaws, and crimes of all kinds leading to several negative effects on national economy on the one hand and on the distribution of income on the other hand. The starting point for the analysis of discrimination is to measure discrimination and define its images in the community. The use of regression models is the preferred method for measuring discrimination, and the model used in this regard has been developed by Blinder (1973) and Oaxaca (1973), and is also known as the Blinder - Oaxaca decomposition. It is a valuable tool for the analysis of the wage gap, where the differences in wages are classified into differences between the two groups

according to two added factors: The first is due to the differences in characteristics between the two groups and the other is due to differences in returns (coefficients) between these characteristics.

3.2. Causes for Widening the Income Gap over Time

On the other hand, there are a number of important factors – in addition to education which is considered a reason for the income gap on the one hand and for the widening of that gap in the future on the other hand - causing the widening gap over time, where technological change is considered one of the most important of those factors, the spread of computers and related information revolution has resulted in the emergence of a gap in skills and abilities of labor, some have joined the revolution rapidly and follow the developments seriously, while others are still clinging to traditional methods that have become primitive. This has led to a gap that started small but growing continuously, by comparing the level of wages among workers in the information technology sector and the level of wages in other sectors, the presence of a gap is evident¹.

With the establishment and operation of the World Trade Organization (WTO), the freedom of trade also represents the second important factor in increasing inequality. There are two ways to study the relationship between trade and the difference in earned income: the first focuses on the worker as a key component in the trade model that has been developed to show the impact of the actual supply of both skilled and unskilled labor (Berman, Bound, and Griliches, 1994). The import of labor of both types, along with the domestic supply represents the actual offer of employment in the community. Studies showed different results for the impact of international trade on wages and employment, some studies showed a weak influence (Borjas, Freeman, and Katz, 1992; Bound & Johnson, 1992; Bhagwati & Dehejia, 1994; Bhagwati & Kusters, 1994; Richardson, 1995 and others), while others showed the effect to be great as in (Wood, 1991; 1994 and 1998). The second method was based on the theory of Stolper - Samuelson, which is an extension of the Heckscher - Ohlin model in international trade (Wolff, 2003). The Stolper - Samuelson theory has provided a direct relationship between the prices of factors and product prices prevailing in international markets, where the model showed that if two

states agree have the same level of available technology and the same product prices, both would have the same wage structure, regardless of the level of trade. As a result, if the trade of developing countries depends on unskilled labor, the relative price of these products will fall in the importing countries and thus reduce the wage structure of unskilled labor which is related to changes in the prices of products and not to the size of the trade. Although majority of studies were built on one of these two studies, there are other studies that did not use any of them but had created a close relationship between international trade and wages (Murphy & Welch, 1991; and Feenstra & Hanson, 1996a, 1996b & 1999).

Amin, G., (2009) presented many of the determinants for income distribution in society, the researcher gave closer attention to the nature of technological progress, nature of the authority structure and the rate of population growth as factors responsible for equality or inequality in income.

3.3. The Dilemma of Poverty and the Poor

Poverty is a complex issue with political, economic and social dimensions, and if the talk was about the presence of certain poor countries, the conspiracy theory is not rule out to keep them poor and in permanent destitute of rich countries. For this, there is no specific definition that reflects this problem in all countries due to different economic, political, social and ideological conditions. In general we can say that poverty is the deprivation of any inability to acquire what an individual needs, resulting in reduced consumption, and low health status and educational level ... etc. The World Bank has defined low-income or poor countries as those countries in which the per capita income is less than \$ 600 annually. 45 countries mostly in Africa match this definition, which fall into this category 15 of with an average per capita income of less than \$ 300 per year. Hence, the concept of poverty varies from country to country and also within a single country from time to time, poverty is a dynamic phenomenon viewed differently according to several factors, including economic, social and political factors. It may be easier to identify who the poor are in order to develop an alternative definition of poverty. The poor are those who cannot meet the basic needs of their livelihoods, and consequently suffer from malnutrition and sometimes from a lack of nutrition, low health level, spread of diseases and also

unemployment in its wider sense. Poor people suffer from hunger, disease, ignorance and unemployment. The picture differs from one country to another which called people to distinguish between many types of poverty, such as relative poverty, absolute poverty and extreme poverty in addition to other types such as individual poverty and mass poverty, and so on. There are categories of work that is. There are groups that work, gain a share of the education, have health insurance but their income is not enough to remove their status of poverty.

The United Nations development program added other criteria directly reflect the level of human well-being and quality of life "Livelihood", which expands the scope of poverty to the concept of quality of life to include 70 countries in the world, i.e., there are about 45% of the poor live in high income communities, meaning that there are poor people in rich countries, and it is enough to mention here that there are 30 million people live below the poverty line in the United States of America, representing about 15% of the total population.

Poverty, like many of the concepts of economic process of a relative, so the person is poor when compared with someone who is higher than the level of income and be rich or poor when compared with the level of income with the income level of low to someone else, in the same country, also it with evolution stage of economic development achieved by the State is changing the level of income, which is a poor owner. And of course different from this level of income among countries may be individuals in the level of income of the poor in a particular country and the people at the same level of income are not poor in another country

There is no doubt that poverty leads to a series of social phenomena that have a negative impact on social stability within the community and those phenomena refraining from marriage, postpone having children who were able to marry, and children have to work and then deprived of education, as well as poverty leads to marriage is not homogeneous between the parties, and attend work or additional work to get the money necessary for life, and sometimes accept work inappropriate or illegal, and may eventually the head of the family may has to travel to another area within the country or even travel to work outside the country, which means the separation of the family

There are several standards used by economists to measure poverty, the most important is the poverty threshold through which the population is divided into poor

with level of income under a certain extent (the poverty threshold) and non-poor with income that exceeds this limit. The problem with this method is how to determine the extent or the poverty line, there are different ways to determine this line and hence its value differs according to the method used in the assessment, as well as that this line must differ from one country to another and from one period to another even within the same country according to growth and economic development. The second method is the basic needs of the individual, through defining the basket of the basic goods and services needed by an individual during a certain period, and then the value of the basket is estimated. According to this method, individuals with income level equal or more than this basket are not considered poor, while those with income less than this value are considered poor.

According to the poverty threshold used, distinction is made between three types of poverty and then the poor. There is relative poverty which means the percentage of national income earned by the poorest people in society, and absolute poverty which is determined by the minimum income necessary to obtain the basic food and non-food needs of the individual, finally, extreme poverty, which is the minimum income required for basic needs of food per person only. According to this classification, a poor person is considered relatively poor if he falls within the poorest population of the country (for example, the poorest 10% of the population), absolutely poor if his income is enough to get the basic food and non-food needs, and extremely poor if his income is barely enough to get only the basic food needs (Baqir, 1999).

Identification of poor people is helpful to know many poverty indicators, including poverty degree, poverty rate and the poverty gap. The first refers to the extent of discrepancy between the poor, the second is measured by dividing the number of individuals below the poverty line on the total population, and finally the poverty gap indicates the size of income gap between the poor and the poverty threshold itself. Poverty may be attributed to many interrelated factors including: low level of productivity, poor distribution of income and wealth in society, population growth, or rather the increased rate of population growth over the rate of economic growth, misuse of some economic policies, low levels of technology available in the community in addition to external causes which are considered an important aspect for the existence of poverty in certain countries.

3.4. Education and Income Distribution

Tanzi (1988) stated that human capital is the most vital element, not only to push the wheels of growth and development, but also to boost the wheels of justice and equality in society. Thus, the human resource development holds great importance in terms that human is the goal, means and executer of the economic development process. Human resource development comes through increasing the skills and educational abilities, the level and quality of the available health and training services and this is referred to as "investment in human capital." In most countries, the level of education is one of the most important determinants of the wage level, therefore, education is an important factor in determining the degree of equitable distribution of income in any society. For example, 50% of the income inequality in Brazil is interpreted through the disparity in educational level (Clements, 1997).

In the old times, the interpretation of the human capital model was attributed to Adam Smith in his book (Wealth of Nations) in 1667 and recently to Schultz and Becker in his book "Human Capital" in 1964. The human capital model is the extension of the new-classic model determining wages and employment supply on the long run, and the idea revolves around the threshold product of the work factor. In this model, assuming that education and training will increase worker's productivity and hence wages, each individual takes a decision to determine the quantity and quality of education and training needed by him. There is no doubt that this decision is also beset by cost like direct cost through spending on education and training, as well as the indirect cost in the form income lost during time of training and education of labor. Then individuals choose to learn and train if the expected return after the process of education and training is higher or at least equal to the cost borne by the individual to choose alternative education and training.

Even with different analysis on the effect of education, training on the earned income, studies have proved the existence of a positive relationship between education and training on the one hand, and the ability to earn income on the other hand. In view of the costs of education and training, poor families, areas and countries cannot afford such costs meaning that the amount of education and training received

by their children will be lower than that obtained by rich families, areas and, countries to their children. Since education, as mentioned earlier, is an important determinant of the level of wage or income, this difference will lead to income gaps between poor families, regions and countries on one hand and their rich counterparts on the other hand. Also taking into account the difference in the quality of education available for poor families, areas and countries from that available to rich families, areas and countries, the education gap involves yet another dimension which is the quality of education obtained. The level of education and training has another dimension which cannot be ignored that is the difference in education and training among the mentioned groups will lead to widening the income gap with the passage of time, as the influence comes through affecting the demand and supply of education. On the demand side, the poor parties particularly those in rural areas are characterized by low quantity and quality demand on education as compared to rich Parties particularly in the cities. On the supply side, we find that most governments tend to provide educational services required by the rich and the urban residents, hence the educational benefits reaching the poor and residents of rural areas are less than those reaching the rich and urban areas. Taking into account that the level of education clearly influences the opportunity of getting a job, as well as wages and the level of income, the income of city residents and the rich will increase at a rate greater than the rate of increase of incomes of the poor and residents of rural areas which will increase the income gap between the two groups. Here we will get into a vicious circle where a better quality and quantity education would lead to higher income and a higher income again leads to better education... and so on, so the rich get richer and the poor get more poorer, widening the gap between them with the passage of time on one hand, and forms a vicious circle between education and income distribution on the other hand, as shown in Figure 2.

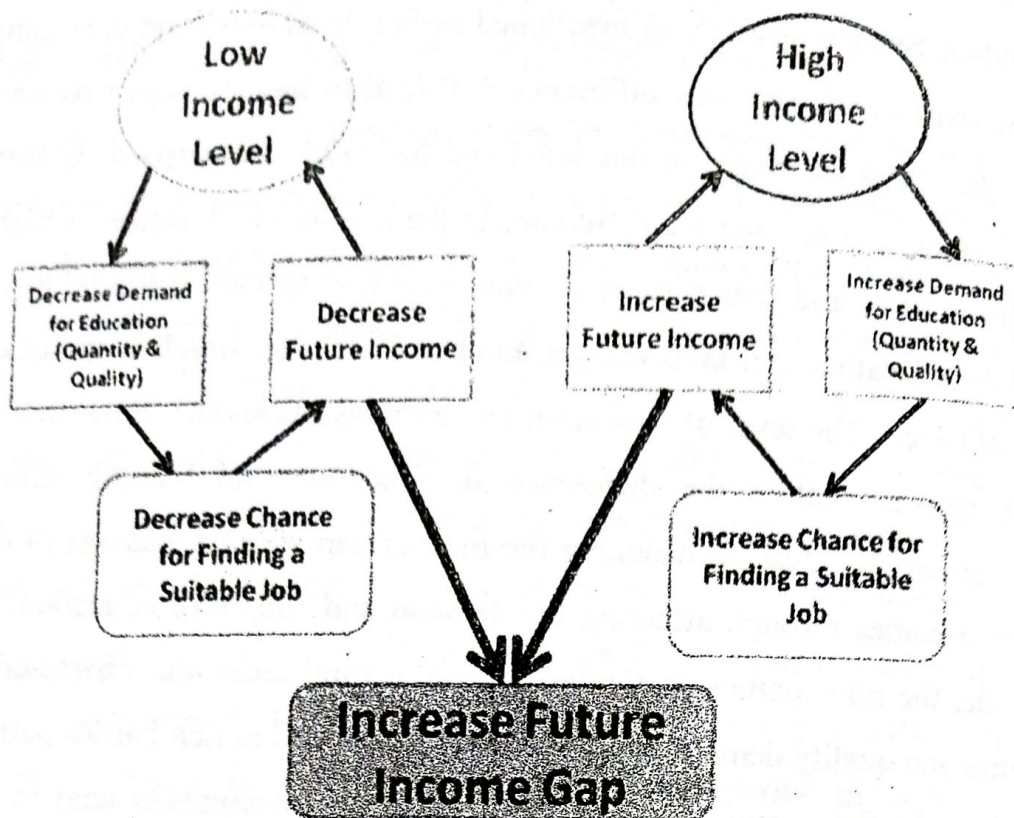


Figure (2): The Effects of Education on Income Level

Source: designed by the author

4. Education, Poverty and Income Inequality in Bahrain

4.1. Education in Bahrain

The Kingdom of Bahrain gave special attention to the education sector since the beginning of the twentieth century. The opening of the first elementary school was in 1919 under the auspices of the Senate, and the opening of the first elementary girls' school and the first post-graduate scholarship to the American University in Beirut was in 1928. To meet the growing demand for education, the number of all types of schools in the Kingdom is continuously increasing, by 2006/2007 the number of primary schools in public education reached 134 schools, the number of middle schools reached 38, while the number of secondary schools reached 30 (**statistical Bulletin, 2008**). The Bahraini government also pays particular attention to elementary and technical education to help in raising the skills of labor force as preferential advantages for the Bahraini economy, to meet the demands of the local and regional labor markets. Due to government's interest in the education of girls and according to data from the Ministry of Education the share of women in the education sector has

been increased, as well as the participation of women in the labor force is close to the contribution of men. However, the education in Bahrain still suffering from the same problems suffered by education in developing countries in general, those problems include failure to provide the educational environment necessary to give learners the ability to self-learning and the ability to analyze, innovate and create, as well as weakness of applied and technical research as a result of poor infrastructure of institutions capable of stimulating research and development.

4.1.1. Pre-University Education

Pre-university education in Bahrain involves general education and private education as discussed below:

1 - General Education (Government)

The education stages in Bahrain are divided into stages three stages: primary school (6 years), middle school (3 years) and secondary (3 years). Education is divided in the primary and middle stages into two types: General and religious (for boys only), while secondary stage is divided into several streams namely: scientific, literary, business and the unified streams, in addition to technical and vocational training (for boys only), vocational apprenticeship, and religious (for boys only). Table (1) shows the number of students and classrooms in public education, according to type and sex during the year 2009/2010, the table shows that the proportion of females to the total number of students in all stages of pre-university education is slightly more than male students, except in the preparatory stage, because religious education is limited to boys only, though this did not affect the status of females in primary and secondary schools.

Table (1) Number of students and classrooms at government education by level, type of education and sex (2009/ 2010)

Level	Type of Education	No. of Students			Classrooms		
		Male	Female	Total	Male	Female	Total
Primary	General	29921	31435	61356	1087	1094	2181
	Religious	1310	-	1310	43	-	43

	Total	31231	31435	62666	1130	1094	2224
Intermediate	General	15742	15998	31740	516	508	1024
	Religious	437	-	437	16	-	16
	Total	16179	15998	32177	532	508	1040
Secondary	Science	192	137	329	5	3	8
	Literary	91	84	175	3	2	5
	Commercial	593	494	1087	14	14	28
	Tracks Unification	8813	14939	23752	298	493	791
	Technical	4084	-	4084	185	-	185
	Vocational Training	372	-	372	19	-	19
	Vocational Education	519	309	828	22	12	34
	Religious	133	-	133	6	-	6
	Total	14797	15963	30760	552	524	1076
TOTAL		62207	63396	125603	2214	2126	4340

Source: Statistical Groups, Central Informatics Organization, Directorate of Statistics, Bahrain, 2010.

2 - Private Education (non-governmental)

The directorate of private Education at the Ministry of Education is the authority supervising the private institutions sector. This administration coordinates with other administrations and ministries to provide support and technical assistance to all private educational institutions, such as assistance in finding teaching staff, providing textbooks for Arabic language, Islamic education, history and geography of Bahrain, and the allocation of specialists from the ministry to guide the school material mentioned above.

Private educational institutions Include different types as follows:

- Nurseries: those are institutions under the supervision of the Ministry of Labor and Social Affairs, and receive children under the age of three. Nurseries follow women's associations, charities and some are owned by private institutions.
- Kindergartens: Kindergartens vary in Bahrain, some of them follow women's and charity associations, others are owned by individuals while some are attached to private schools as an educational stage. Those are attended by children from the age

of 3-6 years. The number of nursery schools stood at 134 in the year 2006/2007 (Statistical Bulletin, 2008).

• Private schools: Private schools vary depending on the educational systems adopted and the agencies followed by the educational advisory bodies. These bodies have a role a clear in determining the path of each educational institution, the number of private schools in three stages: primary, intermediate and secondary reached 60 schools in the year 2006/2007 (Statistical Bulletin, 2008). Private schools in Bahrain are also divided into two types:

1. National Private Schools: These are schools that were established and run by Bahraini nationals or in conjunction with non-Bahrainis with a view to education in accordance with the national curriculum or based on other curriculums authorized and supervised by the Ministry ,to primarily serve Bahraini students. These include schools of various levels of education starting from kindergarten, primary, middle and secondary. These schools follow bilingual systems where subjects are taught in both Arabic and English.

2. Foreign private schools: These are schools that have been created, managed and funded by foreign persons or institutions in the State of Bahrain, or in conjunction with Bahraini people with a view to education according to foreign curriculum and supervision and grant certificates of country of origin, and serve primarily foreign students. These include schools of various levels of education starting from kindergarten, primary, middle and secondary. Arabic language is taught in all private schools that accept Arab students in addition to Islamic education lessons for all Muslim students.

2. Foreign community schools: These are schools that have been created and funded by the foreign communities in the Kingdom of Bahrain for the purpose of educating their children only.

Table (2) shows the evolution of the number of students enrolled in private schools from 1997/98 - 2005/06, the data indicate increasing numbers of those enrolled in these schools during the concerned period with the exception of the 2002/2003 academic year for enrollment in schools and the year 2001/ 2002 for admission to nursery and pre-school level. The data also indicate an

increase in the number of male students over the number of females in private schools during the relevant period.

Table (2) Number of students at Private schools by nationality and sex (1997/98 – 2005/06)

Academic Year	Bahraini			Non- Bahraini			TOTAL		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Nurseries and Kindergartens									
1997/98	5744	5670	11414	1629	1456	3085	7373	7126	14499
1998/99	6047	5619	11666	1699	1435	3134	7746	7054	14800
1999/00	6264	5844	12108	1732	1522	3254	7996	7366	15362
2000/01	6460	6014	12474	1844	1605	3449	8304	7619	15923
2001/02	5236	5044	10280	498	367	865	5734	5411	11145
2002/03	7028	6438	13466	1921	1696	3617	8949	8134	17083
2003/04	7644	7054	14698	2062	1879	3941	9706	8933	18639
2004/05	7744	7186	14930	2303	2089	4392	10047	9275	19322
2005/06	7945	7430	15375	2447	2207	4654	10392	9637	20029
Schools									
1997/98	4136	2716	6852	7517	6793	14310	11653	9509	21162
1998/99	4662	3056	7718	8086	7220	15306	12748	10276	23024
1999/00	5070	3288	8358	8008	7195	15203	13078	10483	23561
2000/01	5561	3725	9286	8382	7460	15842	13943	11185	25128
2001/02	7568	5177	12745	10098	9082	19180	17666	14259	31925
2002/03	6430	4417	10847	9152	8056	17208	15582	12473	28055
2003/04	6960	4895	11855	9323	8276	17599	16283	13171	29454
2004/05	7486	5208	12694	9651	8753	18404	17137	13961	31098
2005/06	8340	5873	14213	10496	9669	20165	18836	15542	34378

Source: Statistical Groups, Central Informatics Organization, Directorate of Statistics, Bahrain, 2007.

4.1.2. University Education

University education in Bahrain is available for those who completed high school through two government universities which are the University of Bahrain, and the Arab Gulf University, in addition to twelve private universities, as well as some specialized colleges such as the Faculty of Health Sciences. With reference to Table (3), we find that the overwhelming proportion of students join the University of Bahrain since it is the state university on one hand, and the low cost on the other hand, in addition to exemption from tuition fees for many students.

Table (3) Number of students in Higher education by academic institutions (2002/2003 – 2006/2007)

Year	Academic Institution	Male	Female	Total
2002/2003	Bahrain University	6880	11892	18772
	Arabian Gulf University	60	138	198
	Health Science College	-	-	-
	Bahrain Training Institute	-	-	-
	Abroad	225	143	368
2003/2004	Bahrain University	6260	12184	18444
	Arabian Gulf University	56	157	213
	Health Science College	-	-	-
	Bahrain Training Institute	-	-	-
	Abroad	478	438	916
2004/2005	Bahrain University	5793	11987	17780
	Arabian Gulf University	65	194	259
	Health Science College	72	381	453
	Bahrain Training Institute	-	-	-
	Abroad	379	184	563
2005/2006	Bahrain University	5174	11459	16633
	Arabian Gulf University	68	216	284
	Health Science College	80	389	469
	Bahrain Training Institute	-	-	-
	Abroad	364	189	553
2006/2007	Bahrain University	3980	9870	13850
	Arabian Gulf University	88	242	330
	Health Science College	108	676	784
	Bahrain Training Institute	2549	2507	5056
	Abroad	-	-	-

(-) not available

Source: Statistical Groups, Central Informatics Organization, Directorate of Statistics, Bahrain, 2007.

4.1.3. Indicators of Education in Bahrain

The education indicators in the Kingdom of Bahrain indicate an increase the rate of literacy between adults from 84% in the period 1985-1994 to 88.8% in the period 1995-2007, the percentage of overall enrollment in public and higher education in 2007 accounted for 90.4%, this rate exceeds the global average of 67.5% and places Bahrain in rank one on the Gulf and Arab levels. The percentage of women enrolled in education reached 95.3% more than for men which amounted to 85.8% for the same period. According to a report by the United Nations, the total education guide reached 89.3%, which exceeds the Arab average of 72.6%, the Gulf average at 83.4%,

and the global average of 75.3%. The Kingdom of Bahrain came first among Arab countries in the proportion of primary school enrollment rate of over 98% according to the Global Monitoring Report on Education for all of 2010 issued by the United Nations Educational, Scientific and Cultural Organization (UNESCO, 2010). It is worth mentioning that the new statistics released by the Ministry of Education in Bahrain indicate that the proportion of primary school enrollment reaches nearly 100%, since the legal provision for compulsory education in the Education Act of 2005, has enabled the Ministry to follow up and reform all cases of leakage or denial of the study caused by parents, resulting in an annual reduction in the dropout rate of primary education. The proportion of students to teachers in primary schools has raised from a teacher for every 20 students in 1990 to 18 students per teacher in 2000. As for expenditure on education, the percentage has fallen from 12.8% to 12% between 1991 and 1999, and then to 9.4% in 2007, but the absolute value of the spending on education has increased. Spending on public education as a percentage of GDP had declined from 3% in 2000 to 2.4% in 2008 (UNESCO, 2010). Bahrain came within the high-performance countries in achieving the goals of education for all in 2010. Bahrain has achieved almost hundred per cent (.972) in gender equality in education, with a dropout rate of education in Bahrain, less than half per cent (0.04%) in 2007, and the proportion of illiteracy among adults for the same year was 2.46.

4.2. Poverty in Bahrain

4.2.1. Poverty line and the poor in Bahrain

There are a limited number of studies that have shown interest in poverty in the Kingdom of Bahrain, including the study of the **AbdelKhalik, G. (1987)**, which focused on assessment of the poverty line for families of Bahrain through the research on income and household expenditure of 1984/1985. The study estimated the poverty line in Bahrain at 403 dinars, the study found four estimates for the percentage of Bahraini families living below the poverty line, three of which depended on a type of diet that was prepared by a nutrition specialist at the Ministry of Health, and according to this study, poor Bahraini families range between 23.6% and 33.4%, according to the fourth alternative, which considered a poor family as the family that spent less than half the median expenditure, amounting to a 18% of the Bahraini

families. In his study, **Baqir, M. (1999)**, argued the results of the previous study indicating that they were overstated as a result of reliance on a diet that does not reflect the reality of Bahraini families. He concluded that the poverty line in the Kingdom was 326 dinars, and then the percentage of poor Bahraini families stands at 5% for citizens and 17% for expatriates in the year 1984. According to statistics from the Central statistics department of Bahrain in 2003, 88 thousand households live in the country, 12% of them or nine thousand and 928 families live below the poverty line or extreme poverty, while 47 thousand households live in moderate condition and the rest live above luxury, and that the poverty line stands at an average monthly income of 309 dinars per month for the family in the 1995, and 336.8 dinars per month or 4404 BD per year equivalent to approximately \$ 11,648 in 2003. In 2008, the Minister for Social Security in the Kingdom stated that the government had eradicated extreme poverty as defined by the World Bank, and what remained is relative poverty. Based on the recent report of development objectives in cooperation with the United Nations Development Program, the minister announced - in the Bahraini parliament - which the average household income, which is considered poverty line is 112 dinars for a husband and wife, this estimate has been much criticized. One member of the Parliament announced that providing support by one hundred million Bahraini dinars per year can eradicate poverty in Bahrain. There are ten thousand and 750 poor Bahraini families receive monthly aid from the Ministry of Social Development.

It is important to mention that every country has its own circumstances and their standard of living, and thus the concept of its citizens to poverty. Based on the data of Bahraini family income in the research Household Income and Expenditure for the year 2005 / 2006, we believe that the extreme poverty line for a Bahraini family consisting of two individuals is 112 dinars per month. The median income, according to Household Expenditure and Income Survey for the year 2005 / 2006, equals to 13066.15 dinars a year, or 1088.846 dinars month. So half the median income 544.423 dinars per month, which means that the absolute poverty line in Bahrain is 544 dinars per month for the year 2005/ 06, and there is approximately 26% of the total Bahraini families located below the poverty line, but with aid and subsidies provided by the government - to be breakdown later - the percentage gets much lower.

4.2.2. Government policies to combat poverty in Bahrain

The reduction of poverty and the poor in Bahrain is attributed to the Government's efforts to reduce poverty and the poor within the local community through the adoption of many policies and procedures that are not only intended to provide financial and material assistance to such people, but work on improving their living to integrate them in society, some of those policies and procedures are as follows:

- Assist poor families to establish productive projects to help them increase their levels of income, including the project to support small and medium industries / Micro start / and the productive families projects. This was aided by the establishment of the family Bank in March 2007, which provides accessible small loans to low-income groups and the poor, to help them in the establishment of small projects as a nucleus for larger projects in the future, as well as the efforts by the National Bank of Bahrain in the same regard.
- Work to eliminate the rate of unemployment through the national recruitment project, which was established during the period from January 2006 to June 2007, with a registered number of 22 100 citizens, 5425 citizens were trained, and 17 259 citizens were employed, and there are 1542 in the process of completing the recruitment procedures (Commercial newspaper, No. 31, 2007). The unemployment rate in Bahrain was stabilized at 3.6% 70% of them are females, the number of unemployed reached 5226, while the number of vacant posts was 10 015 jobs according to the report of the Minister of Labor for the last quarter of the year 2010 on the persons entitled for compensation against unemployment and for the data of training and vacanciesⁱⁱ (Gulf news, No. 12015, 2011).
- Support people with special needs, a monthly salary of fifty dinars per month for the disabled has been allocated, and the number of beneficiaries from this support until the month of December 2007 was approximately 4988 disabled, on the other hand, the Ministry of Social Development had employed 500 disabled during the years 2006 and 2007 (Gulf news, No. 10856, 2007).
- Sponsorship of Bahraini orphans by the Bahrain Royal Charity Organization which was established in July 2001, the number of beneficiaries is about ten thousand orphan and widow.
- Continuous work to increase wages in the public sector to keep pace with the increase in prices, and help the private sector to increase the wages of its employees

as well. Government has identified the minimum wage at 200 dinars per month, and the minimum pension of 180 dinars per month.

- Allocate a larger share of the Kingdom's budget to projects that benefit low-income families and the poor, for example, new housing projects, and the restoration ramshackle houses and others.
- Continuous cooperation with international organizations working in the development field to provide integrated social programs in line with the policies of the Kingdom, for example, the agreement of cooperation between the Ministry of Social Development and the World Bank signed in November 2006 which aims at implementing a project to support the social security network in the Kingdom and work on the development of needy families through the training and rehabilitation of a hundred poor families, as well as the role played by the Ministry of Social Development since becoming an independent entity by the Royal Decree No. 29 of 2005 through its effective contribution in improving the living standards of needy families through the provision of adequate employment opportunities and provide financial and material assistance to them.

4.3. Income Inequality in Bahrain

The distribution of income in the Kingdom of Bahrain between Bahraini families through the analysis of the disparity in wages, income inequality, and disparities in access to education is discussed as follows:

4.3.1. Wage Inequality

The total disparity in wages can be calculated by dividing the wages of the ninth decile on the wages of the first decile, the data showed worsening disparity between the two classes between 1993 and 2000, where the ratio was 5.4 points in 1993 increased to 8 points in 2000. The disparity index between the least wages is calculated by dividing wages of the fifth decile on the wages of the first decile, the index showed improvement, dropping from 2.6 in 1993 to 2 in 2000. Estimates of the research on income and expenditure of the family in Bahrain 2005 / 2006 showed that 18% of the total households sample with an average wage less than 2400 dinars per year, while just 1% of them on an annual average wage of more than 30000 dinars (household expenditure and income survey, 2005/06). To illustrate the disparity in

wages in detail we will discuss the disparity in wages between the sexes, between the public and private sectors, and by the level of education as follows:

A - Wages inequality between the sexes

Table (4) shows the average wage in March 2006 by type and nationality. Data from the table indicate that the disparity in pay between the sexes in the public sector is slightly in favor of males, increasing significantly in the private sector, where the difference between wages is 168 dinars per month in favor of males. In the semi government sector, the disparity in pay is for females with a difference of 24 dinars per month on average for Bahraini employees. It is slightly different for non-Bahraini workers, where the disparity is in favor of males in the public and semi government sector, but not in the private sector.

Table (4) Average wage level during the month March, 2006 by sex and nationality (BD)

Sector	Bahraini			Non- Bahraini		
	Man	Woman	Total	Man	Woman	Total
Government establishment	579	574	577	787	758	777
Semi-government establishment	765	789	771	1330	1130	1321
Private establishment	462	294	419	189	260	194
Total	515	452	495	221	334	230

Source: Establishment wages structure & distribution survey, 2006.

B- Wages inequality between public and private sectors

Table (5) shows the evolution of monthly wages in Bahrain during the period 2002 to 2006, where the level of monthly wages in the public sector reaches 700 dinars Bahrain in 2006 or 8400 dinars per year, while the monthly wage in the private sector reaches 210 BD, or 2520 dinars per year for the same year. And then there is a disparity in pay between sectors, as a result the Bahraini worker prefers to work in the public sector rather than the private sector. It is clear that the data in the table shows some differences in average wages from the previous table the reason is that the data in Table (5) was calculated as the average wage in a year, while data in table (4) is for the average wage for the month of March only. According to the Human

Development Report for the year 2007, the average income in Bahrain is 8120 dinars per year, or 677 dinars per month (Human Development Report, 2007).

Table (5) Average monthly wage in public and private sectors (2002 – 2006)

Year	2002	2003	2004	2005	2006	2002 – 2006
First: Private Sector	221	219	214	207	210	- 1.27
Male	220	217	211	201	203	- 1.99
Female	227	238	246	254	276	5.01
Bahraini	356	355	364	372	414	3.85
Male	393	387	400	405	454	3.67
Female	250	258	264	278	307	5.27
Non - Bahraini	164	163	160	154	156	- 1.24
Male	163	161	157	151	152	- 1.73
Female	189	203	215	216	230	5.03
Second: Public Sector	597	564	597	664	700	4.06
Male	627	591	607	696	742	4.3
Female	552	524	540	621	645	3.97
Bahraini	578	555	574	656	679	4.11
Male	597	575	597	682	706	4.28
Female	550	526	543	622	643	3.98
Non - Bahraini	780	647	622	739	884	3.18
Male	873	720	678	798	993	3.27
Female	569	493	495	601	660	3.78

Source: Dyer, P., Human Capital and the labor market in Bahrain, 2007

C - Wage inequality by nationality and level of education

There is no doubt in the existence of a close relationship between educational level and the level of remuneration, where the level of remuneration increases as the educational level of workers increase. This is reflected in table (6).

Table (6) Average wage level during month March, 2006 by nationality and education level (BD)

Education level	Bahraini	Non- Bahraini
Illiterate	394	90
Read & Write	262	96
Primary	328	99
Intermediate	329	104
Secondary	399	148
Diploma	591	424
BSc / BA	733	589
Higher Diploma	894	498
Master	1166	1071
Ph.D.	1757	1545
Others	684	643

Source: establishment wages structure & distribution survey, 2006.

4.3.2. Income inequality

To analyze the income gap, we will show the distribution of income between the Bahraini families by groups of professions, between sectors and between the provinces as follows:

A - between groups of professions

Estimates from the research on Income and Expenditure of 2005/2006 indicate that 345 Bahraini families have an average annual income between 27,000 to 96,000 dinars, and that the majority of households with income range between 4800-72000 dinars per year are those in the services business, followed by basic engineering assistance professions. A career like Director of Administration occupies top entry with an income starting from 30,000 dinars per year (Table 7).

Table (7) Average of Bahrain Households annual income by occupation groups of head of HH (2005/2006)

Annual Income Classes	Occupations Groups											Total
	1	2	3	4	5	6	7	8	9	10	11	
Less than 2400	2	1	2	-	3	1	-	1	2	10	23	45
2400 -	13	8	4	9	10	32	2	4	39	38	54	213
4800 -	24	10	14	27	9	96	8	5	52	18	59	322
7200 -	25	28	11	22	8	80	6	12	53	29	71	345

9600 -	23	17	11	27	6	58	3	6	35	25	49	260
12000 -	46	20	21	23	4	43	2	10	35	30	53	287
15000 -	41	15	9	12	2	33	3	3	17	17	40	192
18000 -	43	36	15	9	6	24	1	2	27	28	46	237
24000 -	40	18	3	4	1	12	-	2	6	13	24	123
30000 +	76	24	3	4	1	13	-	3	9	12	23	168
Total	333	177	93	137	50	392	25	48	275	220	442	2192

Source: Central Informatics Organization, Household expenditure and income survey 2005/06, Bahrain.

No.	Occupations Groups	No.	Occupations Groups
1	Administration & Business manager	7	Agriculture, animal husbandry & fishermen
2	Scientific, technical & humanities Professional	8	Supervisors, industry, chemical & food
3	Scientific, technical & humanities technicians	9	Plant, machine operations, assemblers & laborers
4	Clerical workers	10	Beyond working age limit
5	Sales workers	11	Not applicable
6	Service workers		

B - between sectors

According to estimates by the research on Income and Expenditure of 2005/2006, there are 28, 36 and 37 families whose average annual income is between 2400 and 4800 where the family head works in the private sector / personnel and private sector / company, and the government sector respectively. The number of families where head of household works in the government* sector with total annual income of 30,000 or more is 56 families of the total number of sample households (844 families) (Table 8).

Table (8) Average of Bahrain Households annual income by sector type of head of HH (2005/2006)

Group of Annual HH Income	Sector Type									Total
	1	2	3	4	5	6	7	8	9	
Less than 2400	4	5	1	-	-	-	-	10	25	45
2400 -	28	37	36	6	1	1	9	38	57	213
4800 -	26	56	139	7	-	2	12	18	62	322
7200 -	22	39	152	14	1	-	13	29	75	345
9600 -	17	34	109	22	-	-	4	25	49	260
12000 -	20	19	123	26	-	1	14	30	54	287
15000 -	10	20	87	14	-	1	2	17	41	192
18000 -	21	25	95	20	-	-	1	28	47	237
24000 -	12	13	46	12	-	-	2	13	25	123
30000 +	19	34	56	22	-	-	1	12	24	168
Total	179	282	844	143	2	5	58	220	459	2192

Source: Central Informatics Organization, Household expenditure and income survey 2005/06, Bahrain.

No.	Sector type	No.	Sector type
1	Private / individual	6	Others
2	Private company	7	Outside establishment
3	Governmental	8	Beyond working age limit
4	Joint	9	Not applicable
5	Co-operative		

C - between governorates

Table (9) reflects the distribution of income between regions of the Kingdom. The table shows that 18% of the families of the Northern Province have an average annual income of 7200 and 9600 dinars. And that 11%, 9%, 9%, 6% and 5% of the families of the Muharraq, Central, South, North and the capital provinces get the highest category of the average annual income.

Table (9) Average of Bahrain Households annual income by governorate (2005/2006)

Annual income classes	Governorate					Total
	Capital	Muharaq	North	Middle	South	
Less than 2400	11	7	14	11	2	45
2400 -	38	29	72	64	10	213
4800 -	45	49	126	78	24	322
7200 -	40	56	141	99	9	345
9600 -	26	45	104	73	12	260
12000 -	35	39	104	99	10	287
15000 -	24	31	73	54	10	192
18000 -	19	49	68	94	7	237
24000 -	13	26	39	43	2	123
30000 +	15	34	36	74	9	168
Total	266	365	777	689	95	2192
% of total	12.14	16.65	35.45	31.43	4.33	100.00

Source: Central Informatics Organization, Household expenditure and income survey 2005/06, Bahrain.

D- between income groups (Quintiles)

When calculating the distribution of income by quintiles, it is clear that the level of income on the first quintile is less than 4641 dinars per year, income of the second quintile ranges between 4642 and 8232 annually, while the estimated annual income of the third quintile is between 8233 and 12,680 dinars, while the estimated annual income of the fourth quintile is between 12,681 and 19,134 dinars, whereas the

annual income of the last quintile exceeded 19134 dinars .This means that 80% of the Bahraini families have an annual income of less than 19134 dinars, this also means that the fourth quintile of households has an income between 12,680 and 19,134 dinars per year, while the annual income of the fifth quintile is more than 19 134 dinars, meaning that 20% of Bahraini families earning more than the last figure (Table 10).

Table (10) distribution of annual income by quintiles (2005/ 2006)

Income Class	Income (Annual BD)	No. of HH
First Quintile	4641.338 -	258
Second Quintile	8232.348 -	925
Third Quintile	12680.488 -	1472
Fourth Quintile	19134.177 -	1901
Fifth Quintile	Above 19134.177	2192

Source: calculated by the author from Household expenditure and income survey 2005/06

4.3.3. The level of inequality in income and educational level

Table (11) shows that the proportion of illiterate and those who know how to write only to the total number of sample households has decreased from 40.7% to 19.9% and again to 14.1% in the years 1983/84 and 1994/95 and 2005/06 respectively. The table also reflects some correlation between the average family income and the education level of the family head. The table shows the relationship between educational level of the family head and the level of annual income during the period 1983/84 - 2005/2006.

Table (11) Distribution of HH by annual HH income and educational status (1983/84 – 2005/06

Groups of annual HH income	Illiterate / Read only			Read & Write			Primary			Intermediate			Secondary			Above Secondary			B. Sc. / B. A. & above			
	1983/84	1994/95	2005/06	1983/84	1994/95	2005/06	1983/84	1994/95	2005/06	1983/84	1994/95	2005/06	1983/84	1994/95	2005/06	1983/84	1994/95	2005/06				
less than 2400	72	69	12	8	22	6	7	13	8	2	27	3	1	39	12	0	4	2	1	1	46	4
2400-	122	176	50	49	102	24	31	97	38	20	94	41	16	130	48	3	47	8	1	3	101	12
4800.	83	134	30	43	88	28	24	104	53	26	96	79	31	143	109	12	51	11	3	3	76	24
7200.	60	69	57	28	53	30	12	30	46	23	49	67	18	93	107	7	33	14	3	3	67	16
9600-	25	59	42	28	29	24	15	25	34	4	26	47	17	61	77	3	31	20	3	7	69	34
12000-	19	51	36	17	17	30	8	20	46	2	17	36	9	39	83	5	21	22	7	7	69	34
15000-	9	12	29	10	20	20	3	10	18	2	10	32	3	23	43	8	23	17	2	2	41	33
18000-	6	17	26	10	12	18	4	9	21	5	6	26	5	35	66	2	11	33	6	6	60	47
24000 +	8	12	26	11	21	15	5	5	24	3	5	22	10	30	55	5	24	31	8	8	104	118
Total	404	599	308	204	364	195	109	313	288	87	330	353	110	593	600	45	245	158	34	34	572	290

Source: Central Informatics Organization, Household expenditure and income surveys 1983/84, 1994/95, and 2005/06, Bahrain.

Figure (3) shows a decrease in the coefficient during the mentioned period from 63.1 to 60.8, to 48.5, to 44.3, and to 39.1 in the years 1980, 1983, 1994/95, 2000, and finally 2005/06 respectively.

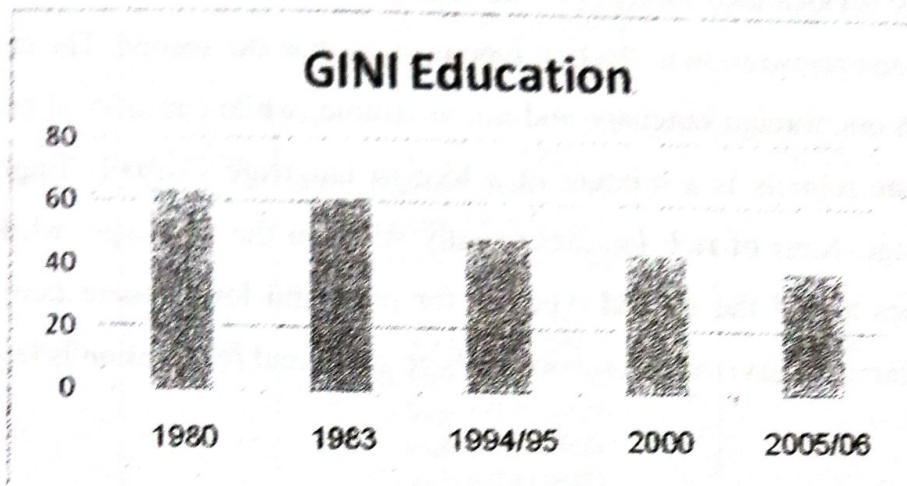


Figure (3) Gini Education in Bahrain (1980 – 2005/2006)

Source: Thomas, Wang, and Fan (2001) for years 1980 and 2000, the author for other years

The impact of education in Bahrain on the distribution of income comes as a result of the difference in effectiveness between different educational institutions in the Kingdom, there are a lot of educational institutions that offer special curriculums like the America, English, Indian and Pakistani schools, as well as higher education institutions, which leads to varying efficiency of graduates and therefore their ability to engage in the labor market. Also, we should not overlook the great disparity in the study costs between those institutions and the impact on income distribution at the present time and in the future, as already mentioned above.

As shown before, the demand for education affects the level of per capita income and can be then a reason of income inequality. The difference in the demand for education in both quality and quantity may be due to the disparity in tuition fees on the one hand and disparities in the availability of schools with high Geographical efficiency on the other.

A - Difference in costs of study

The difference in the cost of education is one of the characteristics of education in Bahrain, in view of the remarkable diversity in the quality of educational institutions, where the majority use a curriculum designed by them, mostly a mixture between the

curriculums of the Ministry of Education in Bahrain and other curriculums presented by them to characterize the school from others. Table (12), shows the disparity in tuition and registration in some private schools operating in Bahrain. Private schools in Bahrain are divided into foreign private schools, and national private schools. The cost of study and registration in the first type is more than the second. The study in the first type is in one foreign language and not in Arabic, while educational language in national private schools is a mixture of a foreign language - usually English - and Arabic language. Sons of rich families usually study in the first type, while sons of middle families attend the second type, as for poor and low-income families, they send their children to government schools, where study and registration is free.

Table (12) tuition and registration fees at selected private schools in Bahrain
2009/2010

No.	School Name	Curriculum	Annual tuition fees	Education Language	Registration fees
First: Foreign Private Schools					
1	Al Mahd	British	K.G. (BD 450) Grades 1-6 (BD 650) Grades 7-9 (BD 850) Grades 10-11 (BD 1050)	English	25
2	Saint Christopher	British	K.G. (BD 2333) Pre- school (BD 2886) Grades 1-2 (BD 2886) Grades 3-6 (BD 3276) Grades 7-8 (BD 4104) Grades 9-11 (BD 5148) Grades 12-13 (BD 6261)	English	50
3	Delmon	British	K.G. (BD 870) Perception (BD 870) Grades 1-2 (BD 900) Grades 3-6 (BD 1050)	English	100
4	French	French	K.G. French and Bahraini students (BD 1402) others (BD 1694) Grades 1-5 French & Bahraini (BD 1733) others (BD 2058) Grades 6-12 French & Bahraini (BD 2659) others (BD 3215)	French	250

5	British	British	K.G. (BD 2055) Pre-school (BD 2613) Grades 1-2 (BD 2613) Grades 3-5 (BD 2973) Grades 6-8 (BD 3720) Grades 9 (BD 3891) Grades 10-11 (BD 4071) Grades 12-13 (BD 5316)	English	100
6	International Bahrain	American	K.G. (BD 5366) Grades 1-6 (BD 5366) Grades 7-8 (BD 5646) Grades 9-12 (BD 5931)	English	455
7	International IMI	American	K.G. (BD 1056) Grades 1-6 (BD 1089) Grade 7 (BD 1452) Grade 8 (BD 1551) Grade 9 (BD 1683) Grades 10-12 (BD 2362.5)	English	150

Secondly: National Private Schools

1	Ibn Khaldoun	American + IB	K.G. (BD 2025) Grades 1-5 (BD 2450) Grades 6-8 (BD 2800) Grades 9-10 (BD 3175) Grades 11-12 (BD 3550)	English & Arabic	100
2	Bayan	American + IB	K.G. 1 (BD 1980) K.G. 2 (BD 2340) Grades 1-5 (BD 2540) Grades 6-9 (BD 2840) Grades 10-12 (BD 3180)	English & Arabic	200
3	Naseem	American + IB	K.G. 1 (BD 1820) K.G. 2 (BD 1920) Grades 1-5 (BD 2150) Grades 6 (BD 2400) Grades 7-8 (BD 2410) Grades 9-10 (BD 2630) Grades 11-12 (BD 2680)	English & Arabic	200

Compiled by the author from private education department, ministry of education, Bahrain

B - Difference in the availability of private schools in different governorates

This disparity may be in terms of quantity, quality or both quantity and quality. Figure 4 states that the regions that suffer from the low level of family income are those regions that suffer from a lack of the number of private schools. The number of families in the southern province whose average annual income comes between

12000 and 18 000 is 10 families from a total of 95 families or 10.5% in 2005 / 06, Muharraq province ranked second in terms of lower number of households. The number of private schools in these two provinces is two schools in the southern province and seven schools in the Muharraq Governorate. In contrast, the number of private schools in Central and capital Provinces is 25 and 21 schools respectively in the same year, the number of families in both Provinces whose average annual income is between 12000 and 18000 is 99 and 104 respectively, representing 14.4% and 13.4% from the total sample.

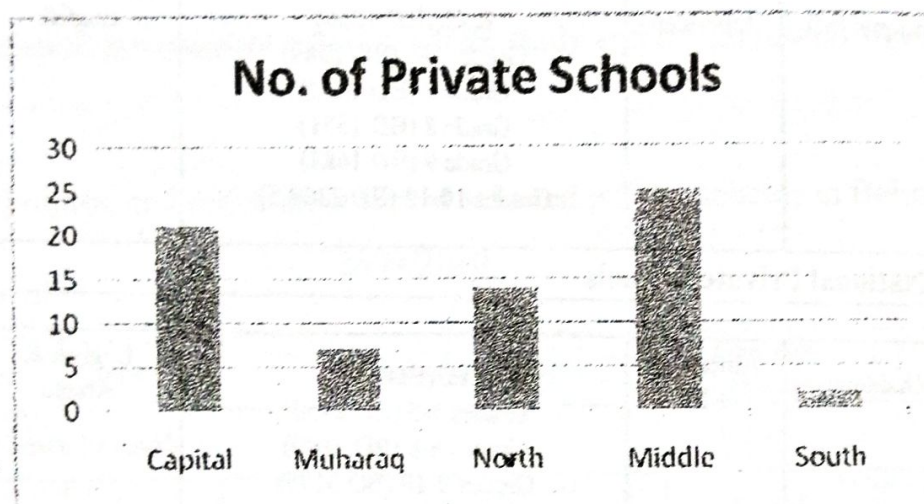


Figure (4) distribution of private schools by governorate 2009/2010

Source: Household expenditure and income survey 2005/06.

C – Difference in access to employment, according to the educational level.

Table (13) indicates the need to have a level of education for the chance to work, where the ratio of those enrolled in the labor force increases with high level of education up to secondary school, and then begins to decline due to the high level of remuneration paid to higher levels of education on the one hand and, the low number of holders of such levels from the total labor force in Bahrain.

Table (13) distribution of work force by educational level, 2006

Education level	Bahraini %	Non Bahraini %
Illiterate	0.8	3.7
Read & Write	1.8	19.3
Primary	5.8	14.1
Intermediate	11.9	11
Secondary	45.9	29.2

Above Secondary	15.1	7.9
BSc / BA	13	8.9
Higher Diploma	1.5	1.1
Master	2.3	2.3
Ph.D.	0.9	1.2
Others	0.9	1.2
Total	100	100

Source: establishment wages structure & distribution survey, 2006

5. Concluding Remarks

There are no Bahraini families under the extreme poverty line, while an equivalent of 26% of Bahraini families are under the absolute poverty line according to the poverty line in Bahrain for the year 2005/2006, which was calculated from the research on Household Income and Expenditure for the year 2005/2006. However, this percentage may be reduced significantly through the various policies pursued by the government in Bahrain to help poor families and reduce poverty. There is no doubt that education is an important and influential factor in poverty and income distribution, through its impact on the level of remuneration and the career opportunities available. Based on the analysis of data from household expenditures and income surveys shows a positive correlation between the level of education of the family head and family income. Poor families and poor areas suffer from low chances to obtain high quality education, and then less chance of getting a job with an appropriate salary which leads to low income and a lesser chance for a quality education leading to a vicious cycle in the relationship between level of income and education, which consequently leads to widening the income gap between future generations. There is variation in the level of wages in the public sector between Bahraini and foreign workers, where the average monthly wage of a foreign worker is 884 dinars in 2006 which may be due to the high skill level of the foreign worker in that sector. The difference in the educational institutions available in Bahrain causes disparity in the skills of graduates, leading to a difference in the career opportunities available, and then wages levels. The disparity in pay levels between the public and private sectors cause the Bahraini labor to favor work in the public sector over the private sector, where the Bahraini employment in that sector is equivalent to 90% of

total employment in 2005, a rate unchanged for a long period. Inequality in education attainment in Bahrain had been declining during the period 1980 – 2006, this results support the theoretical and empirical literature on education and income inequality nexus. For instance, Thomas, Wang and Fan (2000) measured Gini education for population age over fifteen, using two different methods for 85 countries from 1960 to 1990. They found that education inequality for most countries in their sample declined during the period.

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ⁱ for more details about the effects of informational revolution on labor skills and wages, please see:

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ⁱⁱIn October 2006, the Government of Bahrain passed the law of insurance against unemployment, which is funded through deducting 1% of the salaries of employees, the law grants BD150 per month for the unemployed university graduates and BD 120 for the non-graduate unemployed.