# And the second s

Introduction & Educational System and Educational Attainment



#### CHAPTER ONE

#### INTRODUCTION

#### 1.1 Education in the Modern World

As the world economy moves towards a global market and world trade flourishes, countries find that their well being and economic growth potential lies increasingly with their success at integrating themselves in to a global market. Further, growth increasingly depends upon the value human beings give to products and services. This "value added" and "service" oriented economic growth is derived from the quality of human input-education, expenditure, creativity and analytical skills. Both the globalization (or regionalization) and value added trends point to one resource in particular - human capital. Education is gradually becoming the primary source of economic growth and social well being <sup>1</sup>.

Whereas the global economy plays an increasingly dominant role in setting the economic parameters whereby, the family of nations must compete. The key to economic growth and stability for any given country or region is a careful analysis of local contexts, needs, strength and possibilities. Jordan can play an increasingly key role within the middle-east region as a provider of services, such as banking, engineering, software and information source development management and applied research will all need to take place on regional basis and Jordan's growing population of educated people and political stability make it a prime possibility for the centre of such services.

<sup>1.</sup> National Centre for Educational Research and Development (NCERD) Lynn Ilon, Educational Finance in Jordan: Final Report, Series No. 32, Dec, 1993, NCERD, Jordan.

Twenty five years age, Jordan launched a programme to create human capital. Since that time, education has expanded rapidly. Today's young population are nearly all in school, while the literacy rate for the population of the age group of 15 years and above has crossed 92 percent.

#### 1.2 Economics of Education

Until the 1950's education received only a slight and sporadic attention from economists. Several reasons for this situation may be mentions here, firstly the role of education in the national economic was still relatively small. A rather miner activity from economic point of view, arguably education did not merit wide attention. Secondly the long established patterns of thinking emphasized the view that wealth was something material and physical. Education was not viewed as a source of wealth or capital in the then generally accepted meaning of the terms. And thirdly economic research emphasized taxation and government's revenues more than the government's many spending functions, of which education is a function.

By 1960's the formal education was recognized and has become economically interesting while, the economics of education was formally accepted as a branch of economics. T.W. Schultz used the term in 1960, while addressing the American Economic Association. This was followed by the World Yearbook on education (1965) which devoted an article on economics of education. However, a number of economists showed interest in the economics of education during the past forty years <sup>2</sup>.

<sup>2.</sup> S.Natarajan, Introduction to Economics of Education, sterling Publishers Private Ltd, 1990.

The Economics of Education is a branch of economics says Prof. Mark Blaug <sup>3</sup> " It deals fundamentally with the impact of education on such phenomena as the occupational structure of the labour force, the recruitment and promotion practices of employers... and, most general of all the prospects of economic growth".

Acquisition of education in a modern economy provides opportunities for individuals to invest in themselves. Public educational expenditure, by and large, is a reflection of individual choices and individual decisions are profoundly influenced by expected economic returns. This opens the door both to an economic analysis of the private demand for education and the formulation of economic criteria for the collective provision of educational facilities. It is this insight that has inspired the present research to analyse the economic aspects of education in Jordan.

#### 1.3 Economists view of Education

Many of the great economist have long been aware of human resource development. Adam Smith who was a moral philosopher as well as economists stressed the importance of education at various points in the "Wealth of Nations". He viewed education as a kind of capital which embodies acquired knowledge and skills <sup>4</sup>.

Education was at the centre of his thinking as it was the basis of good civil government, economic activities and progress. He noted that Scotland of his days had superior intelligence and her people had providential and orderly habits due to the national system of education <sup>5</sup>.

Blaug Mark, An Introduction to Economics of Education, Allen Lane. The Penguin Press, London. 1970

<sup>4.</sup> Smith Adam, Wealth of Nations 1776, published Ravelon House Inc 1937 book II pp- 265 -266

<sup>5.</sup> Ibiden-3

Smiths's friend and contemporary David Hume shared these views and if there was a difference it was that Hume disliked the evils of traditional religion even more than Smith did. So the first economic debate about education was between two of the greatest Scotch philosophers. In this debate Smith preferred competition to enthusiasm, David Hume loathed enthusiasm more than established indolence. It was a difference of emphasis. In his review of society, Adam Smith found the universities maintained by law and endowments in a position of monopolists of learning <sup>6</sup>.

Ricardo and Malthus argued that the increase in economic well-being of the mass could be derived by decreasing the population or increasing the capital. Malthus observed the causes which tend to generate prudential habits, the most essential ones are civil and political liberty which is generally necessary. Education can do much under a good government. He advocated parish schools as a mass education would lead to family limitations.

J.S. Mill advocated public education as it inculcates habits of prudence, economy and self- improvement which is carried further - "for the purpose, therefore, of altering the habits of the labouring people, and effective national education of the children of the labouring class is the first thing needful <sup>7</sup>.

Alfred Marshall developed the educational ideas of Adam Smith by describing education as a "National Investment". Marshall advocated the education of the working class and favored technical education. He pointed out the impact of the family, especially of women on the betterment of children's environment and intelligence and of this views that, "The most valuable of all capital is that invested in human beings", he emphasized continually the importance of education <sup>8</sup>.

<sup>6.</sup> John Vaizay, The Economics of Education, Faber and Faber, pp 16.

<sup>7.</sup> Mill, The Principles of Political Economy, London, 1867, pp 263 (Book II, Chapter XIII).

<sup>8.</sup> Fredrick H and Charles Myers, Education Manpower and Economic Development, MacGraw-Hill series in International Developments.

Karl Marx was agitated over the inhuman results of the division of labour and the exploitation of the working class. He pointed out that when the working class comes into power as invariably, it must give technical instructions both theoretical and practical will take its proper place in the working class schools <sup>9</sup>.

Modern economicts, however have not paid as much explicit attention to human resources development in economic growth as did some of the great classical economists like Smith and Marshall. It was perhaps because physical capital was measurable, and a capital output relationship was given an apparent quantitative respectability. Some modern economists virtually ignored the human resources factor in economic development, but within the past four decades particularly during 1960's human resources especially education has become economically interesting. On the one hand, economists wished to account for the substantial economic growth that America enjoyed during the first half of the century. It was believed that understanding the reasons for this growth might lead to its expansion. On the other hand policy makers wanted to known how much further expansion of the educational system was justified in economic terms and what fields of study government should attempt to emphasize. These consideration prompted a new view of education.

The production of knowledge is an economic activity, as an industry. Economists have analyzed agriculture, iron and steel production... but they have neglected to analyze the production of knowledge, as this view of education became more generally accepted, academic attention grew, the decade of the 1960's produced a large number of studies relating to the economic analyses of education.

<sup>9.</sup> Ibiden - 5

In his presidential address to the American Economic Association in 1960s T.W. Schultz said "The failure to treat human resources explicitly as a form of capital, as a produced means of production, as the product of investment, has fostered the retention of the classical notion of labour and skill, a capacity with which according to this notion, labourers are endowed about equally. This notion of labour was wrong in the classical period and it is patently wrong now" <sup>10</sup>.

The economists views presented above can be taken to show that the economics of education has a respectable ancestry: Adam Smith, Marx Marshall, Schultz and others have recognized its importance, it seems that expenditure on education pays, and that it can play an important part in helping an economy to grow.

#### 1.4 Education and Economic Growth

Before turning to a more detailed review of the educational contribution to economic growth, there is a need to stress that the process of human resource development is also necessary for the transformation of social and political institutions which people in the modern nations are seeking. This objective cannot be divorced from that of economic growth in any realistic analysis leading to policy prescriptions<sup>11</sup>.

<sup>10.</sup> Schultz, Investment in Human Capital, The American Economic Review, Vol. 51, No.1 pp-3, March 1961.

<sup>11.</sup> These views were presented in a diagrammatic model form by Paul Jordan. Hanna, Conventional and Unconventional Education in Newly Developing Countries. Reprinted from America's Emerging Role in Overseas Education, Syracuse University, School of Education, 1962.

The concept that investment inhuman being promotes economic growth actually dates back to the time of Adam Smith and early classical economists who emphasized the importance of investing in human skills. In the 1960's Schultz (1961) and Dension (1962) showed that education contributes directly to the growth of national income by improving the skills and productive capacities of the labour force <sup>12</sup>.

Dension's (1967) attempt to explain the U.S. economic growth between 1950-67 (based on the growth accounting approach) he found that the contribution of education to economic growth in U.S.A. to be only 15 percent compared to 23 percent of a previous study of the economic contribution of education over the period 1930-1960, while that in other advance countries it has varied considerably from 2 percent Germany to 12 percent in the U.K. and 25 percent in Canada.

Schultz's (1963) measurement of the contribution of education to economic growth (that in terms of rate of return to human capital) led him to suggest, as Dension had, that a substantial proportion of the rate of growth and output in the United States was due to investment in education.

Education is a good investment says C.A. Moser <sup>13</sup>. However, it is the lower educational levels that exhibit the highest returns. In these criteria university education is marginally a good investment. Of course, the private returns to all levels of education are much higher than the social ones, when the returns are viewed across countries, the pattern is that less developed countries enjoy higher returns to educational investment than more advanced countries.

<sup>12.</sup> G.Psacharpouls, M. Woodhall, Education for Development, Analysis of investment choices, Oxford University Press, 1985.

<sup>13.</sup> From the foreword by C.A. Moser in G. Psucharopoulos, Returns to Education - An International Comparison New York, Elsevier, publishing house company, 1973.

Table No.1.1 presents the contribution of education to economic growth of selected countries which shows that the contribution of the primary education to economic growth is much higher than that of the secondary education, while the secondary education contribution to economic growth is higher than the higher levels of education. This table also shows the economic contribution of education in less developed countries like Colombia was around 24.5 percent, while in an advanced country like the U.S.A. the educational contribution to economic growth was lower at 17.9 percent.

Thus it can be concluded that expenditure on education is like any outlay on creation of assets for the future. It is an important investment expenditure with significant influence on the growth process. The increased education of the labour force appears to explain a substantial part of the growth of output in both developed as well as developing countries.

Jordanian plans do show the basic awareness of the important of education in securing rapid growth. In the allocation of these resources expansion of educational facilities is not ignored, whether the priorities laid down in the plans in the sphere of education and the achievements actually recorded conform to the larger goals is a matter to be examined.

Nevertheless, Jordan economy is already moving towards a service emphasis. Fully, 26.2 percent of the GNP in 1992 came from exports having gone up from 17.9 percent in 1988. This production comes increasingly from services. Nearly 66 percent of Jordan GNP is derived from "Services" as opposed to more traditional production. In real terms the growth of service production has outpaced the growth of GNP by four percent in the four years period (1989-92). In an economy where services play a key role is an economy where education is the raw material <sup>14</sup>.

<sup>14.</sup> Lynn Ilon and Hisham Al-Dajah (NCERD) Education and Training in Jordan: A Descriptive and Financial Survey - Publications Series No. 30, December 1993, pp-1

TABLE No. 1.1

# The Contribution of Education to Economic Growth by Educational Level and Country

(in percentage)

Countries	Primary	Secondary	Higher	Total Contribution = 100
United States	43	31	26	17.9
Mexico	59	29	12	13.2
Venezuela	69	22	9	14.8
Colombia	54	39	7	24.5
Chile	56	34	10	11.4
Israel	46	36	18	4.7
India	35	53	12	34.4
Malaysia	43	49	8	14.7
Philippines	18	50	32	10.8
South Korea	38	56	6	15.9
Nigeria	63	25	12	16.0
Ghana	37	49	14	23.2
Kenya	38	53	13	29.8
Jordan	34*	53	13	29.8
Average	45	41	14	17.4

<sup>\*</sup> This comprises Primary and preparatory cycles.

#### Sources:

- 1. George, Economics of Higher Education in Tamil Nadu, State India Ph. D. thesis, Dept. of Economics, Arts Faculty, M.SU. of Baroda, Table No. 1-1 pp.5.
- 2. NCERD, Bibliography of Research and Studies in Basic Education in Jordan , 1970-1990. NCERD, Govt. of Jordan , 1991 pp-43.

# 1.5 Education as Consumption or Investment

Goods and services can be broadly divided into two classes. Those from which consumes derive immediate benefit which are called consumption and those which are used in production to produce over a long term is called investment. Education must be one or the other or both.

However, the investment includes two conditions:

- 1. The expenditure must not be made to satisfy an immediate want.
- 2. The expenditure must yield return.

Expenditure on education is to a very large degree in the nature of investment as the two conditions are present. Education is pursued not only to satisfy cultural wants but also out of economic considerations. The investment formed by education may be divided into two parts.

- a) A future consumption component.
- b) A future earnings component.

As an enduring consumer component education is the source of future utilities <sup>15</sup>. This part of education says Prof. Alba Lersier is "Investment". Education for skills and knowledge <sup>16</sup>, useful for economic endeavor, adds Prof. Schultz it is an investment in future earning <sup>17</sup>.

<sup>15.</sup> P.P George, Economics of Higher Education in Tamil Nadu State - India, Ph.D. thesis (unpublished), Economic Department, Arts Faculty, M.S. University of Baroda.

<sup>16.</sup> P.P George, pp-3, Ibiden - 14.

<sup>17.</sup> Schultz, The Economic Value of Education, New York, 1963.

Some economists view education as a consumption good. John M. Keynes considered general education in U.S.A. as mere consumption. Only when learning is merely to spend the leisure time or for pleasure without any economic motives, we may term it as consumption learning, classical languages, fine arts, and games in most of the cases is consumption activities. Courses in humanities - some of them are called non-utility subjects - do not provide for better economic welfare. For many house wives, higher education is merely a status symbol <sup>18</sup>.

Whether education is just consumption or an investment depends upon the economic level of a country. Maybe, it is a consumption activity in advanced countries like U.S.A., but it may be treated as a durable consumer good in semi-advanced countries and could be an investment for developing countries, if priorities and choices are intelligently selected <sup>19</sup>.

<sup>18.</sup> S. Natarajan, Ibiden 2, pp-2

<sup>19.</sup> S.Natarajan, Ibiden 2, pp-2

#### 1.6 A Review of the Literature in the Economics of Education

Due to increasing economic importance of education during the last 40 years a large number of studies have been produced in this area. In the following paragraphs we mention few of them.

Jallade's (1973) study of Financing of Education led him to predict that the educational expenditure would absorb a growing share of both the budget and GNP <sup>20</sup>

Hultin (1975) in his study the Costs of more and Better Education in Developing countries pointed out that the trends in total costs and the recent slowing down of the growth in educational expenditures coupled with continuing social demand, all indicate that cost of educational investment must be reduced if the profitability is to increase and if further expansion improvement is to take place, despite budgetary constraints <sup>21</sup>.

Meerman (1980) in the study of Paying for the Human Development including education led him to say that if low income countries rely chiefly on central government resources, most of the them will be unable to provide a minimum effective standard of human development for their population as a whole <sup>22</sup>.

Wheeler (1980) in his study, Human Resources Development and Economic growth in Developing countries collected data for 88 developing countries and tried to find the relation between human development and economic growth. According to him that on the average an increase in the literacy rate from 20 percent to 30 percent causes national income (GDP) to increase by 8 to 6 percent <sup>23</sup>.

<sup>20.</sup> Jallade, Jean-Pierre. 1973, The Financing of Education, An Examination of Basic Issues, World Bank Staff Working Paper No. 157, Washington D C.

<sup>21.</sup> Hultin, Mats, 1975, The Costs of More and Better Education in Developing Countries. World Bank Staff Working Paper No. 216, Washington D.C.

Easterlin (1981) examined the relationship between investment in education and economic growth in 25 of the largest countries in the world, he concluded that the spread of the technology of modern economic growth depended on the greater learning potential and motivation arising from the development of formal schooling<sup>24</sup>

Psacharopoulous (1981) examined the private and social returns to educational investment in 44 countries. According to him, the social rates of return to education is much lower than that of private rates of returns, the private rates of returns is higher in developing countries than in developed countries and the social and private returns of primary tend to be higher than the rate of returns to secondary or higher education <sup>25</sup>.

Psacharopoulous (1982) in his study of Diversified Secondary Education and Development pointed out that one reason for the very high unit costs in Africa is the low level of enrollment and he suggested that the expansion of higher education may enable some developing countries to reduce cost per pupil <sup>26</sup>.

Jamison and Lan (1982) in their study of Farmer Education and Farm Efficiency have concluded that education does indeed help to raise incomes and increase levels of production <sup>27</sup>.

<sup>22.</sup> Meerman Jacob,1980 Paying for Human Development in implementing programmes of human development ed. Peter T.Knight, World Bank Staff Working Paper No. 403, Washington D.C.

<sup>23.</sup> Wheeler D, 1980, Human Resource Development and Economic Growth in Developing Countries. World Bank Staff Working Paper No. 407, Washington D.C.

<sup>24.</sup> Easterlin R, 1981, Why isn't the whole world developed? Journal of Economic History 41, (March): 1-19.

<sup>25.</sup> Psacharopoulous G, 1981, Returns to Education, An Updated international comparison, Comparative Education, 17(3): 321-41.

<sup>26.</sup> Psacharopoulous G, & W. Loxley, Diversified Secondary Education and Development: Evidence from Colombia and Tanzania, Baltimore, Md. Johns Hopkins University Press.

<sup>27.</sup> Jamison Dean T., and Lawrence J. Lau, 1982. Farmer Education and Farms Efficiency, Baltimore, Md. Johns Hopkins University Press

Eicher (1984) in his study of the Educational Costing and Financing in developing countries provided information on the causes of high levels of educational spending. According to him from an analysis of data for 122 countries that between 1960 and 1976 the enrollment ratio for the age group 6-11 years is the most important variable to explain variations in educational expenditures as a proportion of GNP. He also pointed that the demographic pressure is such that even if the proportion of GNP devoted to education continues to rise until the end of the century, universal primary education will still not be achieved in either Africa or Asia 28.

Lee (1984), Lee in his study of Universal Primary Education concluded that Universal Primary Education is unlikely to be achieved by 2020 unless unit costs are reduced, or a greater proportion of the GNP is devoted to primary education <sup>29</sup>.

It will not be out of place here to take note of various studies of the educational expenditure and its financing in Jordan made by various scholar and research workers.

Darar Ali (1976) calculated the total cost per pupil at the different levels of education in Jordan during the period 1970-1975. He found that between 1970-1975 the total cost per pupil upto the end of his degree education in Jordan has increased by 23.5 percent. The government expenditure accounted for 85 percent of the total direct expenditure per pupil upto the end of the secondary cycle and 10 percent at the higher education <sup>30</sup>.

<sup>28.</sup> Eicher J.C, 1984, Educational Costing and Financing in Developing countries: Focus on Sub-Sahara Africa, World Bank Staff Working Paper No. 655, Washington D.C

<sup>29.</sup> Lee Kiong Hock, 1984, Universal Primary Education - An African Dilemma, Washington D.C, World Bank Education Department.

<sup>30.</sup> NCERD, Studies and Research on the Basic education in Jordan 1970-90. Part II 1991. Yarmouk University, Jordan (Arabic).

Abu Dayeh (1982) examined the total returns to the educational expenditure in Jordan by level of education. According to him the elementary and higher education yield a higher returns than secondary education at the end of this study, he recommended that expansion of higher education enrollment and he stressed the importance of improving the vocational education and extending the teacher training from two to fours years <sup>31</sup>.

Lyon Ilon and Hisham Al-Dajeh, (1993) calculated the entire expenditure on education including kinder-garden level. According to them the total educational expenditure in 1992 was 11.8 percent of the GNP of this 8.2 percent derived from government sources and 3.6 percent is contributed by private sector <sup>32</sup>.

Majed Bader, Azat Jaradat and others (1991) have examined the structure of financing pre higher education in Jordan over the period 1970-89. According to them, public expenditure on pre higher education accounted for 70 percent of the total, while private and UNRWA both provide 30 percent of the total. They also, found that the increased demand for education was due to the increase in the population <sup>33</sup>.

Majed Bader, Anwar Khasawneh and Malawi (1994) have calculated the private expenditure on government schools and estimated the private expenditure at all levels of education in Jordan. According to them the total private expenditure on education accounted for 5.01 percent of the GNP or 44.66 percent of the total educational expenditure in 1991-92 <sup>34</sup>.

<sup>31.</sup> Ibiden - 30.

<sup>32.</sup> Lyon Ilon and Hisham Al-Dajeh, (NCERD), Educational and Training in Jordan: A Descriptive and Financial Survey, NCERD, Govt. of Jordan, 1993.

<sup>33.</sup> Majed Bader, Azat Jaradat and others, Financing of Pre-Higher Education, Problems and Suggested Solutions -MoE, Govt. of Jordan, 1994.

<sup>34.</sup> Majed Bader, Anwar Khasawneh and Malawi, Private Expenditure in Education at the MoE Schools in 1991-92, MoE, Govt. of Jordan, 1994.

Again the same authors (1994) calculated the public cost per pupil in the ministry of educational schools in 1992-93. According to them salaries expenditure accounted for 95.4 percent of the recurring expenditure of the general education (Basic + Academic Secondary), 72.1 percent at the commercial education. While the proportion of the recurring expenditure to the total educational expenditure was 87.21 percent at the general education, 79.3 percent at the agricultural education and 88.4 percent at the commercial education <sup>35</sup>.

# 1.7 Objectives of the Study

The present thesis, Financing of Education in Jordan 1971-90 attempts to find out the following.

- 1. As the educational sector is the fast growing sector in Jordan and its expenditure presents a large portion of the national income. This study attempt to find out the proportion of national income devoted to education in Jordan and the growth behavior of the total educational recorded expenditure in terms of current prices as well as in real terms ( real purchasing power) over the period of our study.
- 2. Jordan has enjoyed a high level of educational attainment of its population and labour force. The present study would examine the relation between the educational attainment and the educational expenditure.
- Education is increasingly becoming expensive, therefore the burden of the education expenditure on public, private and UNRWA would be examined in this study.
- 4. The present study will find out and examine critically the allocation of the total recorded educational expenditure according to level of education.

<sup>35</sup> Majed Bader, Anwar Khasawnch and Malawi, Public Cost per pupil in MoE schools in 1992-93, MoE, Govt. of Jordan, 1994.

- 5. This study will also examine the improvement of the quality of education or the absence of it over the study period in the basis of various indices such as per pupil expenditure and teacher pupil ratio.
- 6. The expansion of the educational facilities in Jordan and linking the educational planning with that of the national development plans is one of the major goals of the policy makers in Jordan. Whether these goals in the sphere of education and the achievement recorded conform to the larger goals is a matter to be examined in this study.
- 7. This study attempts to find out the state of education in Jordan through international comparison.

#### 1.8 Time Coverage and Methodology of the Study

The present study attempts to cover a period of two decades from 1971-1990. The main reason behind selecting long range data is that it is long enough to analyse the changes and behavior regarding financing of education in Jordan from different angles. Moreover this time period has witnessed many economic and political changes in Jordan as well as in the middle east.

Different statistical techniques are used to examine the importance and behavior of the educational indicators pertaining to the present study such as percentage, ratios, growth rates, average etc.

The figures of the educational expenditure were given in terms of current prices therefore a part of the increase in this expenditure can be said to be fictitious or unreal in the sense that a part of this increases is contributed by the price increase. In order to be able to present some dependable comparative picture of the growth of educational expenditure, we had to express this expenditure in real terms and we have chosen the Consumer Price Index (CPI) published by the Central Bank of Jordan (CBJ) 1986 is the base line year.

We have assessed the quality of education in our study on the basis of changes in expenditure per pupil and the decline in the teacher pupil ratio. As the expenditure per pupil increases when the teacher pupil ratio falls (i.e. the number of students served by one teacher decreases) or when with the same teacher pupil ratio the quality of teaching improves. The quality of teaching maybe taken as improved when the teachers are better qualified and trained than before or the teaching aids provided in educational institutions are better and greater than before.

However, we attempt wherever possible international comparison to obtain an idea of the state of education in Jordan in compare with that of other countries though the international comparison has its limitation, but we were aware of such limitations in our research work.

# 1.9 Sources of Data

This study based on secondary data and information collected from different sources and publications for the purpose of analysis. Various publications and yearly and monthly statistical books which cover data on different aspects of national income, population, public expenditure, total recorded educational expenditure, enrollments, number of institutions number of teachers etc are used in this study. However, at the national level the useful and necessary data published in Jordan have been collected from:

- 1. Ministry of Education
- 2. Ministry of Higher Education
- 3. Ministry of planning (formally know as National Planning Council)
- 4. The Central Bank of Jordan (CBJ)
- 5. The National Centre for Educational Research and Development (NCERD)
- 6. Ministry of Information

Moreover, different statistical yearbook published by the World Bank and UNESCO have made use of such as:

- 1. World Development Reports
- 2. Human Development Reports
- 3. World Tables
- 4. World Education Reports
- 5. International Conference in Education Reports

The collection of data also includes a large number of published and unpublished information in Arabic and English languages. We were able to obtain from various agencies in Jordan.

#### 1.10 Plan of the Study

The present study of Financing of Education in Jordan 1971-1990 comprises the following parts.

Part I - Introduction and Educational Systems and Educational Attainment in Jordan. Consists of two chapters:-

#### Chapter one - Introduction:

This chapter we have mentioned the importance of education in the modern world from an economic point of view, the review of literature, objectives of the study, methodology followed in the study and source of data

#### Chapter two - Educational System and Educational Attainment in Jordan:

This chapter is devoted to review the organisation and structure of the educational system in Jordan and its development over the past. Then we will examine the educational attainment of Jordan's population and labour force and its improvement.

Part II - Total Recorded Educational Expenditures by level of Education: This part comprises of three chapters.

#### Chapter three - Educational Expenditures in General (All Levels of Education):

This chapter is devoted to find out the proportion of national inocme devoted to education in Jordan, the proportion of public, private and UNRWA expenditures to the total recorded educational expenditures, the growth rate of this expenditure in terms of current prices as well as in real terms, and compare the growth rate of expenditure with that of enrollment and then find out the general standard of education in Jordan through observing the changes in enrollment ratios and per pupil expenditure.

#### **Chapter Four - Educational Expenditure at School Education:**

In this chapter the educational expenditures incurred in school education (Basic and Secondary Schools) will be examined. This chapter will deal with issues related to school education such as the quality of education, efficiency indicators (overage ratios, promotion ratios, dropout ratios, repetition rations etc).

# Chapter five - Higher Education Expenditure:

This chapter deals with the expenditures incurred in higher educational institutions (Public Universities and Community Colleges)

## Part III - Educational Expenditures by Type of Management:

This part consists of one chapter.

#### Chapter Six - Educational Expenditures by Type of Management:

This chapter is divided into different sections. Studying the educational expenditures incurred in various institutions such as MoE, Public universities, Other government authorities, Private Schools and UNRWA.

This chapter examine issues such as per pupil expenditures, per school expenditures and number of students per school under different types of management and compare them with each other, to get an idea of the state of education in these institutions.

# Part VI - Policy Implications and Summary and Conclusion:

This part consist of two chapters.

#### **Chapter Seven - Policy Implications**

This chapter is devoted to examine the educational policy in Jordan and its implications and achievements and its relation to the output of the educational system in Jordan.

#### Chapter Eight - Summary and Conclusion

This chapter gives the main findings of the study, on the basis of these findings some broad conclusion are drawn regarding the financing of education in Jordan. Some suggestions related to the topic to be also indicated.

#### REFERENCES

- 1. Abu Jaber Kamal (Ed.) Major issues in Jordan Development (Amman- Jordan ) The Queen Alia Social Welfare Fund, 1983.
- 2. Alhabeeb M J, Education and Economics development, Ministry of Information and Culture, Govt. of Iraq Bhagdad, 1981 (Arabic).
- 3. Anderson C.A, Social Selection in Education and Economic Development, Washington DC, World Bank, Educational Department, 1983.
- 4. Bright Singh D, 'Economic of Development' with special reference to India, Asia Publishing House, Bombay, 1968.
- 5. Champion Ward F (Ed.) 'Education and Development Reconsideration' The Bellagio Conference, Preager Publishers New York, 1974.
- 6. Clark H.F, Cost and Quality in Public Educational, New York: Syracuse University Press, 1963.
- 7. Coombs P H and Jaques Hallak, 'Managing Educational Costs', Oxford University Press, New York, 1972.
- 8. D'Souza Austin A, The Human Factor in Education, Orient Longmans, Bombay, 1969.
- 9. Dension E.F, The Sources of Economic Growth in the United States of America and the alternatives before US committee for Economic Development, New York, 1962.
- Dougherty C.R.S, The Optimal Allocation of Investment in Education, In studies in development planning. - Ed H.B Chemistry, Cambridge Mass, Harvard University Press, 1972.
- 11 Easterlin R, Why isn't the whole world developed? Journal of Economics History 41, March, 1981, 1-19.
- 12. Educational Finance in Jordan: Final Report, Series No. 32, Dec, 1993. NCERD, Jordan.
- 13. Eicher J.C. Educational Costing and Financing in Developing Countries: Focus on Sub-Sahara Africa, World Bank Staff Working Paper No.655, Washington DC, 1984.
- 14. Emmanual Jimenez, The Public Subsidization of Education and Health in developing countries, An review of equity and efficiency.
- 15. Ernesto Schiefelbein, Educational Financing in developing countries, Research findings and contemporary issues, International Development Research Centre, Ottawa, Canada, 1983.

- 16. Frederick Harbiso and Charles A. Myers, Education Manpower and Economic Development, Mc Craw Hill Series in International Development, 1964.
- 17. Psacharopoulus & W. Loxley, Diversified Secondary Education and Development: Evidence from Colombia and Tanzania, Baltimore, Md. Baltimore, Md. Johns Hopkins University Press.
- 18. Psacharopoulus, Returns to Educaton, An Updated international Comparison, Comparative Education, March, 1981.
- 19. George P.P, Economic of Higher Education in Tamil Naidu State, India.
- 20. George Psacharpoulus, M. Woodhall, Education for Development, An Analysis of Investment choices, Oxford University Press, 1985
- 21. George Psacharpoulus, Maureen Woodhall, Education for Development, an Analysis of investment choices published for the World Bank, Oxford University Press, 1985.
- 22. George Psacharpoulus, Return to Education An International Comparison, New York, Elsevier Publishing Company, 1973
- 23 Hallak J, Cost Productivity and Efficiency of Educational System, Paris: International Institute for Educational Planning.
- 24. Hough J.R, Education and National Economy, Cream Helm London, 1987.
- 25. Hultin, Mats, The Costs of More and Better Education in developing countries, World Bank Staff Working Paper No. 216, Washington DC, 1975.
- 26. Mill, The Principles of Political Economy, London, 1867, Book II, Chapter XIII.
- 27. Jallade, Jean-Pierre, The Financing of Education. An Examination of Basic Issues, World Bank Staff Working Paper No. 157, Washington DC, 1973.
- 28. Jamison, Dean T.. and Lawrence J Lau, Farmer Education and Farms Efficiency, Baltimore, Md. Johns Hopkins University Press, 1982.
- 29. John Vaizay, The Control of Education, Allen and Unwin London, 1958.
- 30. John Vaizay, The Economics of Education, Faber and Faber, 1962.
- 31. Lee Kiong Hock, Universal Primary Education An African Dilemma, Washington DC, World Bank Education Department.

- 32. Lester Thorow, Investment in Human Capital, Wadsworth Publishing Company Inc., California, 1970.
- 33. Lyon Ilon and Hishma Al-dajah (NCERD), Education and Training in Jordan: A Descriptive and Financial Survey, NCERD Publications Series No. 30, Dec, 1993.
- 34. Majed Bader, Anwar Khasawneh and Malawi, Private Expenditure in Education at the MoE Schools in 1991-92, MoE, Govt. of Jordan, 1994 (Arabic).
- 35. Majed Bader, Anwar Khasawneh and Malawi, Public Cost per pupil in MoE schools in 1992-93, MoE, Govt. of Jordan, 1994 (Arabic).
- 36. Majed Bader, Azat Jaradat and Others, Financing of Pre-Higher Education, Problems and Suggested Solutions MoE, Govt, of Jordan, 1994 (Arabic).
- 37. Mark Blaug, (Ed.) Economics of Education (1) Selected Reading, Penguin Books, 1968.
- 38. Mark Blaug, An Introduction to Economics of Education, Allen Lane, The Penguin Press, London, 1970.
- 39. Maureen Woodhall, Economic Aspects of Education a Review of Research in Britain, National Foundation for educational research in England and Wales, The NEER Publishing Company Ltd 1972.
- 40. Mazur M.P., Growth and Development in Jordan, groom Helm Ltd, London, 1979.
- 41. Meerman, Jacob, Paying for Human Development in Implementing programmes in Human development ed. Peter T.Knight, World Bank Staff Working Paper No. 403, Washington DC, 1980.
- 42. Morghet E, The Economics and Financing of Education, A System approach prentice-Hall.
- 43. Moser C.A and Kalton G, Survey methods in social investigation, Published by Heinemenn Educational Books Ltd London, 1976.
- 44. Natarajan, Introduction to Economics of Education, Sterling Publishers Private Ltd, 1990
- 45. National Centre of Educational Research and Development (NCERD), Lynn Ilon, Educational Finance in Jordan: Final Report, Series No. 32, Dec, 1993.
- 46. NCERD, Bibliography of Research and Studies in Basic Education in Jordan, 1970 -1990, NCERD, 1991.

- 47. NCERD, Studies and Research on the Basic Education in Jordan 1970-90. Part II 1991. Yarmouk University, Jordan (Arabic).
- 48. Panchmukhi P.R. (Ed.) Economics of Educational Finance, Himalaya Publishing House, Bombay, 1989.
- 49. Paul Jordan, Hanna, Conventional and Unconventional Education in Newly developing countries, Syracuse University, school of Education, 1962.
- 50. Roe L Johns, Kern Alexander and K.F. Jordan, Financing Education, Fiscal and legal alternatives, Charles E. Merrill Publishing Company, A.Bell and Howell Company, Columbus, Ohio, 1972.
- 51. Schultz, Investment in Human Capital, The American Economics Review, Vol. 51 No. 1, March 1961.
- 52. Schultz, Investment in Education, The Equity Efficiency Quandary, The University of Chicago Press, Chicago, USA, 1972.
- 53. Schultz, The Economic Value of Education, New York, 1963.
- 54. Shah K.R, Outlay on Education and its Financing in India 1950-51 to 1960-61, Unpublished Ph D. thesis, Dept. of Economics, Arts Faculty of M SU. of Baroda, 1968.
- 55. Sheehan G, The Economics of Education, George Allen and Unwin London, 1974.
- 56 Smith Adam, Wealth of Nations 1776, published by Ravelon House Inc, 1937, book II.
- 57. Smith G.S. The Cost of further Education, Pangamon Press, Oxford University 1970.
- 58. Wheeler D, Human Resource Development and Economic Growth in Developing Countries, World Bank Staff Working Paper No. 407, Washington DC, 1980.
- 59. Wiseman Public Financing in Education in Economics of Education: Research and Studies edited by G. Psacharpoulus W.B. Washington, 1987.
- 60. Zymelman Manuel, Education Expenditures in the 1970's, World Bank, Education Department, Washington DC, 1982.