Chapter 1

Significance of Investment in Education and Its Relationship with Earning Capacity of the People
This chapter deals with literature on the significance of investment in education and its impact on income and employment in general. Theoretical and empirical literature in India and other countries that have endeavoured to discuss and estimate the true effect of education and training on individual earnings and human development is discussed. Such literatures emphasize the role education in improving the quality of life and human wellbeing. Investment in education contributes to the growth of output and income, and accelerates the rate at which society’s stock of knowledge builds up. Historical, theoretical and empirical literature effectively point to the existence of a direct and indisputable relationship between educational attainment and the earning capacity of people. Investment in education thus assumes its importance.

This chapter is divided into three sections. The first section deals with the rationale of public financing of education. In this section, we examine the critical role played by education in stimulating economic growth and improving the incomes and the productivity of people. In the second section, we discuss the influence public investments in education has on income distribution, employment and earnings capacity. In this section, we examine the significance education that individuals receive have on their earnings and the quality of their employment. The positive effects which additional skills training and post-school coaching has on the income earning capacity is also briefly discussed. The influence of various other factors like family background and quality of education have eventually on one’s employment and income is also analysed in this section. In the third section, we deal with schooling and earnings. We discuss the significance of education and post-school training on earnings. We also discuss role of education as an important variable in socio-economic inequality. This is then followed by a brief concluding remark.
1.1. Public Financing of Education: The Rationale

Economists have always recognized the economic significance of investing in education. Traditionally, they have believed in the unique potential that education and human development have in playing a vital role in improving the incomes and the productivity of people. Classical economists like Adam Smith (1723-1790), Alfred Marshal (1842-1924) and John Stuart Mill (1808-1873), among others, viewed education as a form of ‘national investment’. Realizing the importance of the quality of human resources on the economy, in his introduction to the ‘Wealth of Nations’, Adam Smith (1776) stated that the proportion between the annual produce of a nation and the number of people who are to consume that produce depends on “the skill, dexterity and judgement with which its labour is generally applied.” He viewed the acquired and useful abilities of all the inhabitants of the society as a form of capital and remarked that, “a man educated at the expense of much labour and time… may be compared to expensive machines”.

Other Classical economists too, had realized the importance of education and its ability to develop not only ‘aptitude’ but also ‘attitude’ conducive to economic progress (Bharadwaj and Balachandar, 1994). They shared the view that the expenditure incurred on education and skills training could be regarded as a form of investment that promised a future benefit, not only to the individual, but to the whole society as well. Alfred Marshal (1890) in his book ‘Principles of Economics’ emphasized the importance of education by claiming that “the most valuable of all capital is that invested in human beings.” Investment in education and human development, therefore, came to be seen as a form of national investment, capable of boosting economic and social development.
The importance of investing in education and human resource development was given due emphasis, along these lines, from very early on in the history of economic thought and practice. Along with its intrinsic value to the individual and the society, the many externalities such as its contribution to economic growth, distribution of wealth, poverty eradication, employment generation, diffusion and transmission of knowledge, and social mobility that are associated with education, qualify it to be treated as a ‘public good’ that has the potential to benefit both the individual and the society. As such, necessary government interventions and adequate public investments in all areas of educational development becomes necessary to pave the way for bringing the disadvantaged, deprived and fringe groups to reap the benefits of education and come to the mainstream, and make valuable contributions to the society.

Public investment in education is also important as it has a great deal of influence on several key social and economic indicators and because of its potential to create synergy with investments in other sectors such as income distribution, employment, earnings, health and nutrition. The large social returns and the multiplier effects that result from investments in education, conventionally acknowledged to be more widespread and far-reaching than investments in other resources, provide the rationale for public investment in education. However, the most compelling contention in favour of public investment in education is the role it plays in providing the poor and the marginalized with opportunities, which in its absence would be inaccessible to them. All these provide legitimacy and validity to public financing of education. Rational and adequate public investments in education and human development sets in motion the significant process of increasing the knowledge, the skills, and the capacities of the people which leads to their economic, social, cultural and political growth (Harbison and Myers, 1968).
With the role of education in today's information-driven economy becoming increasingly significant and clear, there are concerted efforts by governments everywhere to give due importance to the development of human resources. The primary aim of educational policy and practices in many developing nations is to bring everyone to the mainstream, especially the weaker sections and those from disadvantaged backgrounds, to enable them to reap the fruits of development. Such initiatives call for enormous public funding, especially in the case of less developed countries.

As public financing of education has great implications, it is essential to ensure that such investments are based on sound principles that ensure access, equity, relevance and quality of education at all levels. The significance of greater equality in the pattern of sector wise expenditure, and pragmatic financial policies with greater concern for the needs of the individual regions to achieve equality of opportunities in education is highlighted in an investigation carried out by National Institute of Educational Planning and Administration (NIEPA) in 1986, focusing on the problems arising out of inequalities in education. Investing adequate resources, therefore, in a manner that takes care of the priority areas, is an important concern for any government.

Several studies have analysed the importance and the efficacy of public investment in education. Examining panel data from 118 developing countries during the 1971–2000 period, Baldacci et al. (2008) found strong evidences to suggest that increased public expenditure on education directly result in increased educational outcomes. They also confirmed that these positive effects are influenced by good governance and right policy initiatives. Stressing the importance of public spending on education, Mehrotra (1998) maintains that educational outcome is always associated with public funding of
education, wherein a relatively higher share is spent on primary education. Tilak (1998) also found that there is a close correlation between government expenditure on education and the attendance rate, while Gallagher (1993) maintains that public spending on education positively affect the educational outcomes, its quality as well as its efficiency.

In an empirical analysis of fifteen states in India, Kaur and Misra (2003) concluded that the impact of public expenditure on primary, intermediate, and secondary school enrolment rates, controlling for variables such as the level of economic development and quantity of physical infrastructure in a state, has been generally productive, especially in poorer states. However, based on a study of 37 African countries during 1984 to 1995 period, Gupta and Verhoeven (2001) came to the conclusion that the effectiveness of service delivery is more important than the quantum of public spending. Examining the poor performance of the education sector in Pakistan, Nasir and Nazli (1996) found the extremely low levels of public investment (less than 2 percent of gross national product before 1984-85) and the skewed allocation of government funds that benefited the upper income class as the major causes. The type, distribution and the quantum of investment in education and human development has much significance and will ultimately decide the quantity, the quality and the spread of education. As Tilak (1993) observed, ‘adequacy, built-in flexibility, and autonomy constitute the basic principles of financial soundness of the education systems’.

Investment in education is also important as it provides an essential tool to liberate individuals and societies from unemployment and poverty. As such it is increasingly recognized as ‘the primary vehicle by which economically and socially marginalized adults and children can raise themselves out of poverty and obtain the means to

Public investment in education stands out as an important tool in ensuring sustained economic growth and social development, promoting equity, social mobility and improved worker productivity. Global evidences effectively prove that adequate investments in education can become an efficient means to reduce inequality in income distribution and can elicit continuous growth in the economy (Lucas, 1988; Romer, 1990). Investments in education therefore, is seen as the best and sure way to achieve faster growth, more jobs, more earnings, better health, greater productivity and a more equitable prosperity. As William Schweke, (2004) says,

“If our goal is an economic climate that provides good jobs, decent living standards, entrepreneurial workers and competitive edge over other countries, then investment in education is the single most important thing we can do, as education must be thought of in terms of productivity, innovation and the growing of wealth.”

Roberts (2003) observed that expenditure levels alone bear no strong and unambiguous relationship with school enrolment and completion rates. According to him increasing public investment alone does not seem to be good enough to improve the quantity and quality of primary education. However, there is greater unanimity today in accepting the efficacy of adequate and judicious public funding of education and its effective delivery, especially at primary level, as it has a direct link with educational outcomes. Although investment in human resources is known to promote economic growth, in many ways it is the country's economic capacity that ultimately determines its ability to
invest in its human resources. In this sense, therefore, “a good educational system may be the flower of economic development, but it is also the seed” (United Nations, 1963).

In India, the development planners had from the very beginning stressed the fact that any rapid progress in economic development in the country is possible only if the crucial question of literacy and basic education of the masses is actualized. Accordingly, a three pronged approach was, therefore, adopted in formal and non-formal education that included universalization of elementary education, adult literacy, and women’s education and equality. It was expected that education as a tested and proven tool in poverty eradication and employment generation, would provide the needed impetus to the social transformation, economic development and the realization of an egalitarian society.

Investment in education continues to be assigned a key role in India in the economic and social development of the country and is treated as an important policy area in ensuring inclusive growth, by both the central and the state governments. This is evident from the emphasis the ambitious five-year plans accorded to education. The first five-year plan (1951-56), for example, emphasized the universalization of primary education and the strengthening of secondary education. It allocated 7.86 percent of its total outlays for education, demonstrating the importance it attached to human development. The emphasis given to investment in education continued through successive five-year plans. The sixth five-year plan (1980-85), proposed a ten year strategy to realize universalization of elementary education, while the seventh five-year plan (1985-1990), stressed the importance of human resource development and said that investment in education has ‘necessarily to be assigned a key role in any development
strategy, particularly in a country like ours with a large population’ (Government of India, 1984).

The tenth plan (2002-07) laid emphasis on universalization of elementary education, guided by five parameters of universal access, universal enrolment, universal retention, universal achievement, and equity. Prime Minister, Dr. Manmohan Singh, termed the ongoing eleventh five-Year Plan (2007-12), as the ‘National Education Plan’ which is designed to enable “…every section of our society to get access to education. Every child belonging to a family of scheduled caste, scheduled tribe and other backward caste and all minorities, every single child, boy or girl, must have access to modern education” (Independence Day Speech, 2010).

The Constitution of India acknowledges the rights of all to education (Article - 41). Article 45 of the Directive Principles of the State Policy, provides for compulsory and free education to children until they complete the age of 14. It directed the state to provide, “within a period of ten years from the commencement of this Constitution, for free and compulsory education for all children until they complete the age of fourteen years.” Article 21 (A) 2 provides that

"the state shall provide free and compulsory education to all children of the age of six to fourteen years in such manner as the state may, by law, determine”.

The 86th amendment of the Constitution in 2002 recognised education as a fundamental right, providing for the assured early childhood care for children below the age of six, by the government. The Right to Education (RTE) Act 2009 now guarantees children free and compulsory education from the age of 6 to 14 years of age. All these Constitutional provisions make it obligatory for the government to be involved in the
provision of education to the masses and undertake adequate public investment in education.

With over 13.5 crore pupils in primary level education alone, India has the largest student population in the world. In the case of Meghalaya, as per 2001 Census, 41.6 percent of the state’s population was below 14 years of age. Educating such a large student population is indeed an enormous and expensive task that challenges the policy makers and the governments. The quantum of resources required and the large investment that are required to provide even basic education certainly bring much pressure on governments, both at the centre as well as at the state level, as education is the joint responsibility of the central and state governments.

While there has been a substantial growth in public spending on education, in terms of percentage of the total government spending, the share of education has more or less remained the same. Mobilizing adequate funds and channelizing them effectively, to those sectors and priority areas such as the hitherto forgotten rural areas are all important. The ‘education cess’ levied since 2004 is an important step and a good example of mobilizing adequate funds for education and involving every citizen in the task of human resource development.

1.2. Earning Capacity and Employment

Conventional human capital theory viewed investment in education and training as the major sources of human capital accumulation, growth in employment, and earning capacity. It emphasized on the existence of a strong, empirically verifiable, positive relationship, between the wages and salaries people receive at work and the level and
quality of education and training they acquired. Numerous studies in the field and the many historical evidences available support these assertions. They all reveal that persons with higher levels of schooling and educational attainment generally tend to have higher levels of individual productivity and earnings. Education, thus, assumes the role of an important determinant of earnings. Extensive evidences available indicate that factors like educational infrastructure, curriculum, the learning-teaching atmosphere, motivational level, involvement and efficiency of the teachers, occupation, income and educational attainment of parents are all factors that have powerful influence on the quality of education that students receive which in turn significantly affect their employment prospects and individual earnings.

The amount of education individuals receive not only affect their earnings, but the quality of their employment as well. Employment prospects of individuals are generally related to the level and the quality of education they receive. Empirical studies in the field have proved that education and training has a decisive role in deciding on the employment potential and the wages of individuals which in turn lead to higher household incomes. In his book, ‘Studies in Human Capital,’ Jacob Mincer (1993) contented that educated workers have three advantages relative to less-educated workers: higher wages, greater employment stability, and greater upward mobility in income. The ability of education and training to enable people to acquire knowledge, attitude, and skills that have the potential to enhance their employability makes education an effective tool in resolving employment problems. According to Malntosh (2004), even low level of vocational qualification has a dramatic effect on the probability of employment. Jacob Mincer (1991) attributed the negative relationship between education and unemployment to the competence of the educated for a more
able and efficient job search and the increased job-specific qualifications that give a
clear advantage to the educated in job market.

In another important study based on data collected from 30,000 rural households in 245
randomly selected villages located in Tumkur district of Karnataka, Raza, Ramchandran
and Manvikar (1986), too found that education and training not only having a
substantial and positive role in employment and earning, but also in the socioeconomic
transformation of the households and the country, especially in areas such as
improvement in the status of women and their empowerment, health and hygiene, and
in the strengthening of democratic institutions. This relationship between an
individual’s education, employment prospects and life time earnings naturally call for
equality of opportunity in education for all. Avoiding regional, linguistic and ethnic
disparities is critical to promoting the most broadly shared, strongest economic growth.
The real challenge before the governments everywhere is to ensure sufficient public
funding and the creation of necessary conditions for equitable and just development and
make quality education within the reach of everyone across the country - rich and poor,
urban and rural, male and female. Such an inclusive approach alone can help everyone
to share the benefits of education and maximise their employment prospects and
earnings.

Generally, higher levels of schooling and educational attainment results in higher levels
of individual productivity and earnings. Better educated persons tend to have higher
wages and higher income earning capacity compared to less educated ones. This
follows the assumption that with more education, people become more capable of
absorbing new information, acquiring new skills, and in familiarizing themselves with
new technologies. The increased earnings by the more educated is therefore seen as a
reward for better skills, responsibility and higher job performance all of which are acquired and cultivated through education. Recognizing this, the World Bank Report (1980) emphatically contended that ‘more schooling led to higher earnings’ and maintained that there are conclusive evidences to prove the potency of education to promote economic growth, and thus put development within everyone’s reach. Additional years of schooling, quite naturally, result in ‘additional average return’ (Psacharopoulos and Patrinos, 2002), and ‘has a positive and significant effect on the subsequent rate of growth’ (Robert Barro, 2002).

Ann and Lichtenberg (1991) maintain that a strong, positive and empirically verifiable relationship can be readily established, between the wages people receive at work and the level of education they have. According to them, this relation between education and earnings is however influenced by a number dynamic factors such as the stages of development of the economy, the pattern of supply and demand for work force of different occupational and educational categories, strong social infrastructures, the political climate, the quality of governance and the policies adopted by the government.

Today, educational attainment, skills development, and acquisition of knowledge have all become crucial determinants of individual earnings and a nation’s productivity. Impact of varied levels of educational attainment on earnings has been tested econometrically through various studies spread across different conditions and countries. The results that emerge from these studies almost always continue to be strong and positive. They indicate that the incomes individuals earn depend to a very large extent on the level of their education. Higher levels of education generally empowers a person to demand and get higher starting salary and to have a much steeper rise in earnings compared with those having lower levels of education and training. In a
Report titled, ‘Education and Poverty: A Gender Analysis’ prepared for the Gender Equality Unit, Swedish International Development Cooperation Agency, Zoë Oxaal (1997) noted that the earnings profile of the more educated normally start at a higher level, and have the tendency to increases more rapidly when compared with the earnings profiles of the less educated. It is confirmed that persons with less education generally have their earnings profile remaining quite the same throughout their lives, while those with higher educational acquisitions have earnings profile that tends to rise. Thus, it is evident that education not only makes people more productive but also enhances their ability to earn at a faster rate than those with less education. The productivity and performance of persons with more years of education is significantly higher than that of workers with less than seven years of education. Another interesting feature to be noted is that the workers with higher educational level enjoyed better promotional possibilities (Pinto 1985).

Comparing the microeconomic data from 42 countries, Psacharopoulos and Patrinos (2002) also found that there are sufficient evidences to suggest that increased educational attainment lead to higher earning and that the average rate of return for an additional year of schooling is about 9.7 percent increase in personal income. In his study titled ‘Cost-benefit Analysis of Higher Education: A Case Study of Orissa’, Debi (1983) found the effect of education on earnings was 23.25 percent for general undergraduates, while the equivalent figures for general graduates and for general postgraduates were 30.43 and 35.69 percent respectively. Likewise, in a work titled, ‘Returns to Education: New Evidence for India, 1983-1999,’ Puja Vasudeva Dutta (2006) found evidence of a widening wage gap between regular workers with graduate and primary education.
1.3. Schooling and Earnings

A one year increase in schooling, according World Bank Report (1991a), can augment wages by more than 10 percent, after allowing for other factors. Examining the role of education, technical training, school quality, literacy and numeracy skills on the earnings of wage earners and salaried persons in Pakistan, Nasir and Naz (2000), confirmed the positive role of education and found that each year of schooling brings approximately 7 percent returns for wage earners. Dutta (2006) who extensively used the Indian National Survey data in his study also had similar findings. His study revealed the fact that the regular workers have the usual inverted ‘U’ shaped returns curve with respect to schooling levels while the casual workers have flat curves.

Similarly, Krueger and Lindahl (2001) in a significant work titled, ‘Education for Growth: Why and for Whom?’ found the microeconomic evidences available strongly supporting the human capital view of the link between school education, earnings, and productivity. They too found the relationship between education level at a given time and the subsequent growth takes an inverted U-shape. According to them, the countries with even the lowest level of education show a positive and statistically significant association between initial level of education and subsequent growth. Increase in education result in increased earning capacity, as both the levels of earnings as well as the probabilities of working are higher. Forensic Economist, Michael L. Brookshire, (2005), shared this observation when he insisted that, ‘the effect of higher educational attainment on both annual earnings levels and on work-life expectancies is quite dramatic’. This is true about higher education beyond school level. In their study, Sianesi and Reenen (2003) too found that there are compelling evidences to prove that
human capital formation through school education and subsequent training increases productivity and bring about additional benefit to the individual and the society.

The degree of income inequality and educational attainment has an inverse relationship between them. This has been proved by several studies such as the ones conducted in Pakistan by Hamdani (1977), Khan and Irfan (1985), Ahmad, et al (1991), and Ashraf and Ashraf (1993a, 1993b, and 1996), proving the point that an equitable and inclusive distribution of education at primary and secondary level can bring about more equitable growth.

Becker and Chiswick (1966) in their work, ‘Education and the Distribution of Earnings’ analysed the data spanning the different regions in the United States to show how income inequality is positively correlated with inequality in schooling and negatively correlated with the average level of schooling. They established that income distribution is related to the population’s average schooling and its dispersion. In another study involving data from nine countries, Chiswick (1971) established that earnings inequality increased with educational inequality. His study found that a higher level of schooling reduced income inequality while inequality in educational attainment increased inequality in income. School education is quite an important variable in socio-economic inequality. Studies by Adelman and Morris (1973), Marin and Psacharopoulos (1974), Psacharopoulos (1977) and Winegarden (1987) also had similar results, while Ram (1989), on the other hand, is of the opinion that the mean schooling and schooling inequality do not have any statistically significant effects on income inequality.
Higher attainment and more equal distribution of school and post-school education can play a significant role in making income distribution more equal. This was clearly established by Gregorio and Lee (1999). Analysing the data set of a broad range of countries for the period between 1960 and 1990, their study proved the fact that education inequality is also determined to a very great extent by income inequality, as economically stable ones have a better possibility of pursuing school as well as college level education while the poorer sections could find education less affordable. Birdsall, Ross, and Sabot (1995) used cross-country regression evidence from East Asia to study how education actually helped in decreasing inequality in East Asia, while at the same time contributing to economic growth. Their findings reiterated the importance of high-quality basic education through proper schooling which they said contributed to growth directly through the production function and labour demand, and indirectly through reduced inequality. Knight and Sabot (1990) in their studies in East Africa point out how rapid expansion in basic and elementary education through schooling help in reducing inequality and help income distribution. According to them speedy expansion of school education under the right conditions can lead to rapid economic growth and less inequality.

Additional skills training and post-school coaching can add quality and thereby definite positive effect on the income earning capacity of people. This positive influence that technical training and quality schooling have on individual earnings, strongly endorse the human capital model where earnings are related to the productivity of workers and productivity depends on the level of training. Peter Orazem (2006) observed that the effect of literacy and numeracy skills while being large and significant, the returns are 15 percent higher for those who have additional skills as compared to those who do not possess any added skills. Analysing 71 data sets from 48 developing countries, he
noticed that only in four cases for men and one case for women, where education failed
to raise earnings. These estimates are consistent with earlier studies like the ones by
Arshaf and Ashraf (1993), Khan and Irfan (1985). Other studies like the ones by
Khandker (1990), and Nasir (1999) in the recent past have also found the effect of post-
school training on earning in many developing countries to be positive and substantial.
School education followed by vocational training improves the capacity to earn a
livelihood. In-service training and skill enhancing technical education contribute
considerably in increasing workers productivity, average earnings and their socio-
economic status. According to Nagia (1979), and Pinto (1985), the productivity and
performance of persons with more years of school education was significantly higher
than that of workers with less than seven years of school education. These studies also
found that workers with higher educational level also tend to enjoy better promotional
possibilities.

Jeffrey Magee (1993) sharing the same view is of the opinion that individuals who are
engaged in on-going training and learning initiatives after schooling earned more than
their peers, which is in excess of 25 percent. Likewise, Edward Dennison (1962) in his
being responsible for 23 percent of the growth of the total real national income and 42
percent of the growth of real national income per person employed. Studies in India, in
two different contexts by Nagia (1979), and Pinto (1985) show how the technical
training and workers' education after passing higher secondary school course are quite
useful in increasing workers' productivity and their socio-economic status. It is
important to note that along with the quantity, the quality of education received too has
significant bearing on the quality of a person’s employment and earnings. Ignoring
quality differences very significantly misses the true importance of education in the case of individual earnings and economic growth. What is true of an individual is true in the case of societies and nations as well. The effect of the educational quality on earnings and economic growth, however, is larger in developing countries than in developed countries.

Empirical studies undertaken over the past years have demonstrated that consideration of the quality of education, measured by the cognitive skills learned dramatically alter the assessment of the role of education in the process of income generation and economic development. Recent studies with advances in data collection have moved beyond the quantitatively biased measure of traditional school education and use much more acceptable measure giving due importance to cognitive achievements. Given this background, the World Bank’s education policy papers (1990 and 1999) for over a decade have consistently emphasized on the importance of quality of school education, insisting that learning outcomes are crucial in elementary education. With the data used from the 1970-71 First International Science Study involving 17 participating countries, it was found that quantitative measures of education had no significant effect on earnings and growth when qualitative measures were introduced into the calculation of the effect of education on income earning capacity. In the same study, using the data from the International Student Achievement Tests in 1991, statistically and economically significant positive effect of the quality of school and post school education on economic growth during the reasonably long period between 1960 and 1990 was found. Hanushek and Wößmann (2007), in their World Bank Policy Research Working Paper titled ‘The Role of School Improvement in Economic Development’ confirmed this as they found credible evidences to prove that educational quality has strong impact on individual earnings and on economic growth and that the quality of
schooling was more important than the number of years of schooling. According to Sabot (1992), Behrman, et al. (1994), the quality of education has positive and substantial impact on cognitive achievements and hence on post-school productivity, measured by earnings. They also found graduates of high quality school having higher earnings than those who attend a low quality school.

Robert Barro (2000) found that the quality of school education has a stronger relationship to growth than the duration of school participation; meaning that ‘the amount learned is more important than the number of years of schooling’. Barbara Sianesi and John Van Reenen, (2002), too in their studies on returns to education, found that ‘the type, quality and efficiency of education all matter for growth’, corroborating the view that various factors that affect the quality of education do matter in the final analysis of the influence of education on earning and growth. Using a set of international tests scores, Robert Barro J. (2001) too arrived at similar conclusions. He found that in considering both the quantity and the quality of school education in matters relating to economic growth, quality is of much more importance than the mere quality as measured in terms of number of years study. A recent study by Nasir (1999) in an article titled, ‘Do Private Schools Make Workers More Productive’ claims that considerable higher earnings for the private school graduates is noticed, given the fact that graduates from private schools are recipients of better quality education as compared to government controlled one. Maintaining that pure quantity of education alone is only a very crude measure of skill differences, since ‘school systems vary widely across countries in terms of resources, organization, duration and the preparation of entering students’, Hanushek and Kim (1995), and Hanushek and Kimko (2000) tried to adjust the differences in schooling quality by using direct measures of cognitive skills of individuals, often interpreted as a measure of schooling outcomes. Using
International Student Achievement Tests (ISATs) in mathematics and science to measure the quality of a country’s educational system they related it to per capita income growth to find a strong positive link between educational quality and a country’s national income growth rate. All these studies establish the important fact that quantity of schooling has a strong positive effect even though it gets substantially reduced once the question of quality is considered.

Several factors affecting family background, like education and income of parents and school factors such as pupil-teacher ratios, public educational spending per pupil, salaries of school teachers, repetition and dropout rates, and length of school year that contribute to quality differences have direct and positive relation with student performance. Studies have consistently come with the findings that graduates of high quality schools generally have higher earnings when compared with those who attended a low quality schools. Lee and Barro (2000) shared this view while Harbison and Hanushek (1992) found the same thing in a study related to Brazil, a country plagued by high rates of grade repetition and ultimate school dropouts. The latter had observed that higher cognitive skill in primary school is a very significant factor that leads to lower repetition rates. In another study, undertaken in Egyptian primary schools by Hanushek, Lavy, and Hitomi (2006), it was found that lower quality schools, measured by lower value-added to cognitive achievement, led to higher dropout rates. Using the data for 772 boys and girls in different courses in Allahabad, a study by Kumar (1980) found several factors like the socio-economic status of the family, educational level of the father and occupational status parents play important role in the educational outcome of individuals and eventually their earning capacity and income. Studies in UK by Balhdn and Gregg (2004) and Chevalier et al. (2005) provide evidence of a consistent impact of family income on educational attainment. They also found that permanent
income is an important determinant of educational attainment. Similarly, it was found that the land owning, economically better-off had better access to education than landless ones and that the occupational pattern of the parents and family income also influenced the demand for education of their children in the rural areas K. C. Nautiyal (1985), Madi (1982).

Poverty, according to Usha Jayachandran (2002) is the biggest barrier to education. It has a negative and significant effect on school attendance rates. Her study on ‘Socio-Economic Determinants of School Attendance in India’, also found that poor regions have low levels of school attendance and adult literacy rates. In addition to these, household size and schooling accessibility are also found as factors that affect school attendance. In the case of rural incomes too, education has an important influence. Jamison and Leslie (1990) have found education to be having positive and significant correlation with rural productivity, while Nautiyal (1985), found a distinct and positive relationship between education and agricultural development, and earnings and educational attainments, irrespective of caste and sex. In Mexico, Singh and Santiago (1997), found that rural incomes were positively affected by both the education of the farmer and of his family which in turn affected the educational attainment of their children. Studies of rural areas in Bolivia, the Dominican Republic, Guatemala and Paraguay have shown a positive and significant correlation with education and rural productivity in two of the four countries, proving a strong link between education and prosperity (Jamison and Leslie, 1990). In the Asian context, analysing the association between illiteracy and poverty Tilak (1994), found that literacy rate is lowest in countries that have higher rate of poverty. His study also proved the inverse relationship that exists between poverty and education.
The strong link between education and earnings, especially seen on the basis of the ability of education to augment productivity, gave credibility to the belief that primary education could play a powerful role in poverty alleviation. Tilak (1994) reiterates this when he insists that a clear correlation between poverty and illiteracy in Asia is noticeable. According to him poorer countries are usually associated with lower the literacy rate. He found that almost 99 percent of the poor in Thailand have no education or less than middle secondary education, and that nearly all of the poor in Pakistan are illiterate. Similarly, he found education and incidence of poverty are inversely related in Malaysia, with a large drop in poverty occurring between primary and secondary school graduates. The same was also found to be true in India where poverty varied inversely with education, training, and household income. Such is the importance of education and human resource development that in a Report prepared for the Copenhagen Consensus 2008, Peter F. Orazem (2006) pointed out that only “few empirical relationships have been more frequently investigated than the relationship between years of schooling and the resultant increase in one’s earnings”. In other words, human resource development is the process that enables people to make things happen; as it deals with competency development and the creation of conditions to apply these competencies in everyday life (Rao, 1996). This process brings about technological advancement, specialization, modernization and change.

In economic terms, human resource development is expected to ensure higher earnings and better living, while in political terms, it provides greater awareness to people and prepares them for better participation in political processes, and from the social and cultural points of view, it enables people to lead fuller and richer lives (Harbison and Myers, 1964). Measuring the effect of education on productivity has always been a tricky area as there are inherent difficulties associated with the quantitative and
qualitative dimensions besides the methodological factors and the quality of statistical data used. These difficulties generally deal with the question of: i) distinguishing between the impact of differences in innate abilities and of schooling, and ii) the differences in school quality and other factors such as the family background, accessibility to education, education background of the parents, and government policies.

**Concluding Remarks**

The relationship among public finance of education, employment prospects and earning capacity is a complex one. Given the existence of such a direct link among these crucial areas, it is important to understand the significance of public investment in education. With its potential to interact with many interdependent social, political, cultural and economic factors, education and schooling years play a very crucial role in stimulating earning capacity. The ability of education to equip individuals and societies with more capabilities and enable them to find suitable employment and improve their productivity and earnings makes investment in education an unavoidable proposition. Ultimately, it is the decisions made in favour of investment in education that determines the earning capacity of the people of Meghalaya and sets the tone for growth in employment, more earnings and eventually their wellbeing. In the next chapter, we further survey additional literature on relation of education with other socio-economic factors and forces.