CHAPTER 9
SUMMARY AND CONCLUSION

Education is a vital catalyst for human resource development. It acts as a principal driving force behind rapid economic development. It exerts a positive impact on labour productivity and technology; augments the quality and inventiveness of labour and pays them high. The increased earnings by educated workers benefit not only the individuals themselves but also the society as a whole. Bowen pointed out that, “the primary purpose of higher education is to change people in desirable ways to have profound effects on the economy, the society and on the course of history”. According to Hicks (1980) “there is a strong correlation between literacy levels and life expectancy and that influences health and hygiene.” Similar study has shown that, youth with low educational accomplishments are the ones most likely to suffer from unemployment while persons with higher educational attainments suffer the least (Majumdar 1996).

Human Resource Planning in India, especially with respect to education has not yet received the real fillip despite being the second largest population in the world. The recommended expenditure equal to 6 per cent of GDP remains elusive even after 45 years of independence. Of the total expenditure the highest priority has accorded always to elementary education and the least to higher education. As per recent statistics India has about 300 Universities, equivalent institution and over 8000 colleges in 2002. But students far outnumber the seats available. Barely 6 per cent of those in the 18–23 age group have access to higher education. According to the UNESCO
*World Education Report for 2000*, only 6.9 per cent of youth in the age group 17-23 are enrolled for higher education in India.

Kerala is ahead of other states in respect of attainment of universal literacy, which crossed even 91 per cent in 2001. Like the national rates, expenditure on University and higher education used to receive last priority in the State, and the proportion is less than 15 per cent on an average during 1995−96 to 2002-2003. The number of Arts and Science Colleges, as per recent records is 286 (38 Govt., 148 Pvt. Aided and 100 unaided) under the four affiliating Universities. Total enrollment of students at the University level stood at 3.43 lakhs in 1997 and the size in 2001−02 declined to 1.60 lakhs (after de-linking Pre-Degree) and 1.59 lakhs in 2002−03.

Despite these, human resource planning with respect to education especially higher education has not received the required emphasis so far in the State. It is in this context the present study is carried out with the objectives, viz; (1) to give an account of the investment and institutional or structural framework of higher education in Kerala; (2) to analyze the higher education market and the strength and weaknesses of supply−demand conditions in Kerala; (3) to compare the cost and benefits of higher education in Kerala; (4) to examine impact of recent policy change in higher education; (5) to suggest the need for expanding higher education market to solve the grave problem of unemployment on the basis of a systematic manpower planning; (6) to analyze higher education and its association with income and employment.

For analytical purposes the study has formulated a few hypotheses, such as (1) supply conditions of higher education is inadequate with respect to its growing demand; (2) both Social and Private costs of higher education
exceed its corresponding (social and private) benefits in Kerala; (3) Except on payment of price (fee) of education and distribution of student aid, both aided/govt and self-financing students are in equal status; (4) Education-Employment mismatch is the cause of growing educated unemployment in the State; (5) higher personal income is positively related to higher levels of education; (6) there is a close association between education and employment (and higher occupation statuses) in the State.

An investigation into the strength and weaknesses of public funding and institutional arrangements along with demand and supply conditions in the higher education market of the State is attempted in chapters 3 and 4. Often it is alleged that, the public spending in higher education in the state is as high as 90 per cent and the increasing gap between receipts and expenditure of the Universities are mainly due to fall in internal receipts. But the present study reveals the following. (1) State’s public expenditure on Education was only 3.04 per cent of SDP in the last fiscal too i.e., 50 per cent short of the recommended rate (Kothari); (2) of the total expenditure on education, University and higher education received only less than 15 per cent; (3) out of the total expenditure on University and higher education, nearly 98 per cent is spend on non-plan expenditure as in the case of other stages of education in the State; (4) In the case of four affiliating universities in the State, salary of the staff and expenditure for the conduct of examinations, constituted more than 66 per cent of the expenditure; (5) The internal receipts of the universities have increased over the period 2000-01 to 2002-03, leaving only 70 per cent to external (public) funding; (6) although internal receipts have increased, the expenditure–receipt gap of universities are moving in an alarming rate due to
mounting non-plan expenses. Obviously, the public funding in higher (general) education is inadequate and skewed.

As regards to institutional or structural setting, the study reveals that, (1) it is so huge comprising so many constituent bodies and officials and that phenomenon often creates unnecessary duplication, delay and often escalates govt.’s financial burden, and puts the students in an unhealthy and unfriendly atmosphere; (2) the number of non-teaching staff including University level staff and Govt.’s Higher Education Department staff, is so high so as to bring down the Staff-Student Ratio only to 1:8 or less than that. Obviously, a forward-looking professional/management practice needs to be evolved, which in turn help to utilize the size or number of university-government and college level staff viably or economically, or re-deploy them so as to avoid unnecessary duplication, delay and drain of scarce financial resources.

Like any other commodity or service, education has a market. It is the ‘market for training’. The important components of which are demand (enrollment) and supply (infrastructure). Based on its origin, demand for education may be distinguished mainly as private demand and social demand. The analysis of social demand for higher education in the State is important as Govt. spends almost 70 per cent or above for the education of people at higher levels. One argument on the enrollment in higher education is that, the higher education system in the State has extensive reach. But, a simple comparison of students enrolled at graduate courses of the students enrolled in 1st standard will expose the bare fact that enrollment in higher education in the State is abysmally low, with only less than 12 per cent. It is very low compared to developed countries where higher education enrollment is more than 60-80 per
cent. Similarly, a comparison between enrollments of students in postgraduate (general) courses out of students enrolled in degree (general) courses also shows that the postgraduate enrollment is at the lowest ebb in the State, i.e. hardly 15 per cent, which makes only 0.9 to 1.2 per cent of those enrolled in the 1st Standard in the State.

It is also observed that, the actual dropouts at primary levels itself is 50 -70 over the last decade. Of which 40-50 per cent go out of the stream without even reaching to 10th Standard and the rest fails in their attempt to clear the final exam. If the dropouts have been reduced, the demand for higher education might have been larger than the current rate. For instance, although the 1st Standard enrollment have shown a declining trend, growth rate of persons reaching to 10th Standard and those enroll in graduate and postgraduate courses, etc. are on a rising trend. This means that the decline in the dropout at primary level exert greater influence upon the students’ aspirations for higher levels of education.

In fact demand for higher education is on the increase. The evidence obtained from sample survey also supports this. Of the total persons in the age group below 25 years, 93 per cent are students of various stages. Again, 75 per cent of degree and 48 per cent of postgraduate students have expressed their willingness to continue studies further. Besides, private educational expenses of about 99 per cent of the students are met by their parents, and 72 per cent of degree students and 63 per cent of the PG students are enjoying fee concession, which act as additional advantage to stimulate the demand.

An analysis of the percentage of marks scored by students in their final exam showed that the percentage of marks obtained by 55 per cent of
students at degree level have decreased when they moved from SSLC stage to Higher Secondary stage and almost 10 per cent of them could not make any change in that. Only 29 per cent of them could improve their results. In the case of Postgraduate students, marks have decreased for about 57 per cent and 27 per cent could not make any improvement as they move from SSLC to Higher Secondary and then from Higher Secondary to Degree level. On the whole, it could be seen that students could not maintain their test scores when they moves to higher levels of education, so to say quality deterioration at higher education level.

On the opposite, supply of higher education depends on the available infrastructure including investment and enrollment. Public investment on education in the State is hardly 3 per cent of SDP, and of which higher education used to receive the least priority (less than 20 per cent). It is also seen that, most students (44 per cent) in the arts and science colleges are continuing their education in this stream due to non-availability of alternative institutions offering vocational oriented or non-conventional courses feasible to their financial and physical capabilities. The response of majority of the students (76 per cent of govt. college and 68 per cent of aided college students) is that the facilities existing in their colleges are very poor. In other words, supply condition of higher education is inadequate with respect to its growing demand.

The cost and benefit of education is of crucial importance to educational planners and policy makers, but there are a number of ways of defining and measuring this. Since every government in the world operates under budget constraints, cost scrutinization and benefit analysis are of
primordial importance in educational planning. But, it is rather difficult to distinguish the concepts. The present study, however distinguished the concepts against the standpoint of the theoretical framework laid down in the introductory chapter. It is observed that, (1) private cost of higher education is smaller than social cost; (2) private benefit is larger than social benefit; and (3) both social and private benefits exceed their corresponding costs. Hence the hypotheses that (a) private costs exceed the private benefits of higher education, and (b) social costs exceed social benefit, are rejected.

With regard to the recent policy twist in higher education sector of the State (opening it up for self-financing college) the study reveals that conditions in the State are not yet ripe for such a free market operation, and that puts majority of poor students in disarray. Obviously, a series of criterions (socio-economic and educational) are discussed and compared between aided/govt. and self-financing students, except (1) in the amount of fees charged and (2) in the distribution of student aid, both streams of students are in equal status, as stated in the hypothesis. This warrants an equal treatment of these students with respect to pricing of education. But the recent policy change resulted in treating "equals unequally", and hence is unjust. Therefore, a systematic strategy must be drawn out to implement a differential fee structure (price system) irrespective of the stream the students are undergoing their studies (i.e., aided/govt and self-financing colleges). The burden must be shared between students, managements and govt., at par with costs (private & social), benefits (private & social) and the financial capabilities of students.

One of the arguments on the causes of increasing educated unemployment in Kerala is the expansion of higher education. But the present
study shows that the work seekers as per live register with higher educational qualification (above bachelor degree including professional degree) was only 6.4 per cent of the total in 1985 and that has increased only to 11.6 per cent in 2002. The responses of students (sample survey) of Arts and Science Colleges in the State reveal that, 64.4 per cent of them hold registration in the employment exchange. Information collected from work registrants show that, the problem of unemployment is more perennial among those whose level of education is low. For instance, of the total work-seeker registrants only 5.2 percent are really unemployed and their level of education is below graduation.

Assessment of the size of educated labour is done using (i) the taxonomy of Labour Force Status, (ii) Labour Force Utilization Framework and (iii) job competition theory. It is observed that, 68 per cent of the total real labour force (263 = 180 employed + 83 unemployed), are really absorbed in the economy with jobs of various kinds and it’s earning. The 32 per cent, who remain unemployed, may be termed as excess labour force. And, of the total unemployed persons, 90 per cent are below graduates. Only 3.4 per cent (9 out of 263) constitute higher educated excess labour force – a case of education-employment mismatch causing unemployment. Of the total labour force 68.4 per cent actually find berths in job market, and only 31.6 per cent remain out of job. This indicates the supply-demand mismatch in the labour market. But, a close scrutiny of the figures will expose that, this situation is due to mismatch in education market. For instance, 89 per cent of the total labour force with higher educational qualification find berth, while 11 per cent could not. In contrast, of the total labour force in the category of below graduation only 58 per cent are absorbed in the labour market and the rest
remain unemployed. This is a clear indication to the fact that incidence of unemployment is less among higher educated persons.

Again, of the total unemployed persons having education qualification above graduation, none of them with more than ‘graduate stage education’ remain unemployed showing a short of labour supply with these higher levels of education, against its demand. In other words, there is mismatch of demand and supply of higher educated persons in the job market supporting the hypothesis. On the contrary, results show that, the mismatch is so acute among below graduates by excess supply of these people over its demand in the job market.

Again, higher education is no longer an elitist idea or purely intellectual pursuit, but has become closely linked with ‘bread and butter’ issues in Kerala as in the rest of the world. Thus the relationship between education and employment is significant. Of the total employed persons of below graduates, 41 per cent are working in the clerical cadre, 30 per cent in business and 29 per cent in other unspecified occupation statuses. None of them succeeded in getting any placement in the professional occupation even though some of them are having HSS or equivalent level of education. In contrast, of the total employed persons in the above graduates’ category, 50 per cent of them are able to secure placements in the professional or executive type occupations, 32 per cent in clerical cadre, and only 9 per cent each in business and other unspecified group. Thus it is evident that, higher levels of education have helped people to acquire substantially good placements in their occupation. All these show that there is a close association between levels of education and employment as well as higher status (earning) job.
The earning levels of the employed people also show that, persons with higher education are at a greater advantage to those without higher education. To be more specific, 80 per cent of the below graduates could earn only less than Rs. 2000 per month. On the contrary 87 per cent of people having education above graduation earns more than Rs. 3000/- per month.

The estimated correlation coefficient between earnings of employed persons and years of education is 0.552. This means that both are significantly and positively correlated. Similarly, the correlation coefficient of 0.237 between annual earnings and years of experience also shows that both are significantly and positively correlated. Whereas, years of education and years of experience are inversely related as shown by its coefficient −0.229. It means those cut short their education enters in some kind of jobs and get more years of experience and vice versa.

The estimated correlation coefficient suggest for fitting a linear regression model of the variables to identify the nature of relationships for prediction. Thus, \[ Y = -1.04 + 0.14E + 0.03X \]

The specific nature of relationship between incomes earned to corresponding levels of education of individuals is also estimated treating education as a qualitative variable and introduced dummies \( D_1 \) and \( D_2 \) where, \( D_1 = 1 \) if GR, =0 if below GR; \( D_2 = 1 \) if PG, = 0 if below PG. The estimated coefficients of correlation between earnings and \( D_1 \) (0.49); earnings and \( D_2 \) (0.46); earnings and experience (0.24) are positive, means that education level and experience significantly influences one’s earnings, of which the former two shows high correlation. Similarly, the correlation coefficient between \( D_1 \) and \( D_2 \) (0.54) shows that both are positively related. It means attainment of
graduation or equivalent is a basic requirement for still higher and higher level of education. Whereas, the relationship between experience and $d_1$ (-0.17); experience and $d_2$ (-0.21) are negative and more over, the former coefficient is found higher than the latter means that, as individuals go for higher and higher level (more years) of education, the number of years in job decreases.

The estimated correlation coefficient suggest for fitting a linear regression model to identify the nature of relationships for prediction. According to estimated regression coefficients,

$$ Y = .51 + .47 D_1 + .53 D_2 + .03 X, $$

i.e.,

(1) If the individual is below graduate, then $Y=0.51+0.03X$

(2) If graduate, then $Y=0.51+0.47D_1+0.03X$

(3) If post graduate or above, then $Y=0.51+0.47D_1+0.53D_2+0.03X$

In short, the analysis supports the hypothesis that “higher personal income is positively related to higher levels of education”.

To put in brief, the economic significances of higher education are plenty with respect to Kerala. Here lies the rationale of policy intervention for effective human resource planning in the State, to garner the best out of manpower. Hence a few suggestions are mentioned hereunder to revamp the higher education scenario of the state.
9.1: SUGGESTIONS

1. Enhance public expenditure on education at least to meet the recommended 6 per cent rate of SDP.

2. University and higher education sector should be given top priority in Govt’s education allocation in the coming years.

3. Plan expenditure of the universities and colleges should be raised and the expenditure on non-plan items should be reduced to the minimum.

4. The complexity in the institutional and administrative setting has to be eradicated through re-sizing or de-linking bodies and implementing professional management practices, at least in College–University HED–DCE–DyDCE, network.

5. Dropout at primary stage (through failure or quit) has to be reduced and more facilities to higher education have to be created that are required by the industry/ people.

6. A differential price (fee) strategy must be evolved and implemented both in the aided/govt (to mobilize funds for meeting govt’s financing stringency) and self-financing (to ease the low income groups) sectors.

7. Formulate a realistic definition to identify the real volume of unemployment (educated unemployment) on the basis of a systematic or scientific human resource categorization method.

8. Education policies should be revised to make a proper linkage with education market and labour market.

9. Reap maximum possible benefits (social & private) by building a suitable human resource base and through human resource exports, as it is a best source of foreign exchange.
NOTES

1. See, T. 1.1; T.1.2; Appendix PP 190
2. See, Statistics for Planning, 2001, PP 393
3. Economic Survey 2002-03; and see T. 1.3; 1.4; Appendix PP 190, 191
4. See T. 1.5; Appendix PP 192
5. An Overview on History of Higher Education, See R.1, Appendix PP 233
6. A brief review of Education Commissions, R.2, Appendix PP 237
7. T. 1.6; Appendix PP 192
8. Major Higher Education Landmarks in Kerala, R. 3; Appendix PP 245
9. Statistics for Planning, 2001, PP 393; T. 1.7; Appx. PP 193
10. See notes 9 above.
12. See Chart C.2; C.3; C.4; PP 226-27
13. See T. 1.8; 1.9; 1.10; Appx. PP 193-94
14. It is the several years of education and training that helps to convert people as real labour.
15. Even the traditional jobs of carpenters, barbers, goldsmiths, etc, now open to all those skilled in that, though in different titles say, interior-exterior designers, beauticians, fashion designers, etc.
16. A critical review of definitions of unemployment estimations used in India/ Kerala is given in Appendix R. 4; PP 249
17. Group A, in Chart C.1 PP 225 and See T. 1.11; Appx. PP 195
19. *Ibid, PP 55*


21. *Ibid, notes 12 above*


23. See Chart C.5, Appx. PP 228.

24. Please refer to No. F1 22/97 U1 dtd, 27/7/98 & 6/11/98, Ministry of HRD (Dept. of Education), Govt. of India; GO (MS) No. 66/90 H. Edn. Dtd, 13/3/90; GO (P) No. 171/99 H. Edn. Dtd, 21/12/99; etc, Higher Education Dept. Govt. of Kerala, TVM, to name a few.

25. Tried to fish-out the related Govt. Orders, if any, but failed to get convincing evidence due to frequent amendments on the existing ones.

26. *Ibid, PP 24*

27. See T 3.2, Appx. PP 196.

28. The data employed here are compiled from Economic Review of State Planning Board and Annual Report of the DPI. Of course, the data may contain errors due to the chance of presence of repeating students in certain class or classes, those rejoin after a break, enrollment from outside the State, move out of state, enroll in other courses, etc, and is difficult to take care of.

29. The comparison is made here on the basic assumption that a 1st Standard student normally take minimum 12 years to complete PDC/HSS or Equivalent course and aspire for graduate level courses either in general education or professional education.
30. This is an improved estimate, as it takes into account the annual enrollment rather than the total enrollments used in the previous estimate. *Ibid pages 71-73.*


32. It helps to increase national income, savings, productivity, efficiency, probity and transparency. It reduces population, poverty, inequality, unemployment, cost of governance, cost of maintenance of law and order, cost of protection of health and life. It also helps to promote social welfare and social security, and so on.


34. *Ibid, PP 11*

35. T. 4.1, Appx. PP 197

36. T. 4.2, Appx. PP 199

37. *Ibid, PP 17*

38. See Chart C.6 and C.7, Appx. PP 229

39. Remarkable contributions of thousands of eminent persons in the past must be remembered with much admiration.

40. The terms ‘cost and expenditure’ of education are often synonymously used. For more discussion see, Tilak and Bhatt (1986), Salim (1997)

41. Instead, some others use the terms producer and consumer. (Hallack, 1969)

42. The study here focus attention only on institutions run by govt. and aided private management and not the Self–financing Colleges.

43. *Ibid, PP 85*
44. In the absence of data on the amount spend by private management; the present study considers only the govt.’s expenditure on both streams. (Also see, Salim, 1997, PP 6)

45. Reasonable modification is done on what is in Salim (1997, PP 97-99)

46. The concerned department or agency providing it will meet subsidy differential. Besides, financial aid in the form of scholarship, fellowship or grant, is not a cost. It is the price discount. (For more discussion see, Gordon, 1998)

47. Salim (1997) has made an attempt to study only the cost of higher education in Kerala emphasizing capital cost and private cost. But the benefit side is left undone.


49. To know the Govt. approved categories of students of different communities enjoying fee concession, see Calendar 2003-04, Govt. Arts and Science College, Kozhikkode, PP 37–42.

50. Value addition through reputation, frequent grants or aid by Govt, donation or gifts and other externalities.

51. Ibid, PP 17.

52. There will be slight variation, when one adds the number of students enrolled during the period other than general education in both degree and PG.

53. Except a discussion only on excess teaching staff.

54. Of course, the number of postgraduate students in each college is quite low to that of degree students. But, it is very difficult in this complex structure to find out per student cost, separately for degree and PG
Student. In most colleges, teachers engage both degree classes and service of the non-teaching staff are commonly shared, although with some variation.

55. The individual’s perception prior to the investment is referred to as ex ante, while the ex post can be calculated from the actual or observed benefits.

56. The spillovers in education are those benefit of education that spillover into other political jurisdictions, normally as a result of net out-migration. (Mc Mahon). But in most situations there are little demarcation between externalities and spillovers. The present study uses the term without any distinction.

57. Here, it refer only the general subsidy that full pay student get and not by special category student.


59. T. 7.1, Appx. PP 205.

60. T. 1.9 & 1.10, Appx. PP 194-95.

61. Ibid, notes 58.

62. Ibid, PP 137.

63. For more discussion on this part, see chapter 1, 3 &4.

64. Ibid, PP 137

65. Refer, Job Competition model.

66. In Kerala, the labourers are seemed very rigid, but outside the State, they are so handy, flexible and adaptable to the dynamism of labour, technology and product market. Anyway, it opens up a fresh research area in future.
67. Separate data regarding the contribution of education (or higher education) to SDP is unavailable. Research has to be carried out to estimate the specific contribution of education to SDP, in future one in the form of input-output matrix strategy. See T.8.1, Appx. PP 205.

68. See, T.8.2; Appx. PP 206

69. ‘Brain Drain’ – “if highly educated people emigrate abroad then loses are imposed upon less educated workers as they now have less human capital to work with. These losses will, however, be greater the less easy it is to substitute between physical capital and human capital on the one hand, and between human capital and unskilled on the other. Let us suppose that physical capital and human capital were required in fixed proportions. If all educated people now leave the country then the physical capital stock would be rendered redundant and unless goods and services could be produced with bare hands alone, national output and income would fall to zero.” (Todaro, 1996) But in reality, this is not so today. Demand for labour comes from all over the world. One need not hesitate to export the precious manpower like any other factor. It is a best source of foreign exchange and innumerable other benefits. It is high tie to push aside the age-old concept and fear of ‘brain drain’ in the present technology age, information can be collected from any corner of the world and exported manpower can be immediately substituted or replaced (except in very few cases), especially in manpower surplus economy.

70. Unlike in gulf countries domestic people (labour) carry out most (professional) works in our State. See, T.8.3; T.8.4; T.8.5; Appx. PP 206-07.

71. It is evident by large number of ‘job opportunity’ notification.

REVIEWS

R. 1: An Overview on the History of Higher Education

The history of higher education in the ancient world is part of the growth of the urban cultures and civilization of the Nile River Valley, Mesopotamia, Crete, the river valleys of India and China, and to a lesser degree part of the development of the civilization in Central and South America. Large aggregation of population in these areas led to the abandonment of agriculture as the sole means of living. This differentiation in occupation led to the spread of art and crafts to meet the demands of an increasingly complex pattern of culture, which in turn led to the emergence of a class of learned professionals in a wide variety of fields. The maintenance, transmission and refinement of these specific skills led to the establishment of various schools where knowledge was passed on from one generation to the other. Although institutions of higher education in modern sense were lacking in ancient culture, higher education was definitely present in these civilizations. The intellectual, artistic and technological advancement of the ancient empires would have been impossible without a tradition of higher education.

INDIAN EXPERIENCE

India gave considerable emphasis (though not sufficient) on the educational policy after the attainment of independence in 1947 as in the post independence period. The number of educational institutions\footnote{11} has increased by more than three times from 2.31 lakhs in 1951-52 to more than 8 lakhs in 1990-91. The expansion has taken place at all levels of education namely primary, middle, higher secondary, college, professional institutions and universities. The enrollment in these institutions has gone up enormously from 24 million to more than 157 million, i.e., a rise by more than six times. And the literacy rate in India have gone up to 52.1% as per the 1991 Census report and that to 65.4% according to 2001 Census (males 75.85% and females 54.10%). Similarly the Indian expenditure on education\footnote{12} was $ 910 crores in 1991. Plan expenditure on higher education has also increased rapidly since the first five-year plan. As against the goal of 6% of GDP, the total expenditure on
education in India is currently 3.99 % of GDP (2001 – 02). A high priority has been accorded to this sector in the 10th FYPI with an allocation of Rs. 43825 crores as against Rs. 24908.38 crores made available in the 9th Plan, representing an increase of 76 %.

The urban oriented Indus river valley civilization was the base of Indian higher education. But by 1500 B.C. Aryans invaded and whose presence deeply affected the subsequent nature of Indian education. The ancient Aryans had a well-developed system of higher education and that the institutions, which imparted such education, was comparable to some extent to the colleges and Universities of today. The Aryans divided the society into four distinct classes: Brahmins, Kshathriyas, Vaisyas and Sudras, that eventually led to the casteism in India. Since Brahmins constituted the intellectual and priestly class, education in India was closely tied to them though elementary education was given to other two upper classes. Originally instruction was exclusively oral and took place at home of a learned Brahmin where the student subjected to strict intellectual and moral discipline. In the 7th Century B.C, the Forest Schools where the study of the Vedas was supplemented by an ascetic life challenged the instructional monopoly of the Brahmins. In these schools students lived in the woods with a learned teacher and studied not only the Vedas but also other subjects such as astronomy, etymology and grammar. Both students and teachers led a simple life performing religious ceremonies and some manual work. Celibacy was strictly enforced. When students had completed this preparatory course, higher education including instruction in philosophy, logic, grammar, law and possibly the Sciences was available to those Brahmins who had mastered the basic text of the Hindu tradition. The important development at this time was the emergence of Parishads, the closest equivalents of the Universities in ancient India. Later, especially in the period beginning in the 8th century A.D ‘tols or pathasalas’ were established by learned teachers where students lived in small communities studying logic, law and other advanced subjects.

In the 6th Century B.C Indian education was greatly affected by Buddhism and Jainism, which brought democratization and institutionalization through the emergence of monastic schools. Between 6th c. BC and 6th c. A.D Indian intellectual
life flourished especially at Taxila, Banaras, Kanchi, Vallabhi and Nalanda. By 18th c. A.D internal dissemination among Indian states had left the country vulnerable to outside pressure. Western culture began to appear in small pockets of subcontinent. One such group named ‘the Danes’ actually founded the first European University at Serampore near Calcutta in 1818.

In 1775 the English East India Company had acquired territories in India and in 1763 the Peace of Paris affirmed the British Supremacy in India. The British colonial rule toppled the then existed Indian educational system. One of the major issues to confront the colonial authorities was, whether to continue the methods of Indian education or to implement the Western. The proliferation of small colleges, which trained students for middle level positions in the colonial bureaucracy and the pressure from certain top Indian leaders, weighed the balance in favour of the latter choice. Sir, Charles Wood, thus articulated the educational policy in 1854 Dispatch to the Governors of English East India Company. It established the ground rules of founding a University system modelled on the University of London that would affiliate the already existing colleges, examine students, set standards for courses, prescribe texts and confer degrees. Thus in 1857, University of Calcutta, Bombay and Madras were come into being. By 1902 there were 191 colleges and five Universities in India including the University of Punjab (1882) [now in Pakistan], and the University of Allahabad (1887). In 1904 the Indian Universities Act was initiated, accordingly the Universities should assume more teaching responsibilities, offer research opportunities and exert more control over the affiliated colleges. Later in 1915, Banaras Hindu University (a teaching and residential university) without the power of affiliation, the University of Mysore (1916), the University of Patna (1917) and Osmania University (1918) were came into existence.

The Saddler Commission 1917 succeeded by a series of similar commissions suggested various reforms. However, World War II marked a brief hiatus in the formation and reformation of the universities, but its cessation and the declaration of Indian Independence (1947), the growth once again accelerated. Since independence the history of higher education in India has been largely determined by Five Year Plans, which tried to democratize and to be responsive to the needs of the country. One
of the most important developments since independence has been the establishment of a University Grants Commission in 1953, a Statutory Body whose main responsibility is to co-ordinate and maintain higher education standards, exercising control through its power to allocate grants to universities and colleges. In 1966 a report of the Education Committee to the Planning Commission suggested the standards of higher education would improve if certain selected colleges were given autonomous status. In 1976 the University of Bombay implemented this by granting autonomy to some of its affiliated colleges with the approval of UGC.
R. 2: Education Commissions and Committees - A Brief Review

In India a host of commissions and committees appointed by competent authorities from time to time both before and after the attainment of independence in 1947. They studied various aspects of higher education, in addition to the contribution made by researchers. In the former case the experts did make an in-depth study of the problems in respect of higher education and offered solution to them.

Wood's Dispatch, July 1954 (Aggarwal)

In view of its manifold importance in the evolution of a good system of education in India, Wood's Dispatch under the name of Sir, Charles Wood, came out. This document dealt with various objectives of education policy and medium of instruction, and recommended:

1. Creation of Department of Public Instruction under a Director, and Inspectors under him in each of the Provinces of the Country
2. Establishment of Universities in Bombay, Calcutta and Madras on the model of London University headed by Chancellor, Vice-Chancellor and Fellows consisting the Senate. The University would give affiliation to Colleges, conduct examinations and confer degrees
3. Establishment of training schools to teachers and scholarships during training period
4. Vocational training in Law, Medicine and Engineering
5. A scheme of Grant-in-aid for the development of education
6. Special emphasis on women education

Indian Education Commission 1882 – 83 (Aggarwal)

Lord Rippon appointed the first Indian Education Commission on February 3, 1882 with Sir, William Hunter member of Viceroy's Executive Council, as Chairman. The Commission (known as Hunter Commission) made a thorough survey on the entire field of education in India and made certain fundamental recommendations.

1. Govt. should withdraw from the management of Secondary Schools and take up the responsibility of Primary education. District Boards and Municipal Boards should be entrusted with the management of primary education
2. Indigenous schools should be developed and encouragement be given to backward areas
3. Grant – in – aid to promote enterprise in managing Secondary Education
4. Govt. should establish model schools
5. Bifurcation of curriculum of secondary education into ‘A’ course leading to the University and ‘B’ course for commercial and non-literary pursuits
6. On grants – in – aid to colleges, the strength of the staff and expenditure of the college should be the base

Indian Universities Commission (1902) (Ghosh)

On January 27, 1902, Lord Curzon appointed the Indian Universities Commission with Thomas Raleigh as its Chairman to enquire into the conditions and prospects of Universities established in British India and to make recommendations.
1. The Universities should be re-organized.
2. Uniformity in the nomenclature of the degrees in Arts and Science at different universities and examinations for the award of degrees
3. Provision for advanced courses of studies
4. More systematic and strict supervision of the affiliated colleges of the universities
5. The number of members in the Senate should be reduced and the number of members in the Syndicate should be between nine and fifteen. There should be proper representation of the teachers of the affiliated colleges in the Universities

Indian Universities Act 1904 (Ghosh)

The Imperial Legislative Council passed the Indian universities Act on March 21, 1904. By this Act the scope of the Universities was enlarged. The Universities were given right of teaching, conducting examinations and to conduct research. According to this Act, the minimum number of members to the Senate was fixed as fifty and the maximum as hundred and their term of office was fixed as five years. The Act provided for the election of members to the Senate. The Syndicate was accorded legal status. The Govt. was given right to give approval and to make amendments to the rules framed by the Senate of the Universities. The Govt. also
secure right to make laws in this regard. The Act also provided for the fixing of territorial jurisdiction for the Universities.

**Calcutta University Commission or Sadler Commission 1917–1919 (Aggarwal)**

The Saddler Commission under the Chairmanship of Dr. Michael Saddler submitted its report in 1919. This comprehensive report greatly influenced the subsequent courses of Secondary and Higher Education in the country. Though the Commission was to inquire into the problem of Calcutta University, it studied the working of other Universities too and recommended;

1. Intermediate colleges should be established where Arts, Science, Medicine, Education, Agriculture, etc. should be taught.
2. Intermediate classes should be separated from universities and a separate Board free from the control of Department of Education should be established.
3. Duration of the Degree Course should be of three years and curriculum should be arranged as such
4. An Honours Course should be initiated
5. Teachers of the Universities be given more powers
6. Appointment of Professors and Readers should be made by special Selection Committee
7. There should be an Academic Council and Board of Studies
8. Different Faculties should be created in Universities
9. A full – time and salaried Vice – Chancellor should be appointed in each Universities

**Hartog Committee 1928–29 (Ghosh)**

Hartog Committee an auxiliary committee of the Simon Commission under the Chairmanship of Sir, Philip Hartog submitted its report in September 1929. It was the first body to note the wastage and stagnation in Indian Education. The Commission stated that the Universities were overcrowded by students who were not fit for University Education and expansion is at the cost of quality, thus recommended:

1. Attention should be bestowed on consolidation rather than on expansion of education
2. The standard and service conditions of teachers should be raised and thus emphasis should be given for training and refresher courses
3. Efforts should be made to remove wastage and stagnation

**Sargent Report 1944** (Manager of Publications)

Sir John Sargent, Educational Advisor to the Govt. of India submitted its report in 1944. It was the first comprehensive educational plan formulated by the Central Advisory Board of Education (CABE) of the Govt. of India. The plan aimed at creating in India the same standard of education that had already been attained in England. It recommended:

1. An Indian University Grants Commission should be established to co-ordinate the work of different Universities
2. University education of three years should be restricted to selected students
3. Compulsory physical education should be provided to students
4. Establishment of Employment Bureaus
5. Establishment of Technical Schools and Technology Departments in Universities

**Dr. Tara Chand Committee 1948** (Pamphlets No. 52)

The committee appointed by the Govt. of India headed by Dr. Tara Chand, Joint Educational Advisor in its report put forward some valuable recommendations on higher education.

1. Admission to Degree course is made only after Secondary education
2. The pay scale of Teachers should be revised
3. There should be refresher courses for teacher after every five years.

**University Education Commission 1948 – 49** (UGC)

The Commission headed by Dr. S. Radhakrishnan, the distinguished scholar and educationist who became the second President of India was to make recommendations. The commission described in detail the aim of University Education and put forward valuable recommendations on all aspects of it.
1. A large number of well equipped and well-staffed Intermediate Colleges are to be established together with a good number of vocational institutes for students who do not go to Universities.

2. The maximum number in Arts and Science Faculties of a University is to be fixed at 3000 and 1500 respectively, in an affiliated college, to avoid overcrowding in Universities and Colleges.

3. University Classes should be supplemented by Library work and Tutorial.

4. The quality of teaching should be improved, hence stress for refresher courses.

5. Suggested agricultural education and research.

6. Gave importance to religious education, student welfare activities and student discipline.

7. A special examination for recruitment should be conducted.

8. Credit system should be introduced at Degree and Post Graduate level.

9. The University Education should be placed in the 'Concurrence List' and financing of higher education should be the responsibility of the State Govt. concerned.

10. University Grants Commission should be appointed immediately.

Secondary Education Commission 1952–53 (SEC)

The Govt. of India appointed SEC with Dr. Lakshmanaswami Mudaliar, then Vice Chancellor of Madras University as its Chairman. The Commission made certain important recommendations like the 'Two – years Intermediate' stage in the College should be replaced by 'One – year Pre – University Course with the other year being shifted to the higher secondary stage. The degree course in the college was to continue as a 'Three years course'.

Education Commission 1964 (Kothari)

The Govt. of India appointed an education commission in October 1964, with Dr. D. S. Kothari as its Chairman. The report of the Commission submitted on June 29, 1966 guided the policies, programmes and development of education for many decades.

1. A radical improvement in the quality and standard of higher education and research.

2. Expansion of higher education to meet the manpower needs of the national development.
3. Improvement of University organization and administration
4. To improve teaching and evaluation, should include internal and continuous assessment, seminars, discussions and workshops
5. Start Universities for many States
6. Autonomy for the Universities and for the departments within the Universities as well as for the Selected Colleges

In addition to these many valuable recommendations were made by the Commission on the role and appointment of Vice – Chancellor, University Legislation, Affiliated Colleges, Private and Govt. colleges, re- organization of courses, inter-disciplinary studies and inter-university board for developing advisory, research and service functions of all the Universities of the State.

Committee on Governance of Universities (UGC)

UGC appointed the Committee on June 1969 under the Chairmanship of Dr. P. B. Gajendragadkar. The Committee made recommendation on the structure of Universities, functions and powers of the Statutory Bodies, Servicing conditions of the Staff of the Universities and similar issues. It stressed the importance of social opinion, assistance and advice to Universities on all matters.

Challenge of Education; A Policy perspective 1985 (Ministry of Education)

This document was prepared by the Govt. of India in order to review the educational situation and to frame new policies for the further development of education in the Country. The four main chapters included in the document are:
1. Education, Society and Development
2. An Overview of Education
3. Development – a Critical Appraisal, and

This document became the basis of the National Policy of Education (NPE) of 1986. The document brought to the light the problem of wastage of resources in producing a very large number of educated unemployed in the Country. It recommended that degrees be de-linked from jobs minimizing heavy enrollment in the field of higher education especially at the undergraduate level. The document
emphasized the need for encouraging only those students who have the right academic aptitude for taking up studies at the postgraduate level.

National Policy Of Education (NPE) 1986 (Ministry)

The major recommendations of the document are given below:

1. Universities and Colleges of the country should be provided with more facilities for their all round development
2. Emphasized the system of autonomous colleges and wanted to replace the system of affiliated colleges gradually
3. Academic programmes and courses should have to be re-designed to meet the demands of specialization. Linguistic competence to be given greater importance
4. In the field of higher education State Councils should be established for the State Level Planning and co-ordination of programmes and projects
5. Emphasis on transformation of teaching methods
6. Financial support should be provided for high quality research in the Universities. Setting up of National Research Centers within the University system should be encouraged. Facilitate inter-disciplinary research.
7. Recommended for de-linking of degree from jobs and suggested a National Testing Service to conduct tests for determining the suitability of candidates for specialized jobs
8. Proposed for the establishment of rural Universities

Based on these recommendations the MHRD, Gov. of India have chalked out a programme of action for implementing NPE, like,

a) Providing adequate fund for courses and research.

b) Establishing institutions having close ties with national laboratories and agencies within Universities

c) Reviewing the management pattern of Universities and their Statutory bodies
d) Regulating admissions on the basis of facilities and merit
e) Setting up of State Councils of Higher Education
f) Envisaged developing 500 colleges as autonomous
g) In matters of designing courses envisaged to meet the growing demands of specialization
h) Establishment of a national apex body covering all areas of higher education for facilitating inter-disciplinary research, planning and implementation of programmes of post graduate education and to deal with the policy aspect of higher education

i) Setting up of an autonomous body named Accreditation and Assessment Council (NAAC) under the auspicious of UGC for maintaining and raising the quality of institutions of higher education

New Education Policy 1986 (AIU)

The AIU's document on higher education reiterates the importance of fresh thinking on the part of the Govt. and the Universities in preparing agenda for action in the field of higher education incorporating strategy for planning and management, autonomy and accountability, quality and content and course structure.

The policy proposed to establish autonomous colleges systematically and extensively. Suggested de-politicization of education in Colleges and Universities is imperative. University Acts need to be reviewed and amended. Regarding course content and structure wanted to help in realizing the social needs and thus incorporate flexibility. Instead of de-linking course should be designed so as to strengthen the nexus between degrees and jobs. It also recommended for setting up of a manpower-forecasting cell in the Ministry of Human Resource Development.

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The history of higher education in Kerala goes back to the very ancient days. The contribution of Buddhism to the spread of learning and literacy in Kerala was undoubtedly great. The ‘Ezhuthupalli’, the elementary school seems to be the legacy of the Buddhist period. In later days the people of Kerala copied the Buddhist examples of running educational institutions alongside their temples. During the Sangam age, which comprised the first five centuries of Christian era, as evident from Sangam works, all people irrespective of caste, creed or sex were entitled to get the benefits of education. Thus education was popular and universal in ancient Kerala. Under the reign of the ‘Ay Kings’ the educational institutions known as ‘Salais’ were attached to very important temples in the Southern part of Kerala. The scrupulous enforcement of rules of disciplines made salai of the Ay Kingdom, ideal, educational institutions.

But the Aryanisation in 8th century AD, the ideal universal education got jettisoned and education became the monopoly of the Brahmins. Women as well as the low castes were deprived of the right of education. However, the age of Kulasekharas (800 – 1102 AD) witnessed a remarkable progress in the field of education and learning. A number of Vedic Schools and Colleges sprang up in different parts of Kerala called ‘Salais’. The most important among them were Kandallur, Parthisekharapuram, Tiruvalla, Muzhikkulam, etc. Kandallur Salai even been renowned as the ‘Nalanda’ of South India. Though Salai was Vedic institutions the study of Sanskrit, Grammar, Theology, Philosophy, Law, etc. were allowed. Most of these Salais were converted into military academies during the Chera-Chola war of the 11th century. During this period education faced a major set back. The bulk of the population never went to formal educational institutions. The main means of education was non-formal. The State did not maintain or aid any school but left people to make their own arrangements for the education of their children.

In North and Central Kerala there were Sabha Matts to give Vedic education to Namboodhiri youths. Institutions like ‘Ezhuthupallis’ were there to give education to non-Brahmin children in each village under the ‘Ezhuthasan or Asan’. The
'Kalaris' also had a place of importance in the system of education that prevailed in ancient Kerala. This was an indigenous institution peculiar to Kerala where instruction in Physical training, gymnasium and warfare were imparted.

The arrival of Christian Missionaries in early 19th Century was an important landmark in the educational history of Kerala. They were the pioneers of modern education that the people of Kerala see today. The Christian missionaries take the abiding honour of having taken the first tangible step towards the introduction and diffusion of Western learning. In the beginning of the early 19th century Royal Family of Travencore had been paying much attention to the development of education. In 1817, the Rani of Travencore issued a remarkable Royal Rescript. According to which the State should defray the whole cost of education of its people in order that there might be no backwardness in the spread of enlightenment among them. By diffusion of education they might become better subjects and that the reputation of the State might be advanced thereby. The beginning of English Education in Travencore was under the reign of Swathi Thirunnal (1829 – 1847). In 1843, an English School was opened at Trivandrum and it was converted into Rajas Free School in 1936. A full – fledged Arts College was established at Trivandrum in 1866 affiliated to Madras University during the reign of Ayilliam Thirunnal may be the beginning of University education in Kerala. In 1875 a Law College was started with affiliation to University of Madras. The C.M.C College Kottayam (1890) and the Nagercoil Seminary (1893) were also affiliated to the University of Madras.

The starting of training college in the year 1910 and the reorganization of the Sanskrit College at Trivandrum marked another significant development in the field of higher education in Kerala. A Department for the publication of Sanskrit Manuscripts and the University Manuscripts Library were also organized during the period and which had been again re-organized and upgraded as Oriental Research Institute and Manuscripts Library. By this time, the Malabar district also made progress in the field education with the help of Basel missionaries. In 1848 a primary school was opened at Kallai (Calicut) by Basel Evangelical Mission and which later developed into Malabar Christian College. On March 1857, the mission opened at Tellicherry the Fist English School in North Malabar under the leadership of Dr.
Herman Gundret. In 1862 at Tellicherry Sir Edward Brennen established the Brennen School. It was later taken over by the Government and developed into Government Brennen College. The modern Victoria College, Palghat began in 1866 as a rate school and the Zamorins College Calicut in 1877 as a school for the young Princess in the Zamorins family.113

In 1937, Sri. Chithira Thirunnal Maharaja Travencore affiliating 10 Colleges (6 Govt. Colleges and 4 Pvt. Management), which were already affiliated to Madras University, founded the University of Travencore. With the imperative necessity and urge for Technological Education And Development, a College of Engineering at Trivandrum was also started in 1939. Again, in August 1939 the Central Research Institute was constituted for conducting research in various technological and scientific fields, both theoretical and applied. Thus the University of Travencore had made a good beginning in the establishment of an effective research programme. In 1942, the Maharajas College of Arts was merged with the Maharajas College of Science, and renamed as University College. With the growing demands for higher education, more colleges were started. By July 1949 at the time of integration of two princely states viz, Travencore and Cochin, the two Govt. colleges of Cochin area namely, Maharajas College Ernakulam (1875) and the Chittur Govt. College were also affiliated to the University of Travencore. Consequent upon the integration of Malabar area a few more colleges were affiliated to the University of Travencore.

With a view to reconstituting the University of Travencore as a Teaching and Federal University for the whole State of Kerala, the Kerala University Act (Act 14 of 1957 of the State Legislature) was brought into force on August 30, 1957. The University of Travencore has since then renamed as the University of Kerala. As on March 1968, the University of Kerala had 12 Faculties, 114 affiliated Colleges for General Education and 34 Professional Colleges.114 For the development of the postgraduate teaching and advanced research in various subjects two University Centers were started during the 3rd Five Year Plan. In 1968, the University Center at Calicut became a full-fledged University with 40 General Education Colleges and 10
Professional Colleges, located in Trichur, Palghat, Kozhikode, Kannur, Wynad and Kasaragode.

The Cochin University of Science and Technology started functioning from 10\textsuperscript{th} July 1971 under the Act No. 30 of 1971 as a Federal Type University with the aim of developing Industrially and Technologically based higher education and research. In the same year an Agricultural University was also established for the development of studies in agriculture, animal science, poultry and fishery etc. with the Headquarters at Trichur. And the College of Agriculture at Vellayani has become one of the constituent colleges of the University.

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R. 4: Myth & Missing in the Definition of (Educated) Unemployment

Generally in Kerala the term employment was indicated only to refer to those persons who had been working in the public, few registered private sectors and certain organized enterprise and the rest were grouped as unemployed. This to say at the outset is unscientific. One should adopt a precise and cogent approach to define and estimate the depth or extent of it in accordance with the changed circumstances. That is the frontiers or outlines of a definition should be clear, distinct and specific rather than broad and confusing. A review of the existing definitions pertaining to unemployment is done below.

"Unemployed persons are those above a specified age, who, on the specified day or specified week, fall into one of the following categories:

i) Workers available for employment whose contract of employment had been terminated or temporarily suspended and who was without a job and seeking work for pay or profit.

ii) Persons who were available for work during the specified period and were seeking work for pay or profit who were never previously employed or whose most recent status was other than that of employee or who had been in retirement.

iii) Persons without a job and currently available for work, who had made arrangements to start a new job at a date subsequent to the specified period.

iv) Persons on temporary or indefinite lay-off, without pay". (ILO, Blaug 1973)

This definition primed on a general stance did not contain details regarding specified age, day or week and the nature or type of work. It will ensemble only to "casual unemployed", as it uses the terms like terminated or temporarily suspended, retired, indefinite lay-off, and so on.

"People above age 6 years are unemployed if they were without gainful work throughout the week and reported themselves as seeking or available for work. They may be categorized into three statuses; (1) Usual Status, (2) Current Week Status, (3) Current Day Status. According US a person is unemployed if he was not working but was either seeking or was available for work for relatively longer time
during the reference period of 365 days. CWS classifies a person as unemployed if he has not worked for at least one hour on any day of the week but has been seeking work or had been available for work at any time during the week. CDS rate is the ratio of unemployed days per week (seeking or available for work) to the total labour supply per week (working plus seeking plus available days). (NSSO)

The distinguishing 'age as 6 and above' is beyond comprehension. Though the word, 'gainful' has a clearly known meaning and often authoritatively interpreted is not free from ambiguity as it lacks objectivity. Similarly, the use of reference period of one week is too narrow since a person may lose work or may get a rewarding work after that. Unemployed person normally does not report as envisaged (See table 1.9) since the benefit in doing so in Kerala is almost uncertain. A person to remain without any work for a year and least in any day of the year is unrealistic observation. Here the type and nature of the work should have to be clearly defined because many are in unorganized and informal sectors and self-employed whose hours of work or days of work largely varies.

"The unemployment rates based on daily status give a relatively higher levels of it than that based on weekly or usual status. The lower the reference period the higher would be the work participation rate and lower the incidence of unemployment. On the whole, the unemployment rates computed for India are generally low when compared with other countries because people in poorer countries cannot afford to remain without work." Thus unemployment rate estimated for India are not comparable with other similar estimates for the USA or UK." (UNFPA 1997)

"One may question the validity of a measurement with reference to hours of work. The percentage of unemployment reported in a given NSS round is an average of the varying weekly situations recorded for different periods during the year over which the investigation is spread. There is no reason to believe that those classified, as unemployed during the specific reference week preceding the date of Survey of the households would necessarily be without work through out the year. The fact that sample is spread over the entire year does not remove this limitations. (Committee of Experts 1970)
"In the NSS Labour Force Surveys unemployment and underemployment have been measured mainly on the basis of the time criterion. The use of this 'available for work criterion' without reference to any wage rate is meaningless and the data based on this approach will be a kind of 'hotch potch' aggregate". (Raj Krishna 1973)

"An unemployed person is one in the age group of 15 – 59 without any gainful employment during the reference week and are either seeking or available for work". (DES Survey 1980)

"Unemployed are those persons between the age group 15 – 60 who were not able to secure jobs even for a day during the year and are actively searching for jobs. There are two categories of unemployed: chronically unemployed or open unemployed and underemployed. Chronically unemployed or open unemployed are defined as those who have not worked for a single day during the reference year and are available for and seeking employment. While underemployed are those who have worked for major part of the year (less than 183 days) and are available and seeking for more days of work". (DES Survey 1987)

The stress of reference period of one week is too short to estimate unemployment. As in the case of NSSO definition it also did not clarify the term 'gainful' employment. The selection of the age group in two estimates as 15 – 59 or 15 – 60 is misleading, as the age of retirement in Kerala is 55. (Kerala Service Rule 1974) The use of 'even for a day or single day' is quite unrealistic since people cannot endure without any work. The type and nature of work should be defined distinctly. Actively searching without engaging in any job is skeptical. The distinction of chronically unemployed and underemployed is also unrefined. In that case even farmers whose working days and nature highly differ will have to be treated as underemployed even if they procure sizeable income.

"Persons seeking employment for the first time and persons employed before but were out of employment and were seeking work during the reference period who came under the category of non-workers are termed as unemployed. As all the marginal workers including those who put in regular work of more than one
hour a day was treated as workers, the unemployed denote open unemployment". (Census of India 1961)

The definition is quite vague since persons seeking employment for the first time, employed before but were out of that and seeking work during the reference period etc, convey the same meaning, i.e., ‘unemployed persons are those not in work’. Similarly those in employment before but were out of that at present may be due to suspension or lockout or punishment or under physical or mental ailment. ‘Those who put in regular work of more than one hour a day’ as workers and ‘including all age groups’ forgetting that the work force constitute 15–55 ages only, are beyond comprehension.

"The whole population is categorized into three: main workers, marginal workers and non-workers. The main workers are those whose main activity was participation in any economically productive work and who had worked for 183 days or more. Work involved not only actual work but also effective supervision and direction. Marginal workers are those whose main activity was participation in any economically productive work for less than 183 days. While non-workers are those who had not done any work at any time". (Census of India, 1991, 2001)

The terms like economically productive work, effective supervision and direction, and not done any work at any time are extremely general and shallow. Of course, one may doubt whose work is an economically productive one? The distinction based on the days of work done is specious. Some people may work 10 hour a day but 150 days or less than that an year while certain others may work a couple of hours a day but more than 200 days an year with which they can procure adequate remunerative income. It will be doubtful where to include college teachers whose work is fixed as 180 days per year by UGC? “Not done any work at any time” again is not a reasonable argument.

"Most of the controversy about definition of unemployment has arisen because of a strong urge to seek, defend or use a single criterion that may be useful for all purposes. But this urge is evidently irrational and unnecessary. If the necessary data are available application on ‘n’ criteria will yield $2^n - 1$ different
estimate for the same population at a time. Hence four criteria which if used in combination of two or more as the circumstances demand will give useful estimates, which may be used for policy formulations”. (Raj Krishna, 1973)

The four criterion referred by Raj Krishna are,

1. **Time criterion** – if a person had no gainful employment at least one day of the week and was seeking work at current rates of remuneration.

2. **Income criterion** – whether it is able to provide minimum living or not.

3. **Willingness criterion** – if one is willing to do more than what is doing at present if it is offered on terms to which he/she is accustomed.

4. **Productivity criterion** – one is removable from present employment and that removal would not reduce output.

‘Hours of work done’ criterion is unscientific, as the minimum working hours for earning at least minimum subsistence income per month largely varies. In the case of income criterion Raj Krishna himself defy that it abandon the time altogether for measuring the unemployed. The willingness criterion is also unempirical. For instance, if one ask any worker in India whether he/she is willing to work more provided he/she get some additional payment. Invariably, the answer will be yes. (See Table 4.9 Chapter 4) Does this mean that they are unemployed? It is extremely difficult to estimate the productivity of a worker in the contemporary composite production and distribution scenario. Productivity of worker differs individual-to-individual and occupation-to-occupation. Of course, ‘n’ criteria will yield different estimates with different policy options. But the relevant point is that whether these will help to make accurate estimation on real volume of unemployed. These criteria will definitely give different figures of unemployment for same population and that in turn put the policy maker in utter confusion.

The afore-stated ambiguities involved in the definitions of unemployment preclude the present study from applying it again in the very context of Kerala economy to reach out the exact size of unemployed or educated unemployed persons. Suppose a person engage tuition classes for two batches of ten students in four days of a week for ten months a year and earns Rs. 5000/- per month by charging Rs. 250/-
per student. Does this mean that the person is unemployed since he is working only
two hours in each of four days of the week or 160 days on an average in a year or he
is not working under the title of public or private sector or other similar agencies?
Similarly a farmer who procures a minimum of Rs. 50000/- per year may have full
time regular work only in the sowing and reaping seasons. In all other seasons he
may not have any work in all days of the week. And if he has, the hours of work per
day may be two or three only. Does this mean that this farmer is unemployed?

According to Sen, “employment is an important means of generating and
distributing income, but a person can be rich yet unemployed if he has other sources
of income and also a person can work very hard and still be very poor”. Against this
backdrop Sen (1984) have distinguished three different aspects of employment:
(1) The income aspect: employment gives an income to the employed;
(2) The production aspect: employment yields an output;
(3) The recognition aspect: employment gives a person the recognition of being
engaged in something worthwhile.

The income aspect of employment is concerned with that part of one’s
income, which is received on condition that one works. .... The focus of the income
aspect of employment should be on this question of conditionality, and not just on
whether the income level is high or low. An adequate level of employment must be
defined in terms of its capacity to provide minimum living to the population. The
ILO Mission to Kenya took an approach to unemployment similar to it. (Sen, 1984)
He further remarks, “to identify unemployment with poverty seems to impoverish
both notions since they relate to two quite different categories of thought. Further, it
can also suggest erroneous policy measures in seeking extra work for a person who is
already working very hard but is poor. In contrast, the income approach used here is
concerned not with checking whether a person’s income is high or low, but with the
extent to which it is conditional on the work he performs”. (Page 246)

Present study, thus views employment (unemployment,) on this perspective.