

CHAPTER III

THE COST OF EDUCATION

The present chapter attempts to adopt a more suitable/appropriate approach to measure Unit Cost and then to measure the benefits of Teacher Education colleges in Manipur during the last decade or so. First, we attempt to analyze the taxonomy of costs used in the Economics of Education. Costs include the value of not only those inputs on which money is spent, but also those for which no expenditure is incurred. Thus, while expenditure is expressed only in monetary terms, cost can be expressed both in monetary as well as in real or physical terms.

In economic usage, Cost means the amount of expenditure incurred in obtaining the services of a factor of production. In the Economics of Education, the educational costs refer to that expenditure incurred in obtaining the services of factor labour as an educated or a trained one in a particular field of production. In other words, educational costs mean the expenses on education which consist mainly of social costs, private costs and opportunity costs.

Different educational economists have coined different terms of educational costs. Becker has classified educational costs as

- i) Private Direct costs;
- ii) Private Indirect Costs;
- iii) Social Direct Costs
- iv) Social Indirect Costs.

3.1 Private Direct Costs

Becker estimated private direct costs by subtracting from the gross tuition and fees, contributions made by the federal government on account of the tuition and fees of the veterans. He then made correction from the tuition and fees paid for extension courses and public services, because enrolment figures include such students. He also made certain correction for part time students and scholarships from colleges and other sources.

He also calculated the costs on books, supplies, travel between home and school and capital. In short, he assumed private direct costs as the payments made by the students in terms of tuition fees and other expenses incurred for study purposes less the receipts from the government and other sources in terms of scholarships etc.

3.2 Private Indirect Costs

These are constituted by the earnings foregone by the students during their studies. There are certain difficulties in computing the earnings foregone by the students while pursuing the course. A proxy figure/value may be calculated by taking into account the minimum daily wages to be paid to skilled labour fixed by the labour department from time to time or by the average daily pay for an untrained teacher and by multiplying to it by the number of days required to complete the course. However if such values are added to calculate unit cost, the figure will be very high and may be inflated. For the sake of simplicity, the earnings foregone can be excluded as it can be neutralized with the effects of spill-over benefits as pointed out earlier in chapter II.

3.3 Social Direct Costs

Social Direct Costs equal the sum of current educational expenditure and capital used upon education and property taxes that would have been levied, if schools were not tax-exempt. In the present analysis, social direct cost will be calculated by dividing the cost into two components viz: (i) current educational expenditure and (ii) capital used upon education.

- (i) While calculating the current educational expenditure, admission fees, tuition fees including university enrolment fees, examination fees and minimum expenses incurred on purchasing prescribed textbooks, lump-sum expenditure on stationery items and some other contingencies are taken into account.

- (ii) In fact, while calculating the expenditure on capital used upon education particularly the expenditure for construction of buildings like class rooms, administrative blocks, library buildings, laboratories and other basic infrastructural facilities, the marginal rate of return on investment technique can be used as the most appropriate technique. However, due to non-availability of adequate, uniform and comparable data for different educational institutions, we are compelled to use the proxy figures for such capital overheads simply by estimating the imputed rents of hiring such buildings or equipments or the minimum rate of return if investment is done in other easily calculable heads.

3.4 Social Indirect Costs

The social indirect costs were obtained by Becker by adding the values of the property tax foregone on the property owned by educational institutions and the opportunity cost of capital used in education. The latter measures the rate of return on other capital plus the depreciation on educational capital.

Sharma calculated the social indirect cost of teacher education by inputting the value of property tax exempted, assuming that it was a linear function of the replacement value of the real estate used by colleges and universities. He also took into account other taxes from which schools were exempted.

The calculation of social direct costs and social indirect costs in terms of property taxes foregone and the opportunity cost of capital (in terms of rate of return of other capital plus the depreciation on education capital) as adopted by Becker would be somewhat very difficult to employ in the Indian system since such taxes are not imposed and the required information regarding depreciation and rate of return on investment etc. are not maintained.

3.5 Calculation of Unit Cost

The calculation of Unit Cost for Teacher Education Colleges in Manipur is not an easy task since there are lots of discrepancies/irregularities in the data provided by the different colleges. Further the problem is aggravated since the present study attempts to analyze the Costs and Benefits of both private and Government colleges. There are five Teacher Education Colleges in Manipur at present and our analysis covers all these colleges. But the main difficulty in making a common unit of measurement of cost for each college is that out of the five colleges, one college namely D.M. College of Teacher Education is a full-fledged government college and all the employees in the college, being government ones, enjoy all the benefits in terms of salaries, gratuity, pension benefit etc. as admissible to other government employees of the state.

Moreover, the students admitted in this college also pay lower fees as decided by the government in comparison with other private colleges. In addition to these, the college receives additional assistance from UGC and state government for construction of buildings and other infrastructural facilities.

On the other hand, there are two colleges namely, Trinity Teacher Training College and Kanan Devi Memorial College of Teacher

Education, which are exclusively private. These colleges do not receive any grants either from the government both central and state or other funding agencies like UGC, NEC, DONER, etc. as per statements of the college authorities. The colleges are being run exclusively by collecting fees from the students.

The other college namely Thokchom Ibotombi Institute of Teacher Education and Training is receiving some financial aids from the state government for purchasing books and journals and sports equipments. The college is run with the fees collected from the students and meagre assistance from the state government. However the college never gets any financial assistance from the educational funding agencies including UGC.

In the light of the above facts, Unit Cost of each type of college cannot be calculated by using a common formula. However, for the sake of simplicity and convenience of our analysis, for purely private colleges - Trinity Teacher Training College and Kanan Devi Memorial College of Teacher Education, we will take into account only the recurring expenses incurred by the students in terms of admission fees, tuition fees, examination fees etc.

In the case of D. M. College of Teacher Education, while calculating Unit Cost, we will take into account fees paid by students and other recurring expenses incurred by the government and UGC during the period of completion of the course, that is, one year.

On the other hand, in the case of TIITET and RKSDCE, Unit Cost will be calculated by taking into account the total fees paid by the students for the course and also other recurring assistance received from the state government from time to time.

Therefore, Unit Cost will be calculated in two terms/ways:

- i) without pay components
- ii) with pay components

In the case of the purely private colleges, Unit Cost with pay components and without pay components will remain identical as the institutions are run exclusively by the funds collected from the students only.

Whereas in the case of Government Colleges, the two figures will not be identical and there will be marked difference between the two since the government employees are paid much higher.

In our analysis, in order to maintain uniformity, the unit cost will be calculated by taking into accounts the pay components also. However differences in unit cost cannot be compared in absolute terms since the unit cost will be too high in the case of Government colleges as the salaries for the teachers are too high. Therefore comparison is to be made in relative terms by expressing Effective Unit Cost and Average Wastage into percentage.

3.6 Calculation of College wise Effective Unit-Cost and Wastage

(i) D. M. College of Teacher Education

Analysis of effective unit cost and wastage in respect of D. M. College of Teacher Education during 2003-04 to 2009-10 is also shown in the **Table-3.1**. It is shown that the effective unit cost with salary component in DMCTE is Rs.36,744 in 2003 - 04 and increases to Rs.42,583 in 2004-05. Then it shoots up to Rs.2,97,822 in 2005-06 but decreases sharply to Rs.72,589 in 2006-07 again. Then it slightly increases to Rs.75,290 in 2007-08 and then decreases again to Rs.54,967 in 2008-09 and then decreases further to Rs.51,304 in 2009-10. Thus the average

Table – 3.1

Effectiveness with Salary component for DMCTE

1	2	3	4	5	6	7	8
Year	Expenditure (Rs)	No. of Students	Unit cost per student (2÷3)	Passed	Failed + Dropout	Effective unit cost (2÷5)	Wastage (4x6)
2003-04	61,36,347	230	26,679	167	63	36,744	16,80,777
2004-05	65,57,786	230	28,512	154	76	42,583	21,66,912
2005-06	74,45,565	230	32,372	25	205	2,97,822	66,36,260
2006-07	65,33,055	230	28,404	90	140	72,589	39,76,560
2007-08	94,11,248	230	40,918	125	105	75,290	42,96,390
2008-09	91,24,578	230	39,672	166	64	54,967	25,39,008
2009-10	95,42,576	230	41,489	186	44	51,304	18,25,516
Average	78,21,593	230	34,006	130	99.5	90,185	33,03,060

$$\text{Percentage Average Effective Unit Cost} = \frac{90,185}{34006} \times 100 = 265.20\%$$

$$\text{Percentage average wastage} = \frac{33,03,060}{78,21,593} \times 100 = 42.23 \%$$

Table – 3.2

Effectiveness without Salary component for DMCTE

1	2	3	4	5	6	7	8
Year	Expenditure (Rs)	No. of Students	Unit cost per student (2÷3)	Passed	Failed + Dropout	Effective unit cost (2÷5)	Wastage (4x6)
2003-04	28,79,600	230	12,520	167	63	17,243	5,75,920
2004-05	28,79,600	230	12,520	154	76	18,698	9,51,520
2005-06	28,79,600	230	12,520	25	205	1,15,184	25,66,600
2006-07	28,79,600	230	12,520	90	140	31,995	17,52,800
2007-08	28,79,600	230	12,520	125	105	23,036	13,14,600
2008-09	29,85,400	230	12,980	166	64	17,984	8,30,720
2009-10	31,17,500	230	13,554	186	44	16,760	5,96,376
Average	29,28,700	230	12,733	130	99.5	34,414	12,57,339

$$\text{Percentage Average Effective Unit Cost} = \frac{34,414}{12,733} \times 100 = 270.27\%$$

$$\text{Percentage average wastage} = \frac{12,57,339}{29,28,700} \times 100 = 42.93\%$$

effective unit cost with salary component is worked out to be Rs.90,185 and average wastage at Rs.33,03,060 which are very high. The percentage average effective unit cost is, thus, equal to 265.20 and percentage average wastage is also equal to 42.23. Hence the effectiveness of this college is very low.

The **Table-3.2** indicates that the effective unit cost without salary component in DMCTE is Rs.17,243 in 2003-04 and slightly increases to Rs.18,698 in 2004-05. Then it shoots up to Rs.1,15,184 in 2005-06 but decreases sharply to Rs.31,995 in 2006-07 again. Then it decreases gradually over the years to a minimum of Rs.16,760 in 2009-10. Thus the average effective unit cost without salary component is worked out to be Rs.34,414 and average wastage at Rs.12,57,339. The percentage average effective unit cost is, thus, equal to 270.27 and percentage average wastage is also equal to 42.93. Hence the effectiveness of this college is very low.

In conclusion, it is quite clear from the above table that the average effective unit cost of the college with salary component is 265.20% and the average wastage is 42.23%. So, its full potentials are not fully utilized. This college too needs to be improved for effective management.

Table – 3.3

Effectiveness with Salary component for KDMCE

1	2	3	4	5	6	7	8
Year	Expenditure (Rs)	No. of Students	Unit cost per student (2÷3)	Passed	Failed + Dropout	Effective unit cost (2÷5)	Wastage (4x6)
2003-04	21,42,000	100	21,420	86	14	24,906	2,99,880
2004-05	21,42,000	100	21,420	76	24	28,184	5,14,080
2005-06	21,42,000	100	21,420	95	5	22,547	1,07,100
2006-07	21,42,000	100	21,420	94	6	22,787	1,28,520
2007-08	21,42,000	100	21,420	54	46	39,666	9,85,320
2008-09	21,65,000	100	21,650	71	29	30,492	6,27,850
2009-10	21,65,000	100	21,650	75	25	28,866	5,41,250
Average	21,48,571	100	21,485	78.7	21.2	28,206	4,57,714

Percentage average effective unit cost = $\frac{28206}{21485} \times 100 = 131.28\%$

Percentage average wastage = $\frac{457714}{2148571} \times 100 = 21.30\%$

Table – 3.4

Effectiveness without Salary component for KDMCE

1	2	3	4	5	6	7	8
Year	Expenditure (Rs)	No. of Students	Unit cost per student (2÷3)	Passed	Failed + Dropout	Effective unit cost (2÷5)	Wastage (4x6)
2003-04	11,77,200	100	11,772	86	14	13,688	1,64,808
2004-05	11,77,200	100	11,772	76	24	15,489	2,82,528
2005-06	11,77,200	100	11,772	95	5	12,391	58,860
2006-07	11,77,200	100	11,772	94	6	12,523	70,632
2007-08	11,79,600	100	11,796	54	46	21,844	5,42,616
2008-09	10,91,000	100	11,910	71	29	15,366	3,16,390
2009-10	10,91,000	100	11,910	75	25	14,546	2,72,750
Average	11,52,914	100	11,529	78.7	21.2	15,121	2,44,083

$$\text{Percentage average effective unit cost} = \frac{15121}{11529} \times 100 = 131.15 \%$$

$$\text{Percentage average wastage} = \frac{244083}{1152914} \times 100 = 21.17 \%$$

(ii) Kanan Devi Memorial College of Education

The analysis of effective unit cost and wastage in respect of Kanan Devi Memorial College of Education during 2003-04 to 2009-10 is shown in the **Table-3.3**. It shows that the effective unit cost with salary component in KDMCE is Rs.24,906 in 2003-04 and increases to Rs.28,184 in 2004-05. Then it decreases to Rs.22,547 in 2005-06 and remain stagnant at Rs.22,787 in 2006-07. Then it sharply increases to Rs.39,666 in 2007-08 and then it decreases again to Rs.30,492 in 2008-09. And then it further decreases to Rs.28,866 in 2009-10. The average effective unit cost with salary component is worked out at Rs.28,206 and average wastage at Rs.4,57,714. The percentage average effective unit cost is worked out at 131.28 and percentage average wastage at 21.30. Hence the effectiveness of this college is low.

Also the **Table-3.4** shows that the effective unit cost without salary component in 2003-04 is Rs.13,688 and increases to Rs.15,489 in 2004-05. Then it decreases to Rs.12,391 in 2005-06 and it remain almost unchanged to Rs.12,523 in 2006-07. Then it increased in 2007-08 at Rs.21,844 but it decreases to Rs.15,366 in 2008-09 and further to Rs.14,546 in 2009-10. For this institute, the average effective unit cost turns out to be Rs.15,121 and the average wastage Rs.2,44,083. So the

percentage average effective unit cost is 131.48 and percentage average wastage is 21.17.

From the above analysis, it shows that the average effective unit cost of the college with salary component is as high as 131.28% and the average wastage is 21.30%. Hence we can say that the college's potential is not fully utilized and it needs to be improved for effective management.

(iii) R. K. Sanatombi Devi College of Education

Again, analysis of effective unit cost and wastage in respect of R.K. Sanatombi Devi College of Education during 2003-04 to 2009-10 is shown in the **Table -3.5**. It is shown in the table that the effective unit cost with salary component in RKSDCE is Rs.24,275 in 2003-04 and decreases to Rs.22,298 in 2004-05. Then it increases to Rs.27,106 in 2005-06 and again further to a high of Rs.29,885 in 2006-07. Then it slightly decreases to Rs.28,687 in 2007-08 and then sharply increases to Rs.38,318 in 2008-09. And then it further increases to Rs.38,521 in 2009-10. The average effective unit cost with salary component is worked out at Rs.29,870 and average wastage at Rs.10,29,023. The percentage average effective unit cost is worked out at 142.65 and percentage average wastage at 29.91. Hence the effectiveness of this college is low.

Table – 3.5

Effectiveness with Salary component for RKSDCE

1	2	3	4	5	6	7	8
Year	Expenditure (Rs)	No. of Students	Unit cost per student (2÷3)	Passed	Failed + Dropout	Effective unit cost (2÷5)	Wastage (4x6)
2003-04	29,13,000	150	19,420	120	30	24,275	5,82,600
2004-05	29,88,000	150	19,920	134	16	22,298	3,18,720
2005-06	30,63,000	150	21,086	113	37	27,106	7,80,182
2006-07	31,38,000	150	20,920	105	45	29,885	9,41,400
2007-08	32,13,000	150	21,420	112	38	28,687	8,13,960
2008-09	43,30,000	200	21,650	113	87	38,318	18,83,550
2009-10	44,30,000	200	22,150	115	85	38,521	18,82,750
Average	34,39,285	164.2	20,938	116	48.2	29,870	10,29,023

$$\text{Percentage average effective unit cost} = \frac{29870}{20938} \times 100 = 142.65\%$$

$$\text{Percentage average wastage} = \frac{1029023}{3439285} \times 100 = 29.91\%$$

Table – 3.6

Effectiveness without Salary component for RKSDCE

1	2	3	4	5	6	7	8
Year	Expenditure (Rs)	No. of Students	Unit cost per student (2÷3)	Passed	Failed + Dropout	Effective unit cost (2÷5)	Wastage (4x6)
2003-04	20,79,000	150	13,860	120	30	17,325	4,15,800
2004-05	21,54,000	150	14,360	134	16	16,074	2,29,760
2005-06	22,29,000	150	14,860	113	37	19,725	5,49,820
2006-07	21,96,000	150	14,640	105	45	20,914	6,58,800
2007-08	22,71,000	150	15,140	112	38	20,276	5,75,320
2008-09	28,36,000	200	14,180	113	87	25,097	12,33,660
2009-10	29,36,000	200	14,680	115	85	25,530	12,47,800
Average	23,85,857	164.2	14,531	116	48.2	20,705	7,01,565

$$\text{Percentage average effective unit cost} = \frac{20705}{14531} \times 100 = \text{Rs.} 142.48 \%$$

$$\text{Percentage average wastage} = \frac{701565}{2385857} \times 100 = 29.40 \%$$

The **Table-3.6** shows that the effective unit cost without salary component in 2003-04 is Rs.17,325 and slightly decreases to Rs.16,074 in 2004-05. Then it increases to Rs.19,725 in 2005-06 and then to Rs.20,914 in 2006-07. It remain almost unchanged in 2007-08 at Rs.20,276. But it increases further to Rs.25,097 in 2008-09 and to Rs.25,530 in 2009-10 which is the highest during the study. For this institute, the average effective unit cost turns out to be Rs.20,705 and the average wastage Rs.7,01,565. So the percentage average effective unit cost is 142.48 and percentage average wastage is 29.40.

From the analysis shown above, it can be concluded that the average effective unit cost with salary component of this college is as high as 142.48% and the average wastage is also 29.40%. Hence we can conclude that the potentialities of the college are not fully utilized. The management of the college needs to be improved further.

(iv) **T.I. Institute of Teacher Education and Training**

An analysis of effective unit cost and wastage in respect of Thokchom Ibotombi Institute of Teacher Education and Training during 2003-04 to 2009-10 is shown in the **Table-3.7**. The table shows that the effective unit cost with salary component in TIITET is Rs.74,148 in 2003-

Table – 3.7

Effectiveness with Salary component for TITET

1	2	3	4	5	6	7	8
Year	Expenditure (Rs)	No. of Students	Unit cost per student (2÷3)	Passed	Failed + Dropout	Effective unit cost (2÷5)	Wastage (4x6)
2003-04	20,02,000	100	20,020	27	73	74,148	14,61,460
2004-05	20,02,000	100	20,020	54	46	37,074	9,20,920
2005-06	20,02,000	100	20,020	47	53	42,595	10,61,060
2006-07	20,02,000	100	20,020	42	58	47,666	11,61,160
2007-08	20,02,000	100	20,020	54	46	37,074	9,20,920
2008-09	20,25,000	100	20,250	60	40	33,750	8,10,000
2009-10	20,25,000	100	20,250	54	46	37,500	9,31,500
Average	20,08,571	100	20,085	48.2	50.28	44,258	10,38,145

$$\text{Percentage average effective unit cost} = \frac{44258}{20085} \times 100 = 220.35\%$$

$$\text{Percentage average wastage} = \frac{1038145}{2008571} \times 100 = 51.68 \%$$

Table – 3.8

Effectiveness without Salary component for TITET

1	2	3	4	5	6	7	8
Year	Expenditure (Rs)	No. of Students	Unit cost per student (2÷3)	Passed	Failed + Dropout	Effective unit cost (2÷5)	Wastage (4x6)
2003-04	17,62,000	100	17,620	27	73	65,259	12,86,260
2004-05	17,08,600	100	17,086	54	46	31,640	7,85,956
2005-06	16,84,816	100	16,848	47	53	35,847	8,92,944
2006-07	15,99,400	100	15,994	42	58	38,080	9,27,652
2007-08	13,76,400	100	13,764	54	46	25,488	6,33,144
2008-09	13,64,600	100	13,646	60	40	22,743	5,45,840
2009-10	13,31,800	100	13,318	54	46	24,662	6,12,628
Average	15,46,800	100	15,468	48.2	50.28	34,817	8,12,060

$$\text{Percentage average effective unit cost} = \frac{34817}{15468} \times 100 = 225.09\%$$

$$\text{Percentage average wastage} = \frac{812060}{1546800} \times 100 = 52.50\%$$

04 and reduce to Rs.37,074 in 2004-05. It increases to Rs.42,595 in 2005-06 and again to Rs.47,666 in 2006-07. Then it decreases to Rs.37,074 in 2007-08 and decrease further lower to Rs.33,750 in 2008-09. And then it increases to Rs.37,500 in 2009-10. The percentage average effective unit cost is worked out to be 220.35 and percentage average wastage at 51.68. Hence the effectiveness of this college is low.

The **Table- 3.8** shows that the effective unit cost without salary component of TIITET in 2003-04 is Rs.65,259 which is the highest during the course of the study and the lowest being Rs.22,743 in 2008-09. For this institute, the average effective unit cost turns out to be Rs.34,817. So the percentage average effective unit cost is 225.09 and percentage average wastage is 52.50.

To conclude, it can be said that the average effective unit cost with salary component is as high as 220.35% and the average wastage is 51.68%. Thus it is clear that potentialities of the college are not fully utilized and the management of the college needs to be improved effectively.

(v) Trinity Teacher Training College

An analysis of Effective Unit-Cost and Wastage in respect of Trinity Teacher Training College during 2003-04 to 2009-10 is also

Table – 3.9

Effectiveness with Salary component TTTC

1	2	3	4	5	6	7	8
Year	Expenditure (Rs)	No. of Students	Unit cost per student (2÷3)	Passed	Failed + Dropout	Effective unit cost (2÷5)	Wastage (4x6)
2003-04	15,47,000	100	15,470	80	20	19,337	3,09,400
2004-05	17,42,000	100	17,420	63	37	27,650	6,44,540
2005-06	17,42,000	100	17,420	62	38	28,096	6,61,960
2006-07	19,52,000	100	19,520	57	43	34,245	8,39,360
2007-08	20,02,000	100	20,020	62	38	32,290	7,60,760
2008-09	20,25,000	100	20,250	59	41	34,322	8,30,250
2009-10	22,25,000	100	22,250	66	34	33,712	7,56,500
Average	18,90,714	100	18,907	64.14	35.85	29,950	6,86,110

$$\text{Percentage average effective unit cost} = \frac{29950}{18907} \times 100 = 158.40 \%$$

$$\text{Percentage average wastage} = \frac{686110}{1890714} \times 100 = 36.28 \%$$

Table – 3.10

Effectiveness without Salary component for TTTC

1	2	3	4	5	6	7	8
Year	Expenditure (Rs)	No. of Students	Unit cost per student (2÷3)	Passed	Failed + Dropout	Effective unit cost (2÷5)	Wastage (4x6)
2003-04	11,87,000	100	11,870	80	20	14,837	2,37,400
2004-05	13,82,000	100	13,820	63	37	21,936	5,11,340
2005-06	13,06,400	100	13,064	62	38	21,070	4,96,432
2006-07	15,16,400	100	15,164	57	43	26,603	6,52,052
2007-08	15,66,400	100	15,664	62	38	25,264	5,95,232
2008-09	15,81,000	100	15,810	59	41	26,796	6,48,210
2009-10	17,81,000	100	17,810	66	34	26,984	6,05,540
Average	14,74,314	100	14,740	64.14	35.85	23,355	5,35,172

$$\text{Percentage average effective unit cost} = \frac{23355}{14743} \times 100 = 158.41 \%$$

$$\text{Percentage average wastage} = \frac{5,35,172}{14,74,314} \times 100 = 36.29 \%$$

shown in the **Table-3.9**. Here the table shows that the effective Unit Cost with salary component in TTTC is Rs.19,337 in 2003-04 and increases to Rs.27,650 in 2004-05. It still increases to Rs.28,096 in 2005-06 and again further to a high of Rs.34,245 in 2006-07. Then it decreases to Rs.32,290 in 2007-08 and then increases again to Rs.34,322 in 2008-09. And then it slightly decreases to Rs.33,712 in 2009-10. The average effective unit cost with salary component is worked out at Rs.29,950 and average wastage at Rs.6,86,110. The percentage average effective unit cost is worked out at 158.40 and percentage average wastage at 36.28. Hence the effectiveness of this college is low. This shows that the effective unit cost is slightly high, so the college is ineffective.

Again, the **Table-3.10** shows that the effective Unit Cost without salary component in 2003-04 is Rs.14,837 and gradually increases to Rs.26,984 in 2009-10 which is the highest during the course of the study. For this institute, the average effective Unit Cost turns out to be Rs.23,355 and the average Wastage Rs.5,35,172. So the percentage average effective Unit Cost is 158.41 and percentage average Wastage is 36.29.

From the above analysis, it can be concluded that the average effective unit cost with salary component is 158.41% and the average

wastage is 36.28% and hence the potentialities of the college is not fully utilized. The college needs to be improved for effective management.

3.7 Relative comparison in terms of p.c. effective unit cost and p.c. wastage among the five colleges

The **Table 3.11** below shows that the effective unit cost with salary component during the period from 2003-04 to 2009-10 is 142.65% in RKSDCE, 265.20% in DMCTE, 131.28% in KMDCE, 220.35% in TIITET and 158.40% in TTTC. The wastages in these colleges are 29.91%, 42.23%, 21.30%, 51.68% and 36.28% respectively. Out of these five colleges, DMCTE has the highest figure of effective unit cost with 265.20% and TIITET having the highest figure in wastage. KMDCE has the minimum figure of effective unit cost having 131.28% with a minimum wastage of 21.30% only.

Effective Unit Costs without salary component are also worked out to be 270.27% in DMCTE which is the highest out of the five colleges followed by 225.09% in TIITET, 158.41% in TTTC, 142.48% in RKSDCE and 131.15% in KDMCE being the lowest. In the case of wastage, TIITET has the highest amount which is 52.50% and KDMCE has the lowest that is 21.17%. Again the average effective unit cost for 5 colleges with salary component is worked out to be 183.57% and the

average wastage is 36.28%. The average effective unit cost without salary component is worked out to be 185.48% and the average wastage with 36.45%.

Table 3.11

Relative comparison in terms of effective unit cost (%) and wastage (%)

SL. No.	College	With salary component		Without salary component	
		Effective Unit Cost (%)	Wastage (%)	Effective Unit Cost (%)	Wastage
1	D.M.C.T.E.	265.20	42.23	270.27	42.93
2	K.D.M.C.E.	131.28	21.30	131.15	21.17
3	R.K.S.D.C.E.	142.65	29.91	142.48	29.40
4	T.I.I.T.E.T.	220.35	51.68	225.09	52.50
5	T.T.T.C.	158.40	36.28	158.41	36.29
Average		183.57	36.28	185.48	36.45

Sources: college records

This shows that the potentialities of the colleges are not fully utilized and the management of the colleges needs to be improved for better effective management.