

Analysis of Private and Social Costs of Education in Malaysia: An Overview

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Abstract

Expenditure on education is an investment because it generates future income. Educational expenses paid by households are private costs and the total expenses incurred by the public are social costs. The objective of this paper is to analyze the cost of education for each level of education. The results of the analysis show a direct relationship between costs and varying levels of education. The cost of primary education also varies by type of school. Daily expenses appear to have contributed the most in terms of private costs of education for primary and secondary schools, while fees and cost of living are the major components at the tertiary level. The total of private costs for examination class, particularly Form Three and Five, were higher due to the willingness of parents to pay for their tuition fees. Meanwhile, the financial constitution at the higher level of education involving first year students is at its highest peak because various initial requirements involving fees are needed to proceed with their studies. The cost of private education for 17 years of schooling is almost MYR120,000 per student while the social costs have increased to almost five-fold in the last decade. However, the findings of this analysis should be interpreted with caution because the data are cross-sectional and forgone earning is not included. A further research can be carried out by using panel data and larger sample.

Keywords: Private Costs, Social Costs, Educational Funding, Education And Costs, Educational Expenses, Investment

INTRODUCTION

The use of time and money in education is an investment. Employment and better income in the future is a main incentive to postpone consumption and income. Many people believe that a higher level of education is associated with better chances to get a good job in the labor market. At the macro level, benefits to reduce state spending for other sectors with the aim to increase the education sector spending are revenue through taxation later. Indeed, an increase in demand for highly educated labor will increase returns to individuals and governments. Hence, more investments in education and training to enhance knowledge, creativity, and English communication skills are needed (Majlis Tindakan Ekonomi Negara, 2010). This is a strategic plan to reduce shortage of workers' basic skills and ability to perform the work

required by employers (Noorah & Zakiyah, 2015). An understanding of costs, investment and education returns is very important to policy planners in determining access to education, taxation and advanced education for individuals (OECD, 2015). Cost analysis of education expenses should be carried out frequently because educational spending is not only consumption but an investment as it is able to generate future income (Woodhall, 1987, p. 21; Blaug 1973; Blundell et al. 1996; Harmon, Oosterbeek & Walker 2003; Chevalier & Lydon 2001). In fact, educational funding is a part of education and social policy that is subject to limited resources in the communities (Levin, 1995). Every society has always tried its best to provide the school system with its own financial resources. In reality, education requires a huge amount of financial resources incurred by public funds. Therefore, it is essential to be distributed prudently so that the objectives of developing countries can be achieved (Benson, 1995). For example, OECD countries spend about USD9313 for each student per year at primary school, USD9014 and USD13528 for secondary and tertiary education respectively. However, educational expenditure does not solely depend on students' enrollment. In some countries, education expenditure has been given a priority to tertiary level while others provided a bigger chunk of the education budget at the primary level. Obviously, educational expenditure is influenced by instructors' wages, pensioners system, number of hours of teaching, students' enrollment and teaching and learning materials. In Malaysia, allocation for educational development and managerial expenditure was more than 45% of the total social expenditure in the Eighth (8th MP) and Ninth Malaysia Plan (9th MP). Total education development expenditure at the primary level was MYR5,369.30 (11.5%) and MYR4,837 million (10.3%) for 8th MP and 9th MP correspondingly. The annual budget shows that more than 60% of the allocation for the social sector has gone to education and training. The costs incurred by the government for each student at the primary and secondary level was MYR958 and MYR1,410 per year, respectively (Department of Statistic, 2015). In addition to the costs incurred by the government, most of the cost of education, namely direct costs such as school fees, uniforms, textbooks, stationery, and transportation as well as indirect costs have been paid by the households (Tsang, 1995). The private cost of education (paid by individuals) varies according to the location of the school, level and field of study (MoE, 1998). The cost per student at primary school is half of the cost of secondary students. Meanwhile, cost per student at boarding school was five times higher than those at the national secondary school. In addition, education expenditure in urban area is 50% higher than its rural counterpart (MoE, 1996).

Private cost of education is an economic burden to the household and could be measured by a ratio to household income (Levin, 1995; Tsang, 1995). Thus, basic understanding for 'school financing' is very important. This is due to the fact that the process to determine how much, where the resources are, and who's to bear the costs (Carnoy, 1995) is complicated. Basically, direct and indirect private costs have been funded by households continuously as long as the students remain at school, college or university. In this country, years of education to complete up to the degree level will take at least 17 years of schooling. So, how much does the student or household need to pay for a private cost of education? Most of the previous studies reported education expenses by local authority or government rather than households. One of the main reasons for the lack of education cost analysis by households or individuals is due to

the length of schooling period. Longitudinal study is more useful but requires an alteration of many factors such as economic fluctuation, inflation and education policy change. Alternatively, cross section data could provide some good information about private cost in education and can be added in schooling financing literature.

PRIVATE COSTS AND SOCIAL COSTS OF EDUCATION

Cost of education analysis categorizes the input of education into five categories, namely, the cost of personnel, facilities, materials and tools, program costs and other input costs (Levin & McEwan, 2001). According to Levin and McEwan (2003), personnel costs are the costs for human resources in education including those who serve full-time, part-time and voluntary. It involves the role, qualifications and time spent in the provision of education. Input time also covers the use of the time involved in education programs. Meanwhile, input costs for facilities are expenses for building, facilities and the space used for education programs. Costs of materials include expenses for computers, printed materials, books, stationaries and references. Cost of inputs varies according to the level of education. The cost at higher education may be higher than at the school level. Tuition fees are one of the new costs at higher level of education set by universities. Furthermore, students must spend on new sets of equipment - the basic requirement in their studies such as uniforms, laboratory or workshop attires, as well as special equipment according to the course and type of study. Computer, communication and entertainment devices are new items that are not on the list of disbursement in primary or secondary schools. Cost of transportation at schooling level refers to the daily journey to school. In higher education, it refers to the transportation from home to college or university, and from dormitory or college of residence to university. Living expenses is part of private cost incurred during their stay in college or university for higher education. Private education costs also include cost of particular programs and other costs. Thus, one can summarize a private cost of education using a simple notation,

$$TC = C_y + C_m M_i + C_d D_i$$

where,

TC - a total private cost in year i

C_y - an annual private cost

$C_m M_i$ - a monthly private cost (is number of month)

$C_d D_i$ - daily private cost and refer to number of schooling day

Private cost of education can be estimated by using a simple equation. However, the length of education completed varies among people. A data collection about education expenditure for entire life of schooling becomes complex and difficult. But for the purpose of understanding a concept of private and social costs we used cross sectional data to estimate cost for each level

of education. Estimating cost using cross sectional data is lower compared to longitudinal study because it does not include inflation, education policy change and cost related to time change. Furthermore, it is important in the initial step of understanding financial education. In this study, data was collected by interactive survey method where the first part of survey measured educational expenditure and the second part of survey collected demographical information of the respondents. Meanwhile, social cost of education was estimated by using the government expenditure divided by the number of enrolment for each level of education. We offered more than 2000 students and parents to report their expenses on schooling. The final figure of those involved in this study was 2016 including parents and students. 60 percent of this number came from primary school's parents. 300 secondary school students who participated were assisted by their parents to complete this survey. For the pre and university costing, we received more than 400 respondents who volunteered to spend their time to fill our survey form. All university students in this study were undergraduate students.

PRIMARY AND SECONDARY SCHOOL PRIVATE COST

Primary and secondary private costs of education are shown in Table 1. The items of private cost consist of school fees (including contribution), books and stationaries, transportation, tuition fees and daily expenses. Tuition fees (outside school), transportation and daily expenses are the highest share of a private cost. A daily expense was the highest cost of education at primary schools.

Table 1. Cost by Item at Primary and Secondary School (MYR per year)

Item	Primary School				Secondary School
	NS ^a	NST(C) ^b	NST(T) ^c	Mean (%)	Mean (%)
Fee (PTA and Insurance)	39.0	27.5	45.5	37.33 (2.04)	22.20 (1.26)
School needs/apparatus	223.6	178.9	168.4	190.30 (10.40)	261.50 (14.81)
Book and stationaries	146.8	186.9	113.4	149.30 (8.15)	137.70 (7.80)
Tuition/Computer	220.1	758.7	281.6	420.13 (22.96)	180.90 (10.24)
Transportation	405.0	457.0	471.4	444.47 (24.29)	443.30 (25.10)
Daily expenses	439.1	874.7	428.4	580.73 (31.74)	666.30 (37.73)
Co-curriculum	4.6	8.8	9.6	7.67 (0.42)	54.30 (3.07)
Total	1478.2	2492.6	1518.8	1829.67 (100)	1766.20 (100)

Note: ^a National School; ^b National School Type (Chinese); ^c National School Type (Tamil)

The total of private cost for primary school per student was MYR1829.67 per year. This figure does not differ much from that reported by Osman Rani (2007) a decade ago, which was about MYR1780.00. A small increase in primary school cost (about 3 percent) was subsidized by an elimination of school fees by the Ministry of Education. The highest average of private cost at primary schools as shown in Table 1 appears to be for National Primary School Type as compared to National Primary School. Tuition and daily expenses almost double at Chinese Primary School compared to National Primary School. The Ministry of Education (1996) also found a significant difference in private cost between location and type of school. The table shows that daily expenses was the highest share paid by parents, at about 31.7%, followed by cost of transportation and tuition/computers fee which were 24.9 and 22.8 percent respectively. Parents paid an average of MYR2.00 per day (or MYR400 per school academic year) for daily expenses and MYR420.13 for tuition and computer fees. A higher cost paid by parents indicates their positive attitude and commitment towards students' achievement. The other important components for school costs consist of school fees or contribution, uniforms, reference books, and stationaries. All these items covered about 11 percent of total school financing for primary education. The last column on Table 1 shows educational cost at secondary school. Indeed, daily expenses (pocket money) remain the highest component which was about MYR666.30 per year or 38 percent of a total private cost. It was followed by transportation cost, i.e. MYR443.30 or about 25 percent. Meanwhile, educational equipment cost for secondary school was MYR261.50 (14.81%) per year. Average expenditure for tuition and computers' fee was MYR180.90. In addition, parents also spent on reference books, stationaries, and other materials for their children. School expenditure by parent on Parent Teacher Association fees and noncurricular activities were MYR22.00 and MYR54.30 per year.

Private costs based on year of education are shown in Table 2 below. Private cost for first year primary student at the time of survey was MYR1547.64 and increased gradually along the years of schooling. On average, cost per year for primary education was about MYR1815.52 per student. Therefore, private cost for six years at primary school was MYR10893.12. If we consider inflation, the cost will be much higher than this estimation. Table 2 indicates that the private cost of secondary school was MYR2242.00, MYR2664.00 and MYR4368.00 per year for Form One, Two and Three students respectively. Meanwhile, the costs for Form Four and Form Five students were MYR3311.00 and MYR5210.00 respectively. On average, private cost of schooling per student at secondary level was MYR3559.00 per year. The highest cost at secondary school occurred at Form Three and Five due to tuition fees required in preparing students for public assessments at the end of both academic years.

Table 2. Private Cost of Education by School Type and Year of Schooling (MYR)

Year/Form	School Type			
	NC	NTC(C)	NTS(I)	Mean
One	1208.06 (404.76)	1928.32 (500.26)	1529.42 (776.77)	1547.64
Two	1299.27 (467.94)	2557.29 (669.75)	1466.14 (412.36)	1748.06
Three	1303.60 (591.57)	2542.35 (834.84)	1354.59 (469.66)	1737.65
Four	1589.76 (682.13)	2569.99 (810.68)	1545.33 (520.07)	1887.69
Five	1685.69 (600.74)	2494.44 (782.41)	1615.33 (651.54)	1913.81
Six	1744.31 (517.50)	2787.70 (714.42)	1601.26 (563.36)	2058.25
Average	1478.24 (588.41)	2492.56 (771.41)	1518.77 (578.68)	1815.52
Form One				2,242.00
Form Two				2,664.00
Form Three				4,368.00
Form Four				3,311.00
Form Five				5,210.00
Average				3,559.00

HIGHER EDUCATION

Education cost for higher learning is shown in Table 3 below. The total cost for pre-university was about MYR11996.16. This figure, however, did not include tuition fees and accommodation both of which were paid by the students’ sponsor. Hence, the real cost paid by students or their parents were relatively low. The highest private cost component spent by them was computer and related items, which represented almost 24 percent (MYR2870) of the total expenditure. It was followed by daily expenses at 20.5 percent. This expenditure covered cost of food and clothes. Other items of private cost are social and community services, reference books and stationaries which covered around 12 and 13 percent, respectively. The total private cost of international pre-university study per student in our survey was MYR23992.00. This figure may increase to more than double if tuition and accommodation were included.

Table 3. Private Cost for Higher Education by Item (MYR per year)

Year	Pre-university (%)	University					Total (%)
		One	Two	Three	Four		
Fees and Insurance	334.32 (2.79)	5577.65	2361.81	2239.88	3066.24	13245.58 (20.65)	
Accommodation	-	1279.8	1454.75	1264.4	1982	5980.95 (9.33)	
Equipment	350.28 (2.92)	1978.95	1309.95	1151.9	1461.37	5902.17 (9.20)	
Stationaries and references	1409.64 (11.75)	1074.33	713.85	771.3	1140.6	3700.08 (5.77)	
Computer and electronics	2869.68 (23.92)	1474.84	1083.27	349.55	2449.08	5356.74 (8.35)	
Transportation	583.44 (4.86)	1530.24	1240.08	1930.2	1371.12	6071.64 (9.47)	
Pocket money (Daily expenses)	2405.52 (20.05)	4130.4	3655.46	2837.1	3266.67	13889.63 (21.66)	
Noncurricular activities	233.40 (1.95)	700.25	972.2	249.35	509.63	2431.43 (3.79)	
Community and course activities	1559.16 (13.00)	400.03	198.67	176.53	401.7	1176.93 (1.84)	
Communications	879.48 (7.33)	636.7	717.35	1029.2	842.75	3226.00 (5.03)	
Entertainment, sport and recreation.	666.00 (5.55)	731.8	440.65	474.45	511.96	2158.86 (3.37)	
Medication and contingency	705.24 (5.88)	351.95	167.35	191.6	280.24	991.14 (1.55)	
Total	11996.16	19866.9	14315.3	12665.4	17283.3	64131.1	
		2	9	6	6	3	

The increasing cost in education occurs everywhere. In China for example, most of the household income was spent on education (Zhang & Soukup, 2016) whereby 52 percent was set aside for higher education (Don & Wan, 2012). In our case, private cost of higher education is greater than wages of middle income groups. Therefore, public funding is very important to support educational expenditure for middle and lower income households.

The structure of education cost at higher level is different compared to primary and secondary school. Accommodation and living expenses are significant factors contributing to

the private cost. In addition, students also need to pay for computer, communication and related items. The structure cost also differs and is more complex, in which it could be categorized by daily, monthly and annually expenditure. In our case, the daily cost was considered by the total number of days that students spent in their higher institution – approximately 150 days (or five months) per semester. Only two semesters were calculated for one academic year. In Table 3, the highest cost occurred at the first year which was MYR5577.65 and followed by the final year of education (MYR3066.24). The total fee for eight semesters at public universities was about MYR13245.58, with the highest fee paid by first year students. In the meantime, an average cost for daily food and beverage was MYR13.15 per day or MYR1736.20 and MYR3472.25 per semester and per year, respectively. This cost contributes to 50 percent of the total private cost at higher learning institution. Items for monthly cost include accommodation, communication, internet, medication, attire, transportation, and others. On average, students spent about MYR3151.35 per semester or MYR630 per month. The cost per student for learning resources such as books, reference materials, papers, stationaries, course activities and related items for learning was MYR3700. This cost was higher at the final year of study because of industrial training and final year project. An average private cost of education at university level was highest at the first year (MYR19866.92) and followed by the final year (MYR17283.36).

How do students finance their education? There are two sources of funding – family or self-funding and education loan or a scholarship. In this study, 50 percent of students were funded by loans and scholarships. The majority of them (60.5%) claimed that the loan given was insufficient to support the cost of their study. The living cost kept on increasing due to the price hike of food and beverages. In addition, students needed to spend on various compulsory course materials, projects and activities.

TOTAL PRIVATE COST

The total private cost of education is shown in Table 4 below. The total cost for 13 years at school and four years at higher education was MYR116,811.55. However, this estimation should be interpreted with caution due to several reasons. First, this study used a cross section data which could under estimate the private cost. Costs may rise 30 to 40 percent higher if we considered inflation rate of between 1.5 and 2.5 percent per year. Second, the sample size only covered a small portion of students or parents. Third, the cost of pre-university and university courses may differ according to area of study. Indeed, the most important indicator this estimation has been given us an idea of how much we need to pay to complete one cycle of education. Therefore, it is vital to make some planning for future educational costs.

Table 4. Total Private Cost of Education (MYR)

Level of schooling/education	Total Cost (%)	
Primary (6 years)	10,893.10 (9.33)	
<i>One</i>	1,547.64	
<i>Two</i>	1,748.06	
<i>Three</i>	1,737.65	
<i>Four</i>	1,887.69	
<i>Five</i>	1,913.81	
<i>Six</i>	2,058.25	
Secondary (5 years)	17,795.00 (15.23)	
<i>One</i>	2,242.00	
<i>Two</i>	2,664.00	
<i>Three</i>	4,368.00	
<i>Four</i>	3,311.00	
<i>Five</i>	5,210.00	
Pre-university (2 years)	23,992.32 (20.54)	
<i>One</i>	11,996.16	
<i>Two</i>	11,996.16	
University (4 years)	64,131.13 (54.90)	
<i>Year One</i>	19,866.92	
<i>Year Two</i>	14,315.39	
<i>Year Three</i>	12,665.46	
<i>Year Four</i>	17,283.36	
Total Private Cost	116,811.55 (100)	SOCIAL COST

Table 5 below shows the education spending compared to overall expenditure and social costs (current cost). Expenditure on education is around 15 to 20 per cent compared with the total federal spending. In the early 1980s, the share of expenditure on education is only about 12 to 15 percent, but in 1990 the expenditure on education increased by 20 percent. However, after 2005, the percentage of education spending compared with federal expenditure has been below 20 per cent per annum.

Table 5. Social Education Cost

Year	Total Educational Cost (RM)	Total Federal Expenditure		Gross National Income (GNI) Market price		*Current Cost per Student (RM)	
		RM	%	RM	%	Primary	Middle
1980	2,574,677,220.00	20,724,348,256.00	12.42	51,390,000,000.00	5.01	610.86	0.00
1981	3,099,067,160.00	23,077,122,809.00	13.43	55,602,000,000.00	5.57	809.27	0.00
1982	4,122,867,220.00	31,951,016,095.00	12.90	59,690,000,000.00	6.91	838.11	0.00
1983	3,926,896,000.00	28,749,017,033.00	13.66	65,154,000,000.00	6.03	854.91	0.00
1984	3,926,930,000.00	27,691,802,690.00	14.18	74,182,000,000.00	5.29	n.a	n.a
1985	4,493,205,450.00	29,191,096,194.00	15.39	71,838,000,000.00	6.25	n.a	n.a
1986	5,023,424,380.00	30,811,911,490.00	16.30	65,851,000,000.00	7.63	642.95	963.80
1987	4,820,664,790.00	27,411,630,230.00	17.59	69,757,000,000.00	6.91	635.68	959.12
1988	4,895,728,050.00	28,121,399,000.00	17.41	81,482,000,000.00	6.01	615.21	979.24
1989	5,289,140,700.00	30,164,326,960.00	17.53	95,150,000,000.00	5.56	624.93	1027.32
1990	6,032,528,460.00	33,005,000,000.00	18.28	10,211,100,000.00	5.91	654.54	1137.38
1991	6,269,962,840.00	38,473,900,000.00	16.30	12,323,200,000.00	5.09	744.83	1334.92
1992	8,239,200,000.00	45,446,700,000.00	18.13	14,054,700,000.00	5.86	863.84	1532.92
1993	8,525,411,610.00	44,144,837,530.00	19.31	159,043,000,000.00	5.36	959.80	1661.97
1994	8,954,979,220.00	47,135,086,560.00	19.00	178,090,000,000.00	5.03	921.15	1576.23
1995	9,734,107,320.00	48,797,932,300.00	19.95	202,389,000,000.00	4.81	886.75	1491.35
1996	10,846,486,650.00	55,467,290,400.00	19.55	227,368,000,000.00	4.77	934.15	1419.22
1997	12,031,102,900.00	59,982,209,600.00	20.06	262,193,000,000.00	4.59	963.64	1342.40
1998	12,510,391,200.00	64,124,392,000.00	19.51	269,137,000,000.00	4.65	1018.01	1510.04
1999	13,462,340,030.00	65,095,213,400.00	20.68	280,932,000,000.00	4.79	1160.62	1530.58
2000	14,079,737,820.00	78,025,291,600.00	18.05	295,843,000,000.00	4.76	1177.40	1178.41
2001	18,601,959,600.00	91,046,791,410.00	20.43	326,071,000,000.00	5.70	1275.44	1594.87

2002	20,719,036,710.00	100,518,506,120.00	20.61	327,713,000,000.00	6.32	1450.13	2042.45
2003	26,194,824,940.00	109,801,554,460.00	23.86	353,134,000,000.00	7.42	1516.66	2164.83
2004	23,937,604,060.00	112,490,000,000.00	21.28	382,529,000,000.00	6.26	1864.49	2466.28
2005	16,719,469,500.00	117,444,984,600.00	14.24	436,157,000,000.00	3.83	1863.67	2438.94
2006	19,784,645,200.00	136,748,522,510.00	14.47	506,015,000,000.00	3.91	n.a	n.a
2007	22,139,790,900.00	159,496,147,000.00	13.88	575,230,000,000.00	3.85	2111.82	2707.35
2008	29,538,961,000.00	176,917,420,000.00	16.70	661,729,000,000.00	4.46	2253.08	2800.82
2009	31,403,895,000.00	207,898,948,000.00	15.11	773,743,000,000.00	4.06	3643.87	4154.11
2010	30,519,112,700.00	191,498,805,000.00	15.94	712,123,000,000.00	4.29	3702.67	4082.57
2011	35,762,962,700.00	213,967,217,000.00	16.71	806,140,000,000.00	4.44	4285.31	4524.20
2012	37,280,783,100.00	232,832,900,000.00	16.01	905,899,000,000.00	4.01	5164.15	5505.96
2013	36,944,533,745.37	201,917,000,000.00	18.30	952,607,000,000.00	3.88	5313.27	5546.17

Source: Educational Statistics Book, various year

Note: * calculated by authors

n.a – data not available

Table 5 shows that educational expenditure compared to the national income (on market price) has been between 5 to 6 percent, except after 2005 in which the percentage was between 3 to 4 percent. The seventh and eighth columns in Table 5 show the current costs (costs incurred by the government or society or social costs) for all students, whether in primary or secondary schools from 1980. Social costs or current costs are calculated using the government expenditure divided by the number of students at a particular year. The social cost of primary and secondary school students increased significantly, from RM610.00 in 1980 to more than RM5,000.00 in 2013 for the primary school category. While the cost per student for secondary school category increased almost five-fold as shown in Table 5 above.

CONCLUSION

Private costs for all types of schools increased in line with the increase in the level of education of a person. The findings of the analysis showed that the cost of private primary schools varies according to the type of school. The abolition of school fees is not a significant reduction in the economic burden of financing education. Based on the items of cost involved, it clearly shows that the cost of private education fees to be borne by the parents remains higher. Indeed, parents' commitment in education investment has been shown by their willingness to spend more on tuition fees to ensure their children's achievement in National Examinations at Form

Three and Form Five. However, this analysis does not take into account the costs incurred by the parents of other education, especially religious education. Previous research indicates that there are many factors associated with the process and the cost of education (Kainuma & Najeema, 2013). Indirectly, the economic burden to be borne by the parents also determine the length and the level of schooling of their children (Guo and Zhang 2008; Yi et al, 2012). The results of the analysis of the cost of education at the university level indicate that the financial resources of education loans or scholarships were insufficient to cover the cost. Thus, some students resort to taking up part-time jobs or seeking additional financial assistance from parents to bear the cost. Moreover, the cost of education for the first and second semesters is much higher than other semesters. This is due to the need to acquire basic long-term necessities such as laptop, printer, course materials and a variety of fees. Fees and living expenses are the main components of overall student expenditure. In fact, for city-campus universities, the cost of living is much higher. However, this analysis using cross-sectional data is not sufficient to reflect the cost of education from primary school up to university level comprehensively. Therefore, further studies with time-series data or panel data using a larger sample is needed to examine the cost of private education in the country.

References

- Benson, C. (1995). Education Financing. In Carnoy, M. (Ed.), *International Encyclopedia of Education (IEE)*, pp 408-412. Cambridge: Cambridge University Press.
- Blaug, M., (1973). *Education and the Employment Problem in Developing Countries*. Geneva: International Labour Office.
- Blundell, R., Dearden, L., & Meghir, C. (1996). *The Determinants and Effect of Work Related Training in Britain*. London: Institute of Fiscal Studies.
- Chevalier, A., & Lyden, R. (2001). 'Estimates of the Effect of Education on Job Satisfaction', University of Warwick, Mimeo.
- Carnoy, M. (1995). Education and Productivity. In Carnoy, M. (Ed.), *International Encyclopedia of Education (IEE)*, pp 125-130. Cambridge: Cambridge University Press.
- Dong, H.Y., & Wan, X.H. (2012). Higher education tuition and fees in China: Implications and impacts on affordability and educational equity. *Current Issues in Education*, 15 (1), 1-10.
- Harmon, C., Oosterbeek, H., & Walker, I. (2003). The Returns to Education: Microeconomics. *Journal of Economic Surveys*, 17(2), 0115-0141.
- Jabatan Perangkaan Malaysia (2015). *Buku Perangkaan Malaysia 2015*. Kuala Lumpur: Jabatan Perangkaan Malaysia.
- Kainuma, A., & Najeema, M. 2013. Influence of Socio-Economic and Educational Background of Parents on their Children's Education in Nigeria. *International Journal of Scientific and Research Publications*, 3(10), 1-7.
- Kementerian Pendidikan Malaysia. (1996). *Cost Analysis In The Malaysian Education System*. Kuala Lumpur: Bahagian Perancangan dan Penyelidikan Dasar Pendidikan (BPPDP), Kementerian Pendidikan Malaysia.
- Kementerian Pendidikan Malaysia. (1998). *Kajian Analisis Kos - Sekolah Menengah Teknik*

- dan Vokasional*. Kuala Lumpur: Bahagian Perancangan dan Penyelidikan Dasar Pendidikan (BPPDP), Kementerian Pendidikan Malaysia.
- Kementerian Pendidikan Malaysia. (Pelbagai Tahun). *Buku Perangkaan Pendidikan*. Kuala Lumpur: Bahagian Perancangan dan Penyelidikan Dasar Pendidikan (BPPDP), Kementerian Pendidikan Malaysia.
- Levin, H. (1995). School Finance. In Carnoy, M. (Ed.), *International Encyclopedia of Economics of Education (IEE)*, pp 412-419. Cambridge: Cambridge University Press.
- Lewin, H. M., & McEvan, P. J. (2001). *Cost-effectiveness Analysis: Method and Applications*, 2nd eds. California: Sage Publications, Inc.
- Lewin, H. M., & McEvan, P. J. (2003). Cost-Effectiveness Analysis as an Evaluation Tool. In Kellaghan, T., Stufflebeam, D. L., and Wingate, L. A. (Eds.), *International Handbook of Educational Evaluation*, pp. 125-152. Dordrecht, Netherland: Kluwer Academic Publishers
- OECD. (2013). *Education at a Glance 2013:OECD Indicators*, OECD Publishing. <http://dx.doi.org/10.1787/eag-2013-en>.
- OECD. (2015). *Education at a Glance 2015: OECD Indicators*, OECD Publishing. <http://dx.doi.org/10.1787/eag-2015-en>.
- Osman Rani, H. (2007). The Cost of Schooling: Does it Matter? *Jurnal Bitara UPSI Pendidikan*, 85 - 97.
- Malaysia. (2006). *The Ninth Malaysia Plan 2006-2010*. Putra Jaya: Unit Perancang Ekonomi.
- Malaysia. (1996). *The Seventh Malaysian Plan 1995-2000*. Kuala Lumpur: Percetakan Nasional Malaysia Berhad.
- Majlis Penasihat Ekonomi Negara (MPEN). (2010). *Model Baru Ekonomi untuk Malaysia*. Putrajaya: National Economic Advisory Council.
- Noorah, Y., & Zakiah, J. 2015. Graduate employability and preparedness: A case study of University of Malaysia Perlis (UNIMAP), Malaysia. *Malaysian Journal of Society and Space, GEOGRAFIA Online*, 11(11), 129 - 143.
- Tsang, M. (1995). Private and Public Cost of Education in Developing Nations. In Carnoy, M. (Ed). *International Encyclopedia of Education (IEE)*. 2nd Eds, pp. 393-398. Cambridge: Cambridge University Press.
- Woodhall, M., 1987, 'Economics of Education: A Review', in G. Psacharopoulos (ed.), *Economics of Education: Research and Studies*. Pergamon Press, Headington Hill Hall, England.
- Yi, H., Zhang, L., Luo, R., Shi, Y, Mo, D., & Chen. (2012). Dropping out: Why are students leaving junior high in China's poor rural areas? *International Journal of Educational Development*, 32, 555-563
- Zhang, S., & Greg J. Soukup, J. (2016). A Study of Rural Chinese Students' Educational Expenses, Academic Performance, and Extracurricular Activities. *Journal of Chinese Economics*, 4(1), pp. 13-28, retrieved from <http://journals.sfu.ca/nwchp/index.php/journal>.

Zhao, M., Glewwe, P., 2010. What determines basic school attainment in developing countries? Evidence from rural China. *Economics of Education Review*, 29, 451–460.

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