

MPF 1353

Economics and Education

# INVESTMENT IN EDUCATION

Latha a/p Haridass

Siti Nur Atikah Bt Nazari

Zainudin bin Hassan

# OUTLINE

INVESTMENT VS EDUCATION  
EDUCATION COST ANALYSIS  
INVESTMENT – PRIMARY, SECONDARY, TERTIARY  
INVESTMENT ANALYSIS  
RATE OF RETURN INVESTMENT IN EDUCATION



# INVESTMENT

- Application of money for earning more money. Investment also means savings or savings made through delayed consumption.
- Economics View -Utilization of resources in order to increase income or production output in the future.

*(Source: FINANCE MAPS OF WORLD.COM)*

# EDUCATION

- General sense is a form of learning in which knowledge, skills, and habits of a group of people are transferred from one generation to the next through teaching, training, research, or simply through autodidacticism.
- Occurs through any experience that has a formative effect on the way one thinks, feels, or acts.

# EDUCATION

- Formal
- Informal
- Life Long Learning



# INVESTMENT IN EDUCATION

- PRIVATE RETURN – helpful in assessing whether it is efficient to opt for extra education.
- SOCIAL RETURN – provides an instrument in determining the relative value in providing extra funds to education.

# INVESTMENT IN EDUCATION

- • Increase enrolment for child age of 4+ and 5+ to 87% by 2012 for Pre-School.
- New Educational Policy by Empowering Bahasa Malaysia, strengthening English Language (MBMMBI)
- Implementation of KSPK, KSSR, KSSM (by 2016)
- One Child One Sport Policy
- Free Primary, Secondary Education In Government Schools From 2012
- RM200 Book Voucher for Tertiary Students 2012
- RM250 Book Voucher for Tertiary Students 2013

# BUDGET ALLOCATION IN EDUCATION

- RM50.2 billion in 2012.
- 2013
- RM 1 billion to upgrade schools.
- RM38.7 billion to improve quality of education.
- RM1.2billion for pre-school development.
- RM200 million to establish the Graduate Employability Taskforce
- RM440mil to the Skills Development Fund Corporation (PTPK)

SOURCE : BUDGET 2013



# CURRENT INVESTMENT OF EDUCATION IN PRIVATE SECTOR

- **RM95.5bil committed investments in Iskandar, RM41.35bil realised**
- **Building of International School, Private Universities : Newcastle, Pinewood, Maritime Institute to promote knowledge based society.**

**Source : 07 August 2012 , Star Property**

# EDUCATION COST ANALYSIS

- Cost analysis can contribute significantly to decision-making, planning, and monitoring in education.

# **THE RATE OF RETURN TO INVESTMENT IN EDUCATION: A CASE STUDY OF POLYTECHNIC DIPLOMA GRADUATES**

by

**SAHARAWATI BINTI SHAHAR**

**Master of Arts**

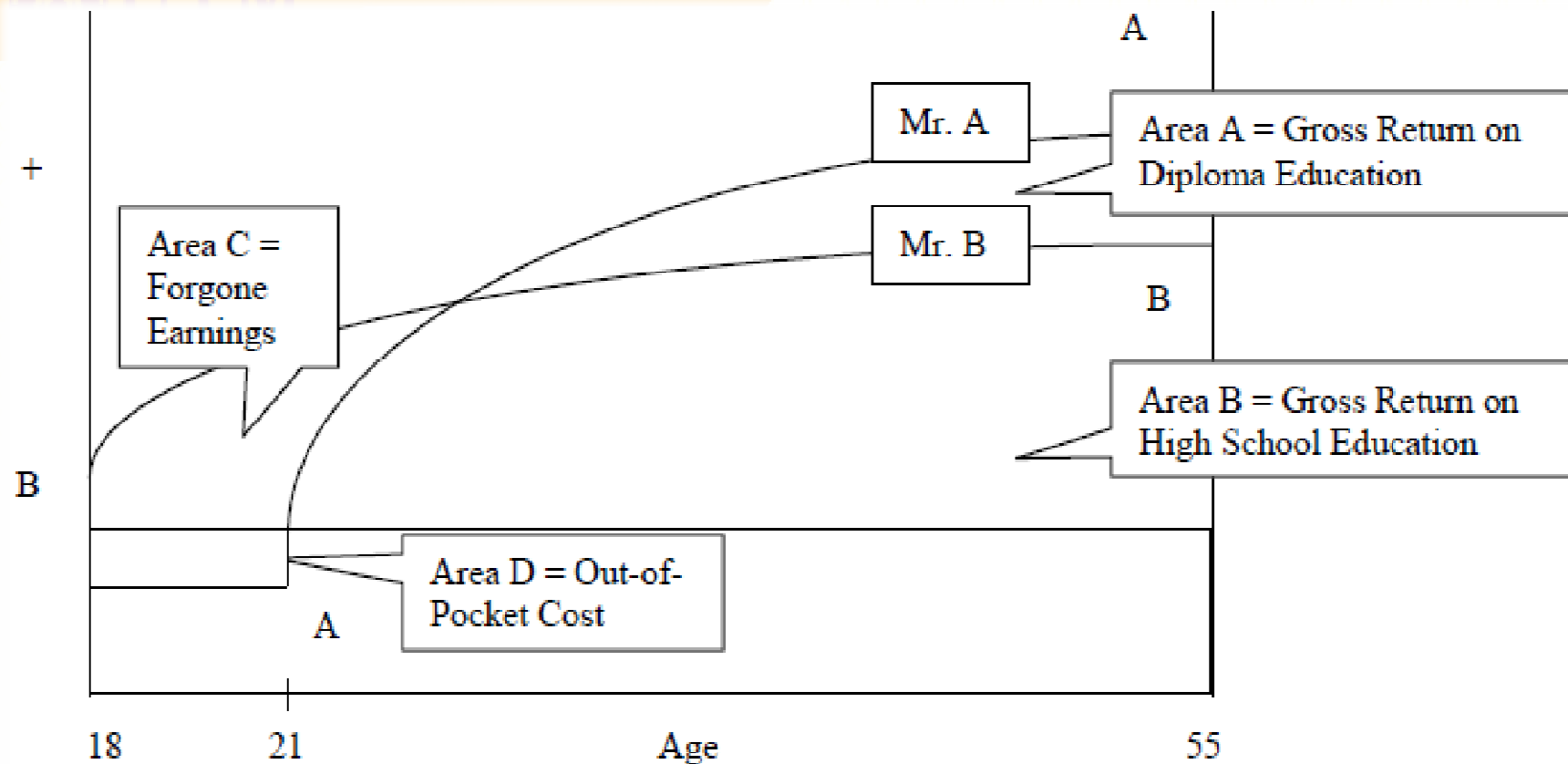
**UNIVERSITI SAINS MALAYSIA**

**MARCH 2008**





# RATE OF RETURN INVESTMENT IN EDUCATION



**Figure 1.1 Age-income Profile for High School and Diploma Graduates**

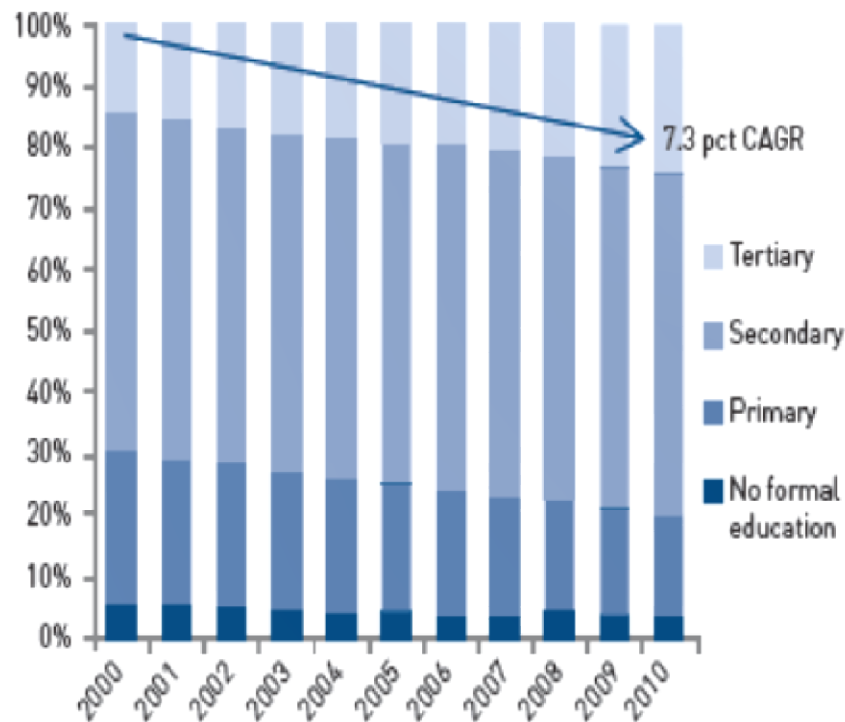
- AA* = Income profile for Mr. A when entering work after diploma education
- BB* = Income profile for Mr. B when entering work after high school education
- Area A* = Gross return on High School Education
- Area B* = Gross return on Diploma Education
- Area C* = Foregone earnings
- Area D* = Out-of-pocket costs

	M	F	Total
Preschool	94,338	91,960	186,298
Primary	1,441,522	1,362,883	2,804,405
Secondary	1,139,198	1,142,577	2,281,775
Total	2,675,058	2,597,420	5,272,478

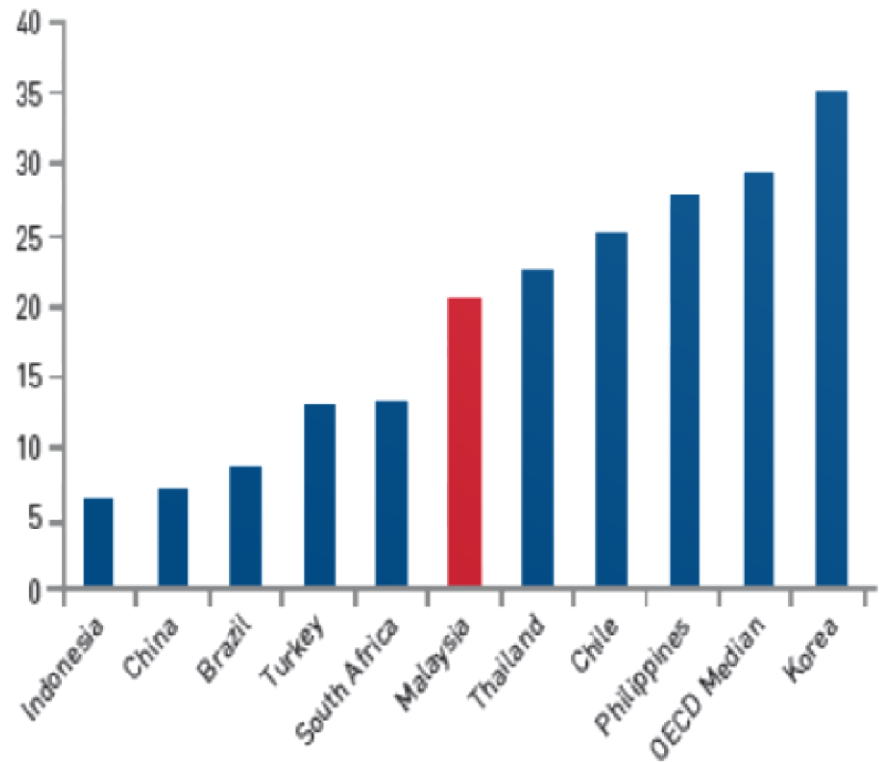
Primary	Secondary	Total
7,723	2,296	10,019

**Figure 3.13 The share of university graduates in the labour force increased rapidly in the past decade, but remains below that of advanced economies and even some regional peers**

Labor force composition by highest level of education

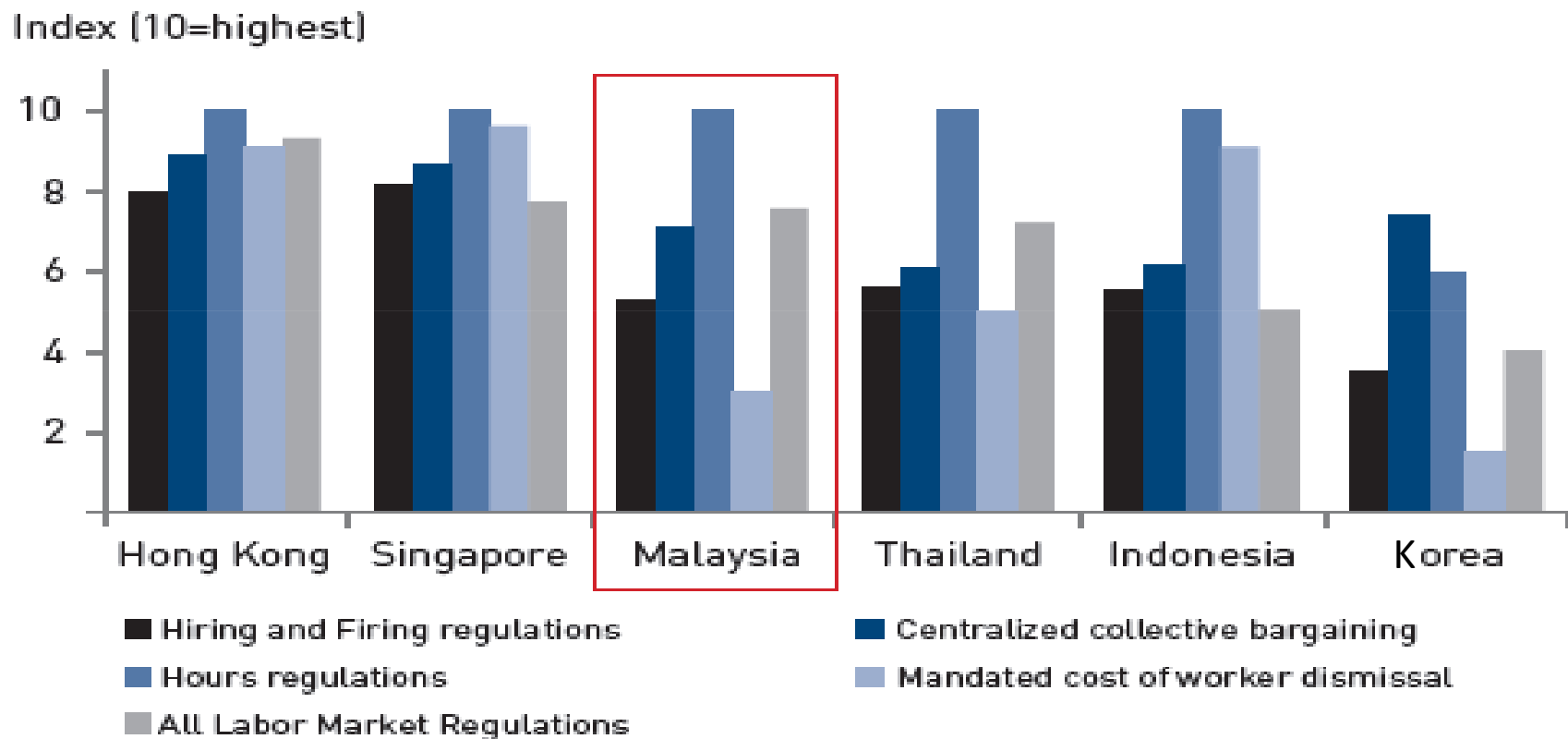


Tertiary-educated workers in the labor force in 2005-2007 (percent)



Source: World Bank, Malaysian Economic Monitor, "Modern Jobs", 2012

**Figure 3.16 Malaysia ranks low in the region in terms of labour market flexibility**



Source: World Bank, *Malaysian Economic Monitor*, "Modern Jobs", 2012



# WORKFORCE IN MALAYSIA

- SOURCE : DEPARTMENT OF STATISTICS, MALAYSIA



# NUMBER OF EMPLOYED PERSON BASED ON EDUCATIONAL ATTAINMENT

**Figure 3.5 The top 15 countries ranked in the GTI are developed countries**

		Overall Score	Demo-graphics	Compulsary education	University education	Quality of the labour force	Talent environment	Openness	Proclivity to attracting talent
	Category Weight		11.1%	11.1%	22.2%	22.2%	11.1%	11.1%	11.1%
1.	United States	74.5	39.6	81.3	82.0	89.6	100.0	34.1	71.9
2.	Denmark	65.4	15.7	85.7	59.0	94.7	93.1	54.2	32.9
3.	Finland	64.2	17.9	80.2	59.5	92.8	81.9	53.5	40.0
4.	Sweden	63.4	22.1	83.2	56.5	87.0	80.6	55.3	42.1
5.	Norway	62.3	25.7	84.7	54.4	82.9	73.6	52.5	49.7
6.	Singapore	61.9	31.7	72.3	52.6	83.1	73.6	51.7	56.0
7.	Australia	61.9	31.7	72.3	52.6	93.1	73.6	51.7	56.0
8.	Canada	61.3	31.4	76.8	45.3	85.1	73.6	52.6	56.1
9.	Switzerland	60.9	20.5	77.8	41.2	84.7	87.5	56.7	53.8
10.	Hong Kong	60.8	28.9	65.8	35.8	75.5	77.8	83.3	68.5
11.	Israel	59.9	36.4	74.5	39.6	92.2	79.2	35.9	49.4
12.	Germany	59.9	11.5	79.3	47.5	82.9	81.9	53.9	51.1
13.	Netherlands	59.4	18.9	80.6	48.9	82.4	80.6	57.6	38.4
14.	United Kingdom	59.3	24.6	77.9	49.3	74.2	95.1	53.0	45.1
15.	New Zealand	59.1	28.2	80.3	51.2	74.0	80.6	52.8	39.4
...									
39.	Malaysia	41.1	38.6	58.6	29.4	44.1	50.0	39.5	36.5

Source: Heidrick & Struggles, "The Global Talent Index Report: The Outlook to 2015", EIU 2011

**Figure 3.2 Brain drain intensity has moderated, but remains at high levels**

	1990		2000		Brain Drain Intensity	
	High-Skill at Home	High-Skill Overseas	High-Skill at Home	High-Skill Overseas	1990	2000
China	11,593	359	19,893	783	3.0%	3.7%
Hong Kong	379	182	696	292	32.5%	29.5%
Japan	17,399	233	22,128	278	1.3%	1.2%
Korea	3,083	335	7,565	613	9.8%	7.5%
Malaysia	222	79	818	96	26.2%	10.5%
Singapore	84	28	279	47	25.3%	14.4%

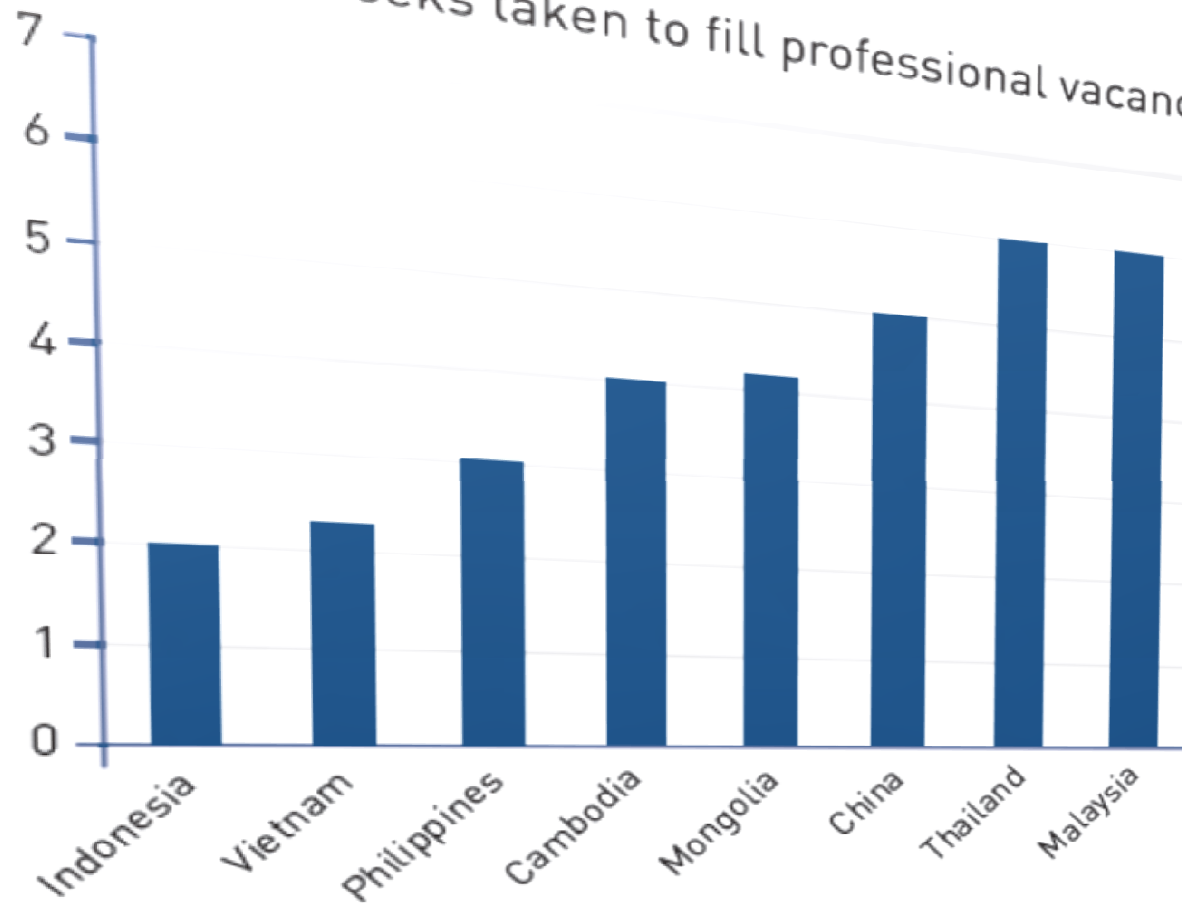
*Source: TalentCorp Analysis, 2012*





**Figure 3.11 Malaysia takes a relatively long time to fill professional vacancies**

Number of weeks taken to fill professional vacancies



Source: World Bank Data, various years



## Key points of the report are:

- **Lifetime earnings grow with education.**

The report estimates those at \$459,200 for a high school dropout and \$696,300 for a higher school graduate. The report used high school graduation as the benchmark for educational attainment. Earnings are higher for people with some college and with college degrees.

- **Lack of high school diplomas costs the state.**

A person who fails to graduate from high school imposes a fiscal burden of \$140,100 on the state, in terms of government services provided to that person minus taxes paid.

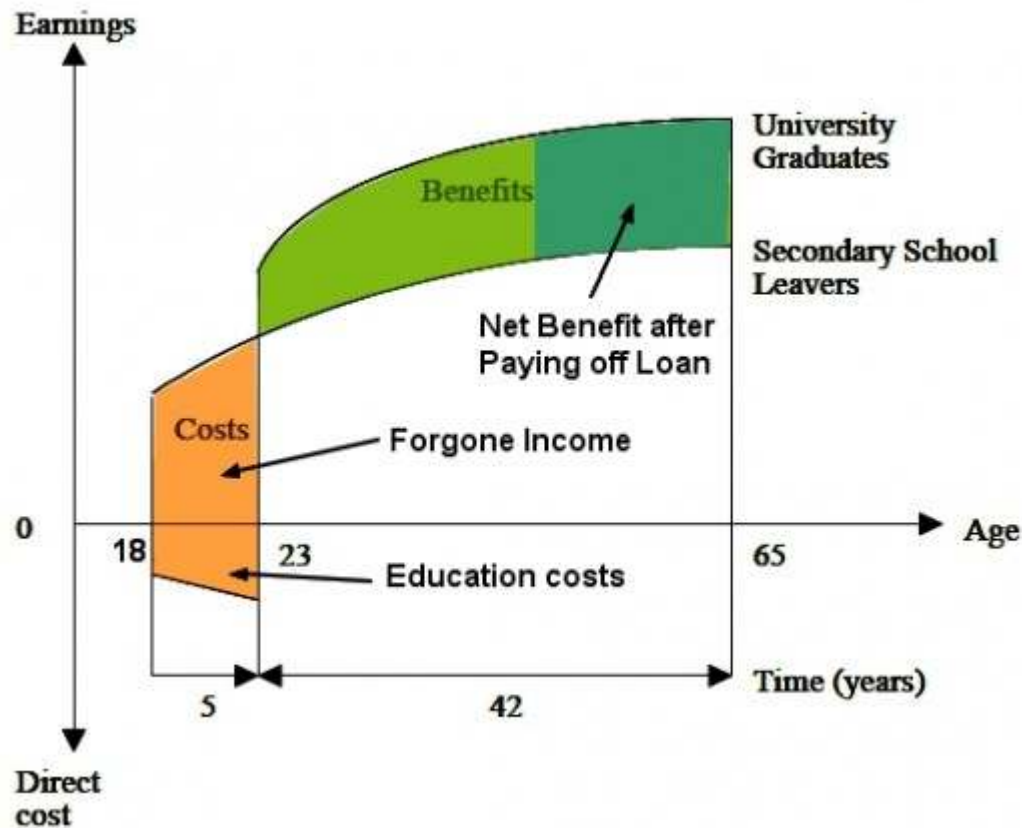


- **The broader social-burden cost of a dropout**, factoring in such things as workforce productivity, lost economic opportunities because of a badly trained workforce and costs of crime, is calculated at \$524,400.
- **The report said expanded preschool opportunities, higher teacher salaries, small class sizes and some high school reforms can increase high school graduation rates.**

“The benefits of these investments (estimated at \$74,400 per student) significantly exceed the costs. ... Spending on education – particularly on reforms that raise high school graduation rates – should be viewed as a public investment, yielding a stream of benefits across decades,” the report concludes.



# LIFETIME COST BENEFIT ANALYSIS

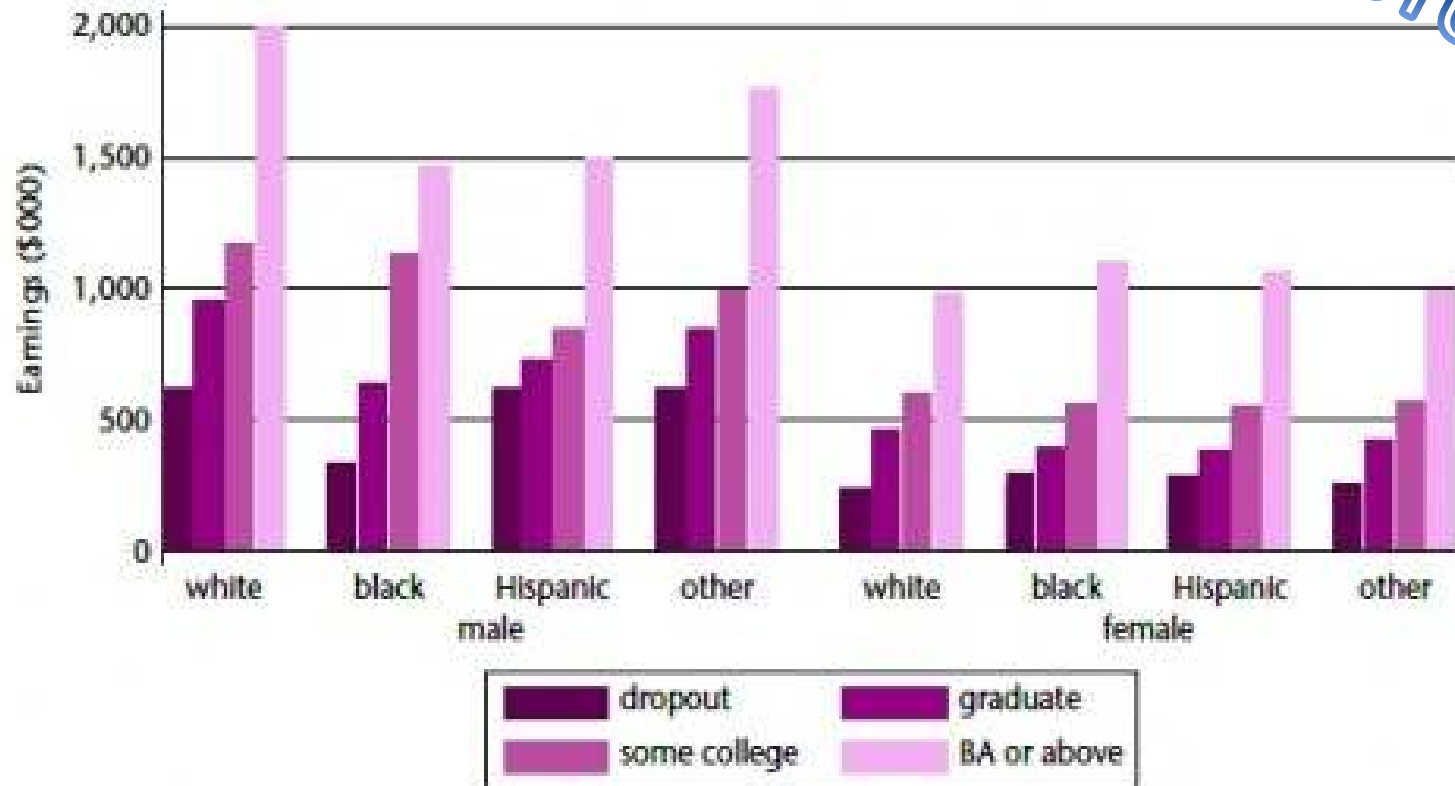






US CASE STUDY

CHART 1 LIFETIME EARNINGS BY EDUCATION LEVEL



SOURCES: Current Population Survey (March 2003 and 2004).

NOTES: Earnings figures include all persons, i.e., persons with positive or zero income. Figures are adjusted for differences in incarceration rates by education level (but not GED status). Productivity growth is assumed at 1.5% per year. Discount rate is 3.5%.





**TABLE 4 LABOR MARKET OUTCOMES BY EDUCATIONAL ATTAINMENT (AGED 21–64)**

	<i>High school dropout</i>	<i>High school graduate</i>	<i>Some college</i>	<i>BA degree or more</i>
<i>Employment (%):</i>				
Male: white	71	79	81	89
Male: black	49	66	70	83
Male: Hispanic	70	78	69	85
Male: other	71	79	77	88
Female: white	46	65	72	78
Female: black	46	63	70	84
Female: Hispanic	51	57	64	65
Female: other	48	62	69	73
<i>Average annual earnings:</i>				
Male: white	\$22,800	\$33,900	\$40,300	\$79,100
Male: black	\$13,500	\$21,800	\$29,600	\$53,800
Male: Hispanic	\$21,400	\$24,000	\$26,000	\$54,200
Male: other	\$22,300	\$30,100	\$34,900	\$69,700
Female: white	\$7,800	\$16,500	\$20,400	\$35,600
Female: black	\$10,000	\$14,200	\$19,500	\$40,600
Female: Hispanic	\$9,900	\$14,500	\$17,300	\$39,000
Female: other	\$8,600	\$15,700	\$19,200	\$36,900

**SOURCE:** Current Population Survey (March 2003 and 2004).

**NOTES:** Employment rates are based on populations, not labor force size. Annual earnings include those with zero earnings. No adjustment is made for incarceration rates.



**TABLE 12 PRESENT VALUE LIFETIME PUBLIC ECONOMIC BENEFITS**

	<i>Total lifetime economic benefit per expected high school graduate</i>	
	<i>Male</i>	<i>Female</i>
White	\$262,100	\$162,000
Black	\$268,500	\$174,600
Hispanic	\$196,300	\$143,000
Other	\$239,000	\$157,300
<i>Average</i>		<i>\$209,100</i>

**NOTES:** Benefits are gross, i.e. they do not account for the costs of additional educational attainment. An expected high school graduate is one who probabilistically either: terminates education after graduation; completes some college; or completes a BA degree. Discount rate is 3.5%.

Source: [http://www.cbcse.org/media/download\\_gallery/Leeds ...](http://www.cbcse.org/media/download_gallery/Leeds ...)

# CUMULATIVE EDUCATIONAL ATTAINMENT OF THE POPULATION AGED 25 YEARS AND OLDER





***“Malaysia is one of 125 countries out of 180 countries (for which data were available) that is on course to reach gender parity by 2005 - a target set by the UN as part of the Millennium Development Goals.***

***The apparent impressive gains made by these 125 countries however masks huge pockets of inequity in several parts of the world, namely in three regions - Middle East/North Africa, South Asia and West/Central Africa – where there are low rates of gender parity.” Mrs.Philip. © UNICEF  
Malaysia/2005/NadchatramUNICEF Representative to Malaysia,  
Gaye Phillips with a copy of the Report.***

# SUMMARY

- Education has been a prominent key to improvise economic structure of a country.
- Investment in education will lead to success if ample of opportunity is provided to avoid mismatch of labor force.
- Return cost of education is important to increase the standard of living of a society particularly in Malaysia to develop a knowledge based society.

**\*Thank You \***