

Social Aspect of Higher Education: The Case of Indonesia

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Abstract

Makalah ini mencoba melihat sistem pendidikan tinggi di Indonesia terkait dengan jumlah subsidi yang diberikan oleh pemerintah pusat. Saat ini terdapat 850,000 mahasiswa yang sekarang mengikuti studi di 52 Perguruan Tinggi Negeri dimana uang SPP yang dibayarkan hanya mencakup 11% dari seluruh pengeluaran yang ada.

Salah satu alasan mengapa pemerintah mensubsidi PTN adalah pada awalnya didasari oleh sentimen egaliter yang kuat. Sebenarnya semua kebijakan yang terkait dengan pendidikan dan kesehatan dapat dijustifikasi dengan menggunakan prinsip egaliter. Namun, karena anggaran pemerintah yang terbatas serta banyaknya tujuan-tujuan pembangunan lain yang ingin dicapai, pemerintah harus memberikan justifikasi berdasarkan kriteria-kriteria yang lebih spesifik. Tiga kriteria yang digunakan dalam tulisan ini, untuk lebih mengarah kepada dampak sosialnya, adalah pemerataan, mobilitas sosial dan modal sosial.

Sumber pendanaan yang bervariasi dapat meningkatkan kualitas, efisiensi dan pemerataan. Dan juga karena adanya ketidaksempurnaan pasar dalam pendidikan tinggi, intervensi dari pemerintah tetap diperlukan. Tulisan ini memberikan usulan kebijakan untuk menaikkan biaya SPP serta untuk menyediakan lebih banyak pinjaman serta beasiswa untuk tetap menjaga akses terhadap pendidikan tinggi bagi masyarakat berpendapatan rendah.

I. INTRODUCTION

In the 20th century, revolutions in science, technology and communications have altered expectations, and reshaped economic structures and opportunities, including agriculture and employment patterns. These revolutions surely put pressures on individuals and families to adapt. Besides creating opportunities, these revolutions correspondingly create threat for those who lagged behind in adapting to the changing situation. The threat poses from this industrialization process would considerably denounce the lower class of the society. For this lower class have limited resources to cope with the changes and thus reduce their ability to adapt. Moreover, in many developing countries, mass poverty, unemployment and underemployment, illiteracy, limited opportunities, sharp contrasts in living standards and the absence of services, especially health and education remain the dominant features of the social situation.¹

The history of the twentieth century has shown clearly what the appropriate role for the state should be. The state's role is in setting the framework and establishing the groundrules for economic growth and socio-economic development to take place. This means that the state must²:

- Provide a sound and predictable legal framework for property ownership and the enforcement of contracts,
- Manage macro-economic variables such as the national currency,
- Regulate financial institutions both as a part of monetary policy and to guarantee against imprudent or fraudulent practice,
- Provide public goods such as defence, policing, emigration control or trade policy provide a framework for dealing with negative externalities such as industrial pollution when they adversely affect health, safety or the environment,

1 United Nations, *Guiding Principles For Developmental Social Welfare Policies and Programmes in The Near Future*, New York, 1988.

2 Ann Bernstein, *The State And The Market In Developing Countries*, Economic Reform Today Working Papers Number 8, The Center For International Private Enterprise, 1997.

- Maintain competitive conditions by promoting freedom of entry into economic activity; ensuring consumer access to information necessary for market choices; dealing with natural monopolies such as telecommunications, radio broadcasting or water resources,
- Ensure that social goods are delivered throughout the society. This refers to education or health care up to a certain basic level and it implies that the state's role is to ensure that it happens, not necessarily to do it itself,
- Ensure a welfare safety net for the disabled, sick or aged etc.

Indonesia, just like many of the developing countries, faces problems in allocating the government budgets into various development programs such as described above. Indonesians have long debated, for example, whether priority should be given to the goal of social equity or the need for economic growth, and whether these objectives can be pursued simultaneously.

This paper would attempt to look at the current system of higher education in Indonesia in view of the subsidy allocated by the central government. There are 850,000 students who are currently studying in 52 public universities in which tuition fees only cover about 11% of its total expenditure.

2. HISTORY OF INDONESIA'S HIGHER EDUCATION

Indonesian higher education began in 1949-1950 with the establishment of Gajah Mada University in Yogyakarta and the University of Indonesia (UI) in Jakarta. Before the country gained its independence in 1945, higher education was available only to a highly selected group of Indonesians. From a population of approximately 65 million at that time, less than 3,000 students were enrolled in higher education. Between 1920-1939, the total students who were enrolled in higher education reached a total of 3,242 people.

At the early stage of its development, a higher education institution in Indonesia, just like any other sector in the economy at the time, was mainly built by the government in the form of public university. In the 1960s, there was a boom in public universities, with a total of 29

universities founded at the time. Currently, from 52 public universities in Indonesia, 10 were founded between 1970 and 1993.³

At the early stages, the majority of the people had only very limited income. If the government had not funded public universities, maybe no universities would have been built at the time (due to very limited effective demand). So the government took the first step to finance public universities hoping that enough people could afford higher education with the subsidized tuition fees. It is important to note also, at this early stage that the foreign institution also had been very generous in providing loans and grants to help Indonesia in developing its higher education. The struggle for political independence was based on very strong egalitarian sentiments. Therefore, Indonesia's constitution stipulates that every citizen has the right to education. As a consequence, this clause has impacted the nation's educational policy and programs greatly over the last 45 years.⁴

Right now institutions of higher education, especially the private universities, in Indonesia are experiencing a high rate of growth. The role of the private sector in higher education has flourished. In 1997 the number of student enrolment in private universities actually exceeded those in the public universities. There are 1,450,000 students who are currently studying in 1,200 private universities compared with the 850,000 students in the 52 public universities. In the private universities, the tuition fees cover over 97% of its total expenditure, whereas in the public universities' tuition fees only cover about 11% of its total expenditure.

3. SOCIAL ASPECT

As we mention before, the reason why the government subsidized the public universities in the first place is due to the egalitarian sentiments. Of course, all policies relating with education and health, for example,

3 Most Western developed countries witnessed an expansion of higher education during the 1960s which was followed by consolidation in the 1970s and renewed expansions during the late 1980s and early 1990s (Hare (ed.) 1997).

4 Sukadji Ranuwirdjo, 'Higher Education in Indonesia: Its Development, Problems and Prospects', in *East Asian Higher Education: Traditions and Transformations*, Albert H. Yee (ed.), International Association of Universities, Paris: 1995, p.85.

would be justifiable using the egalitarian principle. Despite the validity of this argument, due to the limited budget that the government has and other various developmental goals, the government must justify its policy using more specific criteria. In this paper, to focus more on the social impact, the focus would be given unto equity, social mobility, and social capital.

3.1. Equity

Certain types of financing will affect the distributional characteristic of students. For example, with the current subsidy system in public universities, it is widely believed that it had attracted more diverse students from different levels of family income. Though some have rejected the idea by saying that since middle and high income families tend to have their children better educated, then the current system in public universities is bias in favor of middle and high-income families.

The main point is that higher education ought to be available to those who can benefit from it. Offering a place to a dull but rich young person while denying it to a clever poor one looks unattractive, and feels wrong. All students who are qualified to pursue a course of higher education, and wish to do so, should be able to take up a place.

3.2. Social Mobility

Education is very important for ensuring social mobility. Education would provide people with opportunities to get a better job, to increase their income and to move up the social ladder. This is true especially for poor families. Because these families do not have any inheritance from their parents, education could be the only solution for them to raise their income. At the extreme, for richer families even without education they could use their inheritance to start of some business and then could profit from the capital they invested.

3.3. Social Capital

Higher education could also contribute to increase in income by making the undergraduates to stock up their 'social capital'. Social capital here would refer to the people that one knows, the good relations that they are

able to maintain, and also the possibility of intra-marriages between different social class.

4. BENEFITS OF EDUCATION

Although education is notable for bringing the range of social benefits, education also provide substantial private benefits. This means that people would pay to get education. Whether they would be prepared to meet all or only part of the full costs depends upon their perception of the magnitude of private benefits accruing and of the reliability of such benefits, and upon their family circumstances, in particular their income. It is widely accepted that education increases the earning capacity of individuals via its effects upon individual productivity.⁵

Education provides benefit to individuals as well as to society. At the micro level education has an effect on income level while at the macro level it would affect economic growth. The benefit of education for income or economic growth is reflected in the Internal Rate of Return (IRR). IRR is more or less defined as an each rupiah contribution to the investment of education, both from social and private, toward the increase of gross domestic production for various levels of education. The IRR in practice is divided into two component which are Social Rate of Return (SRR) and Private Rate of Return (PRR).⁶

Table 1 shows the SRR in Indonesia during 1982-1989. During that period of time, the SRR of secondary education, the Junior High School and the Senior High School, is the highest compared to other level/kind of education. Therefore, according to the SRR criteria, priority has to be

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- 5 The positive impact of education has been extensively documented by Psacharopoulos (1973;1994), who finds that average earnings rise monotonically with years of education but that both social and private rates of return are highest for primary and least for tertiary education. See also Schultz (1991). Some even believe that education merely sorts out those who are clever from those who are not, rather than contributing separately to productive capacity. (Useful reviews of the various types of screening theory are given in Whitehead 1981, and Weiss 1995. For recent controversy surrounding the interpretation of measured rates of return see Bernal 1996).
 - 6 The SRR try to explain the benefit of education for social or community in general by the total investment from social and government on education toward the increase of GDP for various level of education. Meanwhile, the PRR try to explain the benefit of education for individual itself by dividing the investment from private or individual on education toward the private benefit (Tjiptoherjanto 1996).

given to secondary education. High school SRR is higher compared to vocational school possibly because of the graduates from this school are quite prepared to be trained in various skills, so that it has a bigger influence toward productivity growth than the influence of other levels/kinds of education.

Table 1
Social Rate of Return (SRR) by Level of Education

Level of Education	1982	1986	1988	1989
Primary School and less	0.13	0.16	0.13	0.04
Junior High School	0.17	0.14	0.13	0.14
Senior High School (General)	0.22	0.16	0.13	0.11
Senior High School (Vocational)	0.16	0.15	0.10	0.06
Academy	0.13	0.10	0.12	0.05
University	0.11	0.07	0.06	0.05

Source: Ministry of Education and Culture 1992.

The SRR of basic education and under decreased steeply, i.e. from 13% in 1982 to 4% in 1989. This means that there are too many workers with primary education attainment, who are most classified as blue-collar workers. This also shows that investment on basic education has proven to be sufficient. It seems that the government has to start giving priority to secondary education level, i.e. the Junior and Senior High School. Along with this, the 9 years compulsory education program (reaching the level of Junior High School) which has already been proclaimed by the government seems to be a right move.

Other study done by the Ministry of Education and Culture (1985) for ten fields of study in public university found that the highest SRR and PRR is in technology (23.4% for PRR and 4.0% for SRR) and the lowest is in education (3.5% for PRR and 0.61% for SRR). Field of studies which also have a good PRR and SRR are Economics (21.8% for PRR and 3.73% for SRR), Psychology (15.1% for PRR and 2.59% for SRR), Mathematics (15.1% for PRR and 2.58% for SRR), and Medicine (14.3% for PRR and 2.44% for SRR). Surprisingly in an agricultural country like Indonesia, PRR and SRR for Agriculture field of study are not high as they should be (6.4% for PRR and 1.0% for SRR).

Both SRR and PRR are very important in human development strategy. For the individual, PRR could be used for decision whether he/she wants to continue their education or enter the labor market. Furthermore, both of SRR and PRR could be used for explaining the labor market situation, projecting the supply of employment based on level of education in the near future, and preparing the education and manpower planning.

Compared to other countries in Southeast/East Asia, the percentage of public expenditure for primary and secondary schools in Indonesia is quite low, only about 52%, while in Thailand is about 78%, Malaysia (69%), Philippine (73%) and South Korea (78%). On the contrary, the public expenditure for the tertiary education in Indonesia is quite high, which is about 20%, while in Thailand is about 15%, Brunei (10%), Philippine (15%).

The majority of university graduates (excluding diploma graduates) work in 'Community, Social and Personal Services' type of employment (Table 2). It is very likely that due to the recent financial crisis, many of these employment opportunities would decrease significantly, thus adding to the problem of graduates' unemployment.

Table 2
Number of Workers with university level education according to types of employment (excluding workers with diploma level education)

Types of employment	Sum of Workers	Percentage
Agriculture, Forestry, Hunting, and Fisheries	27,259	3.0%
Mining and Quarrying	8,938	1.0%
Manufacturing Industry	72,060	7.9%
Electricity, Gas, and Water	5,403	0.6%
Construction	40,915	4.5%
Wholesale, Retail, Restaurant and Hotel	85,699	9.4%
Transportation, Storage and Communication	19,882	2.2%
Financing, Insurance, Real Estate and Business Services	65,906	7.2%
Community, Social and Personal Services	585,371	64.2%
Other	732	0.1%
Total	912,165	1.2%

Note: the total workers with university graduates represent 1.2% of total workers.

Source: Labor force situation in Indonesia, Central Bureau of Statistics, 1993.

The other problem of human resource development of labor force is the mismatch between education and field of endeavor. According to the 1994 National Labor Force Survey, educated unemployment rate is very high, i.e. 20.3% of the high school graduates and 17.3% of those with tertiary education. The number went down in 1996 to 13% of the high school graduates and 12% of the tertiary educated (Appendix Y). The projections of educational structure of labor force in 2010 suggest that about 5 - 6.9% of the labor force attained higher education compared with 3.7% in 1995.⁷

Table 3
Percentage of Labor Market Based on Education Qualification,
1995 and 1996

Highest Education Qualification	1995			1996		
	Supply*	Demand+	Unemployment**	Supply*	Demand+	Unemployment**
No schooling	11%	12%	1.79%	10%	10%	0.50%
Less than primary	23%	24%	3.32%	19%	20%	1.10%
Primary school	33%	33%	5.95%	38%	38%	2.75%
General	11%	10%	10.29%	12%	11%	6.79%
Technology	1%	1%	8.85%	1%	1%	6.90%
Junior high school	12%	11%	10.17%	13%	12%	6.80%
General	10%	9%	18.09%	10%	9%	14.88%
Vocational/Technology	7%	6%	12.36%	7%	6%	11.34%
Senior High School	17%	15%	15.77%	17%	15%	13.45%
Diploma	2%	2%	10.98%	2%	2%	9.67%
University/Institute	2%	2%	13.51%	2%	2%	13.87%
Higher Education	4%	4%	12.36%	4%	3%	11.82%
Total	100%	100%	7.24%	100%	100%	4.89%

* Estimated by using total workforce, as a percentage of total workforce

+ Estimated by using total employment, as a percentage of total employment

**As a percentage of total workforce

Sources: SUPAS 1995, SAKERNAS 1994, 1996, BPS.

The low class cannot afford to be jobless, because they do not have any social security to support them. Therefore they must work. Those

7 Source: 1995 SUPAS, Training and Labor Market Study (World Bank, 1996); and World Bank staff calculations.

who are high school and tertiary educated who belong to the upper class family can afford to be jobless, at least temporarily, until they find a suitable job. This supports the explanation about the high rate of unemployment among high school and tertiary education graduates. The insider-outsider theory explains that not all workers are in a position to demand what they want. The workers in primary sectors are those who exert little market power. These are jobs with relatively low turnover costs. Usually they require little skill, they are often blue-collar and lowly-paid. The secondary market, on the other hand, is characterized by greatly specialized skills, white-collar and high pay.⁸

Analysis of changes in the unemployment rate over time reveals that it is the rapid increase in the size of tertiary education output, and less the increase in the unemployment rate or the duration of search, that has been responsible for the increasing share of graduates in the unemployment pool (World Bank, 1996).

The high rate of unemployment among the educated labor force, although possibly a temporary condition, shows that the labor market does not function efficiently. Some explanation among others⁹:

- The mismatch between the characteristic of the graduates entering the labor market and the field of endeavor available;
- The expectation of the graduates for a higher income compared to what is offered by the labor market; and
- The imperfect labor market information.

Based on the previous paragraphs, we would be able to conclude that actually Indonesia is producing significant graduates' unemployment. As such, this problem could arise from the inadequate resources invested in secondary education which leads to deterioration in the quality of education. Since significant amount of graduates' unemployment exists, the government could redirect its funding allocation towards the secondary education (which is also shown by the

8 Hans Melberg, *Unemployment: Micro or Macro Theory*, <http://home.sol.no/hansom/papers/921120.htm>, 1992.

9 Tjiptoherijanto, *op. cit.*, p.40.

higher SRR for secondary education) and raise the tuition fee of public universities such that giving the signals for people to consider carefully and prepare sufficiently before and after entering universities.

5. GOVERNMENT INTERVENTION

The case for state financing of education is based partly upon the possibility of market failure, partly upon distributive consideration, and partly upon notions of 'rights'. Some critics point out, however, that expecting the public sector to put things right may be unrealistic where those people upon governments depend for support are the richer, more articulate groups, whose interests may be threatened by a more equitable sharing of access to resources and services.¹⁰

5.1. Forms of Government Intervention

Since Indonesian higher education is accessible to all by law and funded by the state, the government has tried to fulfill its educational responsibilities through fiat and top down control. The bylaw of 1980 imposed a policy of uniformity for all universities in order to meet the staggering demand for equal access.

The Ministry of Education and Culture (MOEC) has not only controlled all aspects of institutional policy but also has entered into campus academic and administrative matters to dictate uniform management procedures. For example, the national entrance examination was established in 1984 to screen student enrolments. Another example of the Ministry's top-down control is that it dictates the core curriculum of all study programs at post-secondary institutions, about 70% of first-degree programs. Also academic as well as non-academic staff positions and requirements are decided by the national government and each campus must adjust itself accordingly. Rigidity as well as control is demonstrated by the Ministry's itemized budgeting of institutions with prior approval necessary before any funds or items can be adjusted.¹¹

Until the 1990 bylaw, Public Universities were squeezed by the government's contradictory aims. In contrast, the Private Universities

¹⁰ Colclough, *op. cit.*, p.15.

¹¹ Ranuwardjo, *op. cit.*, p.86.

have operated freely without government controls on tuition fees that are often 2-4 times greater than state fees. The private schools have also derived 20% of the nation's funds for Higher Education. Major provisions of the 1990 bylaw were meant to decentralize the administration of the Public Universities and allow campuses to plan and design academic programs and manage fiscal resources acquired locally, such as tuition fees, contract research, consultancies, etc. Many claim that the bylaw has not gone far enough, since faculty salaries are still determined by civil-service rates and state funds must be used according to procedures of the central government.¹²

Public universities in Indonesia are organizationally under the Director General of Higher Education. Below the Directorate General are four directors: the Director of Academic Affairs, the Director of Student Affairs, the Director of Private Universities, and the Director of Research and Community Affairs.

Administration and supervision of the universities are coordinated through the Directorate General of Higher Education in Jakarta. The civil service framework provides the basic salary and promotion scale for all the administration and teaching staffs. The basic civil service scale and corresponding salaries for university teaching personnel are shown in Table 4.

Table 4
University teaching title and corresponding
civil service rank and salary range

TITLE	CIVIL SERVICE RANK	MONTHLY SALARY RANGES (in rupiah)	
		1985	1997
Teaching Assistant	IIla - IIlc	81,000 - 190,300	241,800 - 469,800
Young Lecturer	IIId	90,800 - 200,200	272,000 - 593,800
Lecturer	IVa - IVb	93,200 - 231,200	282,900 - 642,300
Associate Professor	IVc	104,500 - 242,300	306,000 - 668,000
Professor	IVd - IVe	110,400 - 265,600	318,200 - 772,500

Source: Ministry of Education and Culture, 1985, 1997.

¹² *ibid.*, p.90.

This amount of salary is indeed very small. For a lecturer, with a salary of Rp 282,900/month (zero year of experience), he would only be able to support himself. In general, a civil servant's salary in Indonesia is relatively low compared with other ASEAN countries. The civil servant's salary is only of a quarter to one-third of its counterparts in the private sector. (Please refer to Table 5)

Table 5
Ratio of income between civil servant with its counterpart in
the private sector in ASEAN, 1993

Country	GDP per capita	Inflation rate	Upper class income	Middle class income	Lower class income
Singapore	14,920	2.4	114	115	107
Malaysia	5,900	3.6	40	34.3	N/A.
Philippines	2,320	7.6	27.7	25	62.5
Indonesia	680	9.7	36	18	25

Sources:

1. World Bank, *The East Asian Miracle: Economic Growth and Public Policy*, Washington DC, USA, 1993.
2. *The Jakarta Post*, Jakarta, January 15, 1994.

Table 4 shows the instructional staff ladder and the corresponding civil service scale and salary. The monthly salaries in each civil service rank are also a function of years in service within a rank. Thus, a person in rank III-a (in 1985) in the first year received Rp 31,000/month, but if he/she were in the 24th year of the same III-a rank (not having been promoted to rank III-b), that person would receive Rp 171,000/month. These salaries are a basic minimum, as there are also subsidies and various special payments for special services, such as service on committees, or service as thesis advisor.

Promotion from Teaching Assistant to Young Lecturer and on up through the ranks is determined by a combination of years of service in rank, approval of one's supervisor, and/or by a committee of peer review. At the upper end of the scale, for promotion to professor, a point system is utilized based on numbers of points for degrees held, workshops attended, books written, and research projects carried out. Professors are formally appointed by the President of the Republic.

Those who serve as administrators in higher education receive special pay allotments over and above their civil service ranking. This special payment, however, would be different according to the ability of the respective faculty or departments.

Few administrators receive any special training for their roles as department heads, deans, assistant rectors, or rectors. This lack is recognized as a special problem in university administration.

Amidjaja, a former Director General of Higher Education, wrote in 1983:

"Weakness in managing the conduct of both academic and administrative activities is the prevailing situation in higher education institutions in Indonesia. A career in higher education management at tertiary institutions is not attractive enough for university graduates for proper qualifications. Besides competition with the private sector, the importance of knowledge and skills in the management of education is not well perceived by teaching staffs which, de facto, occupy most of the available management and administrative positions in higher education institutions."

If we look at Table 6, we see that in primary education, the government is providing most of the funds; as the level of education rises a larger proportion of educational expenditures comes from private sources. However, the fact still remains that each successive level of education received relatively larger per student allocations, with public higher education receiving the largest amount, Rp1,606,00 per year (Appendix K), more than seven times that of primary education (out of the total budget, including recurrent and development budget).

Table 6
Total Yearly Expenditures on Education, by Source of Funds and Level of
Schooling, 1995-96 (Rp Billion)

Types of School	Number of Students 1000s	Education System and School Level Spending			Out of School Spending by Families	Totals	Percentage Distribution by Level of Schooling
		Central Government (1)	Family and other non-government (2)	Total System Expenditures (3)			
Primary	29,448	5508 (75)	537 (7)	6044 (82)	1285 (18)	7329 (100)	34%
Junior secondary	8403	1925 (52)	860 (23)	2785 (76)	886 (24)	3672 (100)	17%
Senior secondary	4676	1714 (52)	802 (24)	2517 (77)	769 (23)	3286 (100)	15%
Tertiary	2650	1537 (25)	3893 (64)	5431 (89)	653 (11)	6084 (100)	28%
General administration & other education		1279		1279		1279	6%
Totals	45,177	11,963	6,093	18,056	3,593	21,649	100%

Percentage distribution by source of funds

Sources for school system spending	66%	34%	100%		
Sources for total spending	55%	28%	83%	17%	100%

Sources:

Central government -- government budget documents plus ADB project estimates based on data from MOF, nation-wide school surveys and Susenas;
 Family and other non-government—ADB project estimates based on data from nation-wide school surveys and Susenas; Out of school spending by families—ADB project estimates based on data from Susenas.

Total government funds for education represented 15.3% of the total government expenditure and 2.8% of GNP; both of these percentages represent a level of government expenditures on education well below those found in other comparable countries in Asia.

In a recent international comparison, using data for 1992, Indonesia's public expenditure on education was measured as 2.2% of GNP, one of the lowest figures for Asian countries. The average for 11 Asian countries was 3.4% and figures for some comparable countries included: India 3.7%, Korea (Republic of) 4.2%, Malaysia 5.5%, Pakistan 2.7%, Philippines 2.9%, Sri Lanka 3.3%, Thailand 4% (data for 1992).¹³

In Public Universities, the tuition fees collected consist of only 11% of the total source of funds; whereas in Private Universities almost all of the funds needed (98%) comes from student fees. The main source of funds in Public Universities is the government budget, which consists of 67% of the total. Thus, each student in Public Universities only has to pay Rp 278,000 p.a. in average (it is spread quite evenly among the Public Universities) while each student in Private Universities must pay almost 8 times of that amount, more than Rp 2 million p.a.

6. BUDGET STRINGENCY IN PUBLIC UNIVERSITIES

The rapid expansion of education has not been brought about by the actions of the Government alone, for particularly in the post-basic education areas, the private sector is heavily involved in providing education and training. Indeed, the main characteristic of the supply of skills is that it is now dominated by private institutions (Table 7). The number of graduates from private post secondary institutions and universities are more than double their counterparts from public institutions in 1994. In 1995 (Table 8), Public Universities students were only about less than a quarter of total tertiary students; while Private Universities students consist of more than half (62%) of the total tertiary students.

13 A. Mingat, *Towards Improving Our Understanding of the Strategy of High Performing Asian Economies in the Education Sector*, ADB, 1995.

Table 7
The Supply of Education and Skills in Indonesia ('000)

Education Level	Total Output	of whom private	Drop outs	Not proceeding to next level of education
Primary b/	3,840	256 (7)*	1,200 (31)	1,200 (31)
Junior Sec. b/	1,905	522 (27)	400 (21)	400 (21)
Senior Sec.	1,226	592 (48)	300 (24)	800 (65)
General b/	863	366		
Vocational c/	210	129		
Technical c/	153	97		
Diploma	59	39 (25)	100 (47) e/	n.a
Degree	155	110 (71)		n.a.
Post Graduate	2			
PTKs (Civil Service Tertiary Inst) f/	54			
BLKs/KLKs (MOM Training Centers)	50			
Private Training Centers		4,500		

a/ Most recent year, varied from 1992 to 1994

b/ Includes religious schools

c/ Includes commercial (SMEA) and home economics (SMKK)

d/ Includes three and four year technical schools (STM, STMP)

e/ Number is for both diploma and degree dropouts

f/ Enrolment in selected PTKs

* () : as a percentage of total output

Source: Training and the Labor Market in Indonesia: Productivity Gains and Employment Growth (June 1996)

Table 8
The Composition of Tertiary Students in the end of
PELITA V (1995), in thousand

Number of Population age 19-24	22780
Number of Tertiary Students	2200
Gross Enrolment Rate (GER)	0.096
Consist of:	
Public University Students	500
Private University Students	1365
Religion Inst. Students	216
Civil Service Inst. Students	114
Ratio of Students from Public Universities and Private Universities	1:2.5
Composition of Public Universities Students:	
Engineer/technology	14%
Other science	19%
Social and Education Science	67%

Source: Bambang Soehendro, Kerangka Pengembangan Pendidikan Jangka Panjang, 1996-2005, Depdikbud, Ditjen Dikti.

Amidst the soaring numbers of students and institutions, the quality of education, of course, is a very serious problem. To give the facade of quality at least, the government formed an accreditation board with 12 regional offices, eight established in 1978 and four more in 1990. However, implementing standards of quality, especially at outlying institutions, is very difficult due to the lack of expert personnel and funds. Accreditation at present, therefore, is relatively meaningless.¹⁴

Using another projection from LD-FEUI¹⁵ and targeted GER from GBHN 1983, in the year 2020 the total number of tertiary students in Private Universities would have reached 4.6 million, more than 70% of total tertiary students. This would mean that the increase in enrolment of higher education would be absorbed mostly by private universities. However, this does not mean that it would reduce the pressure for Public Universities to increase its absorptive capacity. According to the projection, the number of students in Public Universities in year 2020 must reach 1.2 million, almost triple from the number of 0.5 million in 1995.

From Table 9, examining the composition of tertiary students taking up engineer/technology courses, the projection expects an increase of proportion from 16% (1995) to 24% (2020) for Private Universities and 14% (1995) to 42% (2020) for Public Universities. We also notice that in Public Universities, the proportion of students enrolled in engineering/technology course would have an increasing trend and in the year 2020 the proportion of students enrolled in engineering/technology course would be higher than social science course; a complete reverse of the situation in 1995. This is actually an ambitious goal to be accomplished and demand sufficient mobilization of resources for the goal to be achieved.

¹⁴ Ranuwijardjo, *op. cit.*, p.87.

¹⁵ Demographic Institute, Faculty of Economics University of Indonesia.

Table 9
GER of higher education according to GBHN 1993 and the Tertiary Student Growth Simulation (in 000)

	END OF PELITA V (1995)	END OF PELITA VI (2000)	END OF PELITA VII (2005)	END OF PELITA X (2020)
GER of higher education*	10%	12.09%	15%	25%
Number of Population age 19-24	22780	25650	26980	24790
Total Tertiary Students	2220	3100	4050	6240
Public University Students	500	550	690	1200
Private University Students	1370	2200	3000	4640
Religion/Civil Service Institution Students	350	350	360	400
Public Universities and PTS:				
Engineer/technology	16%	18%	20%	24%
Other science	12%	12%	13%	14%
Social and Education Science	72%	70%	67%	61%
Public Universities only:				
Engineer/technology	14%	24%	31%	42%
Other science	19%	17%	18%	23%
Social and Education Science	67%	59%	51%	35%
Technological Public Universities only:				
Bachelor (S-1)	47	70	90	133
Diploma	23	70	125	284

Notes: * PJP-II target + Projected by LD-FEUI

Source: Bambang Soehendro, *Kerangka Pengembangan Pendidikan Jangka Panjang, 1996-2005*, Depdikbud, Ditjen Dikti. As we know, the cost of engineer/technology students is significantly higher than other science. This, combined with the need to increase the absorptive capacity of Public Universities, poses a serious pressure on

As we know, the cost of engineer/technology students is significantly higher than other science. This, combined with the need to increase the absorptive capacity of Public Universities, poses a serious pressure on the budget of the government since most of the financing in Public Universities is drawn from the government budget. Thus, unless the government increases its funding towards higher education, Public Universities in Indonesia must find other sources of financing in order to attain that goal.

Even private universities have provided mainly social science courses where the fixed costs of providing courses are low. Only 10% of the students in private universities are in science-related fields, reflecting the reluctance or inability of private universities to make more expensive investments (World Bank report, 1997). With only 10% of private universities providing science courses, the research outputs coming from these universities would also be significantly low. Thus, this left us with the public universities as the backbone of the mainstream research in technology.

As we see in Table 10, about 66% of expenditures went to recurrent expenditures, both salaries and non-salary items (in addition to whatever recurrent expenditures were included in the development budgets); which leaves 33% for investment expenditures. Salaries however, occupied the largest proportion in recurrent expenditures, with a percentage of 45% compared with the non-salary items of 26%. Thus, indeed, there is little space left for research related expenditures.

Table 10
Expenditures, public higher education, 1995-96, Rp million

TOTAL	2,066,231	Percentage of sub total
RECURRENT EXP		
Salaries and Honorarium	613,600	45%
Non-salary items	351,699	26%
Not known	408,814	30%
SUB TOTAL	1,374,113	100%
INVESTMENT EXP		
Building and land	304,967	44%
Equipment	63,714	9%
Books	2,469	0%
Staff development	40,029	6%
Other	122,300	18%
Special project	158,639	23%
SUB TOTAL	692,117	100%

Source: MOEC

7. CHARACTERISTICS OF STUDENTS IN PUBLIC UNIVERSITIES

From Table 11, we found that total household expenditure on tertiary education reached Rp 1,682 billion in 1995. With a total of 2.2 million tertiary students in 1995, it means that each tertiary student in average spent around 760,000 rupiah per year. If on average each household spends 85% (Table 12) of their income per capita on tertiary education, this would mean that with one student enrolled in higher education, a family must have an income of Rp 0.9 million per year or Rp 80,000 per month (per capita). The latest data from SUSENAS (1995) estimated the average expenditure of tertiary students for public university to reach 759,000 rupiah p.a., which is almost the same as the average expenditure on tertiary education. Using the data from Central Bureau of Statistics, in 1996 monthly per capita expenditure of 80,000 and more consisted only about 24% of the total population. This would roughly indicate that tertiary education is only affordable for the upper class of the society.

Table 11
Total Household Expenditure on Education in Indonesia (Rp billion)

Education level	1992	1995
Primary	1,605	2,022
Junior Secondary	969	1,419
Senior Secondary	1,072	1,394
Tertiary	1,237	1,682
Total	4,883	6,518

Source: World Bank report from SUSENAS 1992, 1995.

Table 12
Average Annual Household Expenditures per Student
(relative to per capita expenditure) in West Java, 1995

Education level	Total
Primary	14
Junior secondary	34
Senior secondary	49
Tertiary	85
Total	24

Source: SUSENAS 1995

Household survey data corroborate school data on the importance of parental contribution in school budgets. They show that families incur non-trivial costs, especially at post-primary levels, whether they send their children to public or private school.

Wealthier students spend much more on education per year than do poorer students. The ratio of these outlays per student between the top and the bottom income deciles (i.e. the 10 percent of households with the highest income and the 10 percent of household with the lowest income) is 6 at the primary level, 3.7 at the lower secondary level, 4.5 at the upper secondary level, and 3.6 at the tertiary level.¹⁶ Even when only fees (e.g. admissions, examination fees) are considered (and more 'voluntary' expenses such as sports equipment are excluded), these ratios remain large: at the primary level the ratio is 9.6. Moreover, these differences are not simply due to the student's choice of attending a public or a private school. Even among those enrolled in public institutions, they remain significant, albeit smaller, disparities than among those enrolled in private institutions. These disparities may be interpreted as differences in the quality of schooling.¹⁷

At the tertiary level, 47 percent of out-of-pocket spending in public institutions is allocated to fees while only 8 percent go to books and other learning materials. In addition, at the post primary levels, expenses associated with travel to and from school become a much larger share of out-of-pocket costs. Although transportation costs account for only 1 percent of the total expenses for primary education, they represent 8-16 percent of the total expenses at higher levels.¹⁸

Unsurprisingly, the above findings suggest that a higher level of education would entail higher costs incurred by families. If we also count the opportunity costs, it is most likely that the poor families would face even higher fences. School attendance also involves an opportunity cost which is associated with alternative uses of time spent for school-related activities. According to SUSENAS 1989 data, on average, a primary

16 The ratio is between the top decile and the third lowest decile for tertiary education. There are no data corresponding to the bottom two deciles in the population.

17 King, Elizabeth M., 'Who Pays for Education in Indonesia?', in Christopher Colclough (ed) (1997), pp.174-175.

18 Ibid., pp.175-176.

school student spends about 1/4 of an hour travelling to and from school daily; lower and upper secondary students, about half an hour; and tertiary students, about 3/4 of an hour. The greatest variation in travel time can be seen among income deciles. The overall pattern reveals that wealthier students have longer travel time than do poorer students. This means that the threshold travel time at which wealthier students would choose to stop schooling is greater than that for poorer students, for whom either the transportation cost of the extra travel time or the opportunity cost associated with it represents a more significant increment to the total cost of attending school.¹⁹

Using another data from World Bank, in 1989, more than 90% of tertiary students are from households with an upper 20% of income. (Table 13)

Table 13
The percentage of tertiary students that comes from households which have the upper 20% of income

Country	Year	Percentage
Chile	1987	63%
Colombia	1979	67%
India	1987	45%
Indonesia	1989	92%
Japan	1987	46%
Malaysia	1979	48%
United States	1987	37%
Venezuela	1986	77%

Source: World Bank, *Priorities and Strategies for Education*. Washington DC, March 1995: 39.

King (1997) suggested that income per capita and school enrolment in Indonesia are very clearly positively associated, with the gap between the poor and the rich being much wider at the higher education levels. Whereas at the primary level the net enrolment rate of the richest (top) decile is only about 15 percent greater than the enrolment rate of the poorest (bottom) decile, it is almost nine times larger at the lower secondary level and 37 times larger at the upper secondary level. Even more stark is the contrast at the tertiary level: only 1 percent of youths

¹⁹ Ibid.

aged 19-25 in the bottom 60 percent of the population were enrolled, compared with 27 percent of those in the top decile. This statistic alone suggest that public subsidies for tertiary education must disproportionately benefit the richer groups.²⁰ For a complete description please refer to Table 14.

Table 14
Share of enrolment in public schools, 1989 (%)

Income decile	Primary	Junior secondary	Senior secondary	Tertiary
Poorest	86	57	61	-
2	89	55	60	-
3	90	55	47	0
4	90	57	42	0
5	90	56	37	0
6	89	57	40	22
7	89	58	43	17
8	87	57	43	45
9	85	59	44	43
Richest	71	52	45	35
Total	87	57	43	36

Source: Calculated by King (1997) using data from SUSENAS.

This disparity of enrolment in higher education could be traced back to the inequality of educational quality received at primary and secondary levels. As regards the characteristics of those who enroll in primary level, a very high proportion (87 percent) of primary students is in public school. Comparing income groups, there appears to be a slight preference among those in the richest 20 percent as well as in the poorest decile for private schools. However, while the richest group will be attending the high-cost, high-quality schools of their choice, the poorest group is likely to be attending the only primary schools available to them, whatever the quality.²¹

The primary level has a significant problem of dropouts, which reach 31% (the highest in all education level) and a low continuation rate (31% of those finishing primary education do not continue to the secondary level). (Table 15)

²⁰ Ibid., p.170.

²¹ Ibid., p.171.

Table 15
The Supply of Education and Skills in Indonesia ('000)

Education Level	Total Output	of whom private	Drop outs	Not proceeding to next level of education
Primary b/	3.840	256 (7)*	1.200 (31)	1.200 (31)
Junior Sec. b/	1.905	522 (27)	400 (21)	400 (21)
Senior Sec.	1.226	592 (48)	300 (24)	800 (65)
General b/	863	366		
Vocational c/	210	129		
Technical c/	153	97		
Diploma	59	39 (25)	100 (47) e/	n.a
Degree	155	110 (71)		n.a.
Post Graduate	2			
PTKs (Civil Service Tertiary Inst) f/	54			
BLKs/KLKs (MOM Training Centers)	50			
Private Training Centers		4.500		

a/ Most recent year, varied from 1992 to 1994

b/ Includes religious schools

c/ Includes commercial (SMEA) and home economics (SMKK)

d/ Includes three and four year technical schools (STM, STMP)

e/ Number is for both diploma and degree dropouts

f/ Enrolment in selected PTKs

* () : as a percentage of total output

Source: Training and the Labor Market in Indonesia: Productivity Gains and Employment Growth (June 1996)

At the secondary level, even including private schools, the average distance to the nearest school for the poorer income deciles is several times that for the richer income deciles.²² This shows that the lower-income students have limited choices; thus they must choose schools solely based on affordability criteria, ignoring distance and probably quality of schools.

22 *ibid.*

At the senior secondary level, a pattern of the richer students preferring private schools strongly emerges: whereas 61 percent of those in the poorest decile are enrolled in public schools, this is true of only 45 percent of those in the richest decile.

At the senior secondary level, Indonesia also has the problem of high level of drop-outs (reaching 24%) and the lowest level of continuation rate (only 35% of those who complete senior secondary continue to higher education).

By contrast, at the tertiary level the relationship with income is reversed: a higher proportion in the better-off families attend public institutions, thus providing further evidence that subsidies at the tertiary level are not egalitarian. As in many countries, the public universities in Indonesia tend to be of higher quality than private institutions because they have a limited enrolment capacity and thus ration their places through entrance tests. Students from richer families who have also attended higher-quality primary and secondary schools are usually better prepared for the tests.

8. ANALYSIS OF THE SOCIAL ASPECTS

8.1. Equity

It is the main argument for the current subsidized tuition fee. With lower tuition fee, people from poor family would be able to enter Public Universities. However, we must remember that opportunity costs rise sharply at secondary level and beyond, when labor market opportunities for those with post-primary schooling become significant, and they often amount to the greater part of total educational costs at post-primary levels. Students from richer families who have also attended higher-quality primary and secondary schools are also usually better prepared for the tests to enter Public Universities. A higher proportion in the better-off families attends public institutions, thus subsidies at the tertiary level are not egalitarian.

Since public higher education is financed by the entire population but available only to a small minority, they have a regressive fiscal impact. Public university students in Indonesia consist of only 2% of the student population however they received 11.5% of the public education budget. (Table 16)

Table 16
Total Yearly Expenditures on Education by Government Agencies,
by Source of Funds and level of Schooling (Rp billion)

Types of School	Number of Students 1000s	Total Yearly Expenditures	Percentage as total of Govt exp on education
Primary	29,448 (65)	5,509	46.0%
Junior Secondary	8,404 (19)	1,924	16.1%
Senior Secondary	4,676 (10)	1,714	14.3%
TERTIARY			
Public Universities	853 (2)	1,370	11.5%
Private Universities	1,450 (3)	73	0.6%
Univ. of Islamic Religion Public	279 (0.6)	94	0.8%
Univ. of Islamic Religion Private	68 (0.2)	-	0.0%
Other Education		350	2.9%
General Administration		929	7.8%
TOTALS	45,177 (100)	11,963	100.0%

Sources: Government budget documents plus project estimates based on data from MOF and school surveys.

Our discussion above about the students' characteristics in Public Universities would give us some indication that those who consume tertiary education mainly come from the well-to-do families. Thus, we can conclude that actually even if the tuition fee is increased there will be no serious effect on equity. The funds raised by this increase could be used to increase the quality of higher education, by increasing the research expenditures, and raising the salary of lecturers such that the quality of teaching and research could increase significantly. These would later on lead to increased economic growth which could provide more opportunities for the society to expand and develop.

8.2. Social Mobility

In term of social mobility, the skewed distributions of students in Public Universities favoring rich families could create another barrier for poor families in climbing-up the social ladder. In most of the developing countries, Indonesia is not an exception, the capital market is tend to be

imperfect; such that credit to be unavailable to the poor - often because the lender is not prepared to take the risk of default. As the poor have no collateral due to lack of inheritance from their predecessors, they lack the capital necessary to start a business. As such, their human capital is the only choice left available to increase their income. It follows then, unless they find a way to increase the quality of their human capital, which is achieved mostly by formal education, they would remain stuck in their lower social strata.

8.3. Social Capital

Besides providing the means of increasing income through upgrading the quality of human capital, higher education could also contribute to increase in income by making the undergraduates to stock up their 'social capital'. Relations with the 'right people', especially in developing countries, are an important factors in obtaining a good job and to start a business. 'Who you knows' is sometimes more important than 'what you knows'. Also, by increasing the opportunity of intra-marriage between different social strata, the poor could improve their social base and could increase their mobility to a higher social class.

The above opportunities would not be viable if the characteristics of the students in Public Universities is bias toward rich families. It would have just maintained the status quo and limited the chances for social mobility of the lower class.

9. AGENDA FOR ACTION

A plurality of funding sources can enhance quality, efficiency and equity. It should be remembered that serious imperfections persist in the market for higher education, so that some form of government activity in the sector is both inevitable and desirable.

9.1. Increase the Tuition Fee

It is judged that resources are often misallocated, in the sense that large numbers of people have no access to education at any level, whereas some - usually the richer groups - manage to secure fairly unlimited access. While the state is doing too much in areas where it does not have a clear advantage over private markets (e.g. in higher education), it is

doing too little in other areas where markets function poorly and where the consequences of such failure are severe (e.g. in primary and secondary education).

It is argued that charging higher fees, or increasing the proportion of private sector users, could be expected to help alleviate the financial constraint facing the public sector either by increasing public revenues, or by reducing the proportion of costs that would be met by the state.

The room for increasing tuition fees seems to be viable when we are looking at the still high PRR in Public Universities. This means that people would actually be prepared to pay

One important characteristic of education is that they cannot be resold - unlike, say, water, shelter, food, or some other necessary commodities. This means that prices charged for education services need not be uniform, since those receiving them free of charge could not resell them to those who have to pay.

It is therefore, easier to make such charges progressive than would be the case with some other commodities. Note, however, that this is not true of the supplies needed to support such services, such as textbooks and equipment, which can be resold.

With more resources from the increased tuition fee, Public Universities then could give more attractive remuneration for lecturers and administration staffs. Also the research activity could be magnified and increase the created inventions.

The resulting improvement in the financial position of the government then would allow allocative efficiency to be enhanced - more resources could be used concentrated on those parts of the system where social returns are greatest.

Technical efficiency is expected to be improved by giving lecturers and university administration a financial stake in their enterprise, and, via the imposition of fees, increasing the likelihood that parents and students will demand more of the education services. By creating greater competition for funds and students, cost-effective expansions of higher education could be achieved. Accordingly, quality should rise, diversity would be promoted, and consumer choice should be enhanced, all of which should provide some counterpoint to the allocative distortions

indulged by the public sector, arising from the interests by which it is controlled.²³

Also if the revenues arising from higher prices were spent upon increasing the supply of higher education service, the supply constraint could be reduced as price rose, and more consumers would be able to use the education service.²⁴

9.2. Provides More Loans and Scholarships

However as the tuition fee increases, the composition of those who consume it will change. Even if total enrolments rise following an increase in tuition fees, some students previously enrolled are likely to drop out - to be replaced by others from families more willing to pay higher prices and pass the entrance exam. Intuitively, it seems plausible that those who drop out are more likely to be from poorer household, since the price elasticity of demand for education is greater for them.²⁵ However, outcomes will depend more upon the initial mix of students enrolled than upon the relative size of the demand elasticities exhibited by particular income groups.²⁶ If, like in Indonesia case, the initial mix of students already coming from richer households, these dropout effects could be smaller. The government could also prohibit this from happening, by providing additional scholarships and loans.

More generally, cost recovery policies are damaging to efficiency and equity, unless focused particularly upon the higher levels of the education system, and supplemented by measures to protect access to these levels by the poor.²⁷ Care needs to be taken to ensure that any requirement for individuals to pay their own tuition fees does not block the entry into Public Universities of those without access to the requisite financial resources.

23 The World Bank seems to uphold this view rather fiercely (see World Bank 1986, 1995b). This view, however, ignored the equity costs of charges. This view assumes competitive education industry and informed consumer. Validity of these assumptions varies across developing countries.

24 There is an implicit assumption that the increased revenues accruing from fees will in fact be spent upon increased provision of services, rather than upon other budgetary heads.

25 Gertler and Glewwe (1990).

26 Colclough, *op. cit.*, p.19.

27 Colclough, *op. cit.*, p.21.

As such, we need to develop additional funding for these loans and scholarships. We could propose to increase tax-rate earmarked higher education purposes.

The main way in which poor people can be enabled to gain access to higher education of good quality is by spreading the costs more widely among the community. The main aims are to achieve cross-subsidization from richer to poorer people and from non-users to users. As a consequence the number of contributors is increased, the average per capita cost is reduced, and payments are rescheduled towards periods in life- and income-cycles when they can be more easily met. Again, taxation has been the most important means of achieving these objectives.²⁸ As Mishan (1969) observed of higher education, '(it) is an investment that will pay for itself; (it) will increase the earnings of the beneficiary students and the government will recover its costs through consequent higher tax receipts'.

10. CONCLUDING REMARKS

A final note here is that, as Beeby (1979) argue:

"There needs to be a frank acceptance of the fact that, as in all political decisions, every major educational decision is a compromise between aims which, however worthy each may be, cannot all be achieved at the same time. ... Just because each major educational decision is a compromise between competing aims, it often embodies within itself continuing tensions. Unless these are recognized by politician, planner and administrator, and measures are taken to reduce them, they can disrupt attempts to apply the decision in practice. ... it will be necessary to explain to the public some of the reasoning behind the official statement of objectives. This will not be easy, because the issues are complex.... To get the message across it will be necessary to use variety of agencies: the mass media, provincial and local authorities, community organizations, and, above all, the schools, which are not yet prepared for the task."

28 Colclough, op. cit., p.25.

In no country will achieving these reforms be easy. The predominant pattern of public higher education in the developing world principally benefits the most affluent households, which are also the most powerful politically. The children of the well off are heavily subsidized by the rest of the society to attend public universities, reinforcing their economic and social advantage. Experience demonstrates that breaking this pattern is essential, and also that the political difficulty of doing so should not be underestimated. In countries with fragile system of governance, students with grievances -and there will be grievances if subsidies and privileges are reduced- can represent a threat to political stability. (World Bank, 1994: p.26)

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