Chapter 4

Quality And Relevance Of Higher Education

THE WORLD BANK GROUP

Quality And Relevance Of Higher Education

As noted in Chapter 2, the higher education system has experienced significant growth in the last decade. The total number of postsecondary institutions jumped from 5 in 1967 to 166 in 2008. Maintaining quality during a time of system-wide expansion, diversification and financial uncertainty are important challenges.

In the past, educational quality and relevance were often viewed as synonymous: high-quality education was relevant education. But this is no longer the case. Today it is possible to have high-quality education that is irrelevant to a country's priorities—irrelevant education increases the chances of graduate unemployment and brain drain, and deprives a nation of an important vehicle for its development.

What is the quality and relevance of Thai higher education? Public perception has been mixed. Although Thailand is credited with a few centers of academic excellence, on average higher education quality is described as substandard. In a recent news article, Boonrak Boonyaketmala, a former dean at Thammasat University, expressed "The spread of higher education isn't solving the fundamental problem of quality. Many of our universities are little more than vocational colleges. Degrees are often the equivalent of a school-leaving certificate from a good European school" (Barnes, 2005).

This chapter explores various dimensions of higher education quality and relevance in Thailand—including international comparisons, institutional productivity in terms of graduates and publications, staffing and performance, and labor market responses. It concludes with a brief description of recent policy responses to establish quality assurance mechanisms for monitoring institutional outputs and activities.

INTERNATIONAL COMPARISONS

Measuring the quality of the tertiary education is challenging because of the multiplicity of fields and degrees offered as well as the difference in the missions of different types of higher education institutions. Unlike secondary education, which has comparable tests in math and science that enable international comparisons, there are fewer analogous measures in higher education. Two major international league tables—the Shanghai Jiao Tong University (China) Academic Ranking of World Universities and the Time Higher Education Supplement

(THES) World University Rankings—rank research-intensive universities worldwide. The THES asked institutions to rank universities according to the following categories: peer review (reputation), international faculty, international students, student/faculty ratios and citations per faculty member. "The five indicators have been chosen to reflect strength in teaching, research and international reputation, with the greatest influence exerted by those in the best position to judge: Academics" (THES, 5 November 2004, p. 2). Similarly, in the Shanghai Jiao Tong University index universities are ranked by several indicators of academic or research performance, including alumni and staff winning Nobel Prizes and Fields Medals, highly cited researchers, articles published in Nature and Science, articles indexed in major citation indices, and the per capita academic performance of an institution. This index attempts to minimize subjectivity of reputation rankings by focusing on outputs. Naturally, there are a number of methodological limitations inherent in any ranking exercise. However, international league tables are useful as comparative data provide insights for understanding Thailand's universities in the context of global higher education. The highest ranked universities in the world are clearly those that make significant contributions through excellence in research, teaching and producing highly skilled graduates. Ultimately, the international reputation that develops from these achievements establishes these institutions as world class.

Table 4-1 lists rankings from selected universities in Asia-Pacific from these two benchmarking surveys. The Shanghai Jiao Tong University index did not place any Thai universities in its top 500 list nor in its top 100 Asian universities list. In the THES top 200 university ranking, Thailand had one university placed at 166 (Chulalongkorn University). As a reference point, India had two universities at rankings 154 and 174. Malaysia, Indonesia, nor Philippines, as comparator countries, did not have any universities listed.

TABLE 4-1: TOP UNIVERSITY RANKINGS, ASIA-PACIFIC NATIONS

Times Higher Ed. Supplement, 2008		Shanghai Jiao Tong University, 2008	
16	Australian National University (Australia)	19	Tokyo University (Japan)
19	University of Tokyo (Japan)	23	Kyoto University (Japan)
25	Kyoto University (Japan)	59	Australian National University (Australia)
26	University of Hong Kong (Hong Kong)	65	Hebrew University Jerusalem (Israel)
30	National University of Singapore (Singapore)	68	Osaka University (Japan)
37	University of Sydney (Australia)	73	University of Melbourne (Australia)
38	University of Melbourne (Australia)	79	Tohoku University (Japan)
39	Hong Kong University of Science and Technology	97	University of Sydney (Australia)
42	Chinese University of Hong Kong (Hong Kong)	97	Kyushu University (Japan)
43	University of Queensland (Australia)	101-151	Nagoya University (Japan)
44	Osaka University (Japan)	101-151	National University of Singapore (Singapore)
45	University of New South Wales (Australia)	101-151	Technion Israel Institute of Technology (Israel)
47	Monash University (Australia)	101-151	Tel Aviv University (Japan)
50	Peking University (China)	101-151	Tokyo Institute of Technology (Japan)
50	Seoul National University (Korea)	101-151	University of Queensland (Australia)
56	Tsinghua University (China)	101-151	University of Western Australia (Australia)
61	Tokyo Institute of Technology (Japan)	152-200	Hokkaido University (Japan)
65	University of Auckland (New Zealand)	152-200	Natl Taiwan University (Taiwan)
77	Nanyang Technological University (China)	152-200	Seoul National University (Korea)
166	**Chulalongkorn University (Thailand)**	152-200	Tsukuba University (Japan)

However, what Thailand requires may not necessarily be more "world-class universities," especially if more fundamental higher education needs are not being met. World class research universities demand huge financial commitments, a concentration of exceptional human capital, and governance policies that allow for teaching and research excellence. Instead, an initial focus could be on developing national universities, perhaps similar to the land-grant universities in the US during the 19th century or the polytechnic universities of Germany and Canada. Such institutions would cater to the diverse training needs of the domestic student

population and economy. This effort could also be linked to private sector development. Box 4-1 illustrates the development of the Indian Institutes of Technology as one such example. (Salmi 2009)

BOX 4 -1: THE INDIAN INSTITUTES OF TECHNOLOGY

Soon after becoming independent, India placed science and technology high on its economic development agenda. The first Indian Institute of Technology (IIT) was established in 1951 at Kharagpur, (West Bengal) with support from UNESCO, based on the MIT model. The Second IIT was established at Bombay (now Mumbai) in 1958 with assistance from the Soviet Union through UNESCO. In 1959, IIT Madras (now Chennai) was established with assistance from Germany; and IIT Kanpur with help from a consortium of US Universities. British industry and the UK Government supported the establishment of IIT Delhi in 1961. In 1994, IIT Guwahati was established totally through indigenous efforts.

In 2001, the University of Roorkee was brought under the IIT family as the seventh such institution. While taking advantage of experience and best practices in industrial countries, India ensured that the "institutions represented India's urges and India's future in making" (Prime Minister Nehru, 1956). The Indian Parliament designated them as "Institutes of National Importance"—publicly funded institutions enjoying maximum academic and managerial freedom—offering programs of high quality and relevance in engineering, technology, applied sciences and management at undergraduate, masters, and doctorate level and offering their own degrees. Student admissions are made strictly according to merit through a highly competitive common entrance test.

Today, the IITs attract the best students interested in a career in engineering and applied sciences. With 4,000 new students selected out of 250,000 applicants every year, the IITs are more selective than the top US Ivy League schools. Several IIT alumni occupy the highest positions of responsibility in education, research, business and innovation in several parts of the world. In 2005, The Times Higher Education Supplement ranked the IITs as globally third best engineering school after MIT and the University of California, Berkeley.

The main strength of the IITs has been their sustained ability to attract the best students and turn them into "creative engineers" or "engineer entrepreneurs." Initially IITs were criticized for their contribution to the brain-drain as about 40% of the graduates went abroad. Today, with the opening and fast growth of the Indian economy, this "weakness" is turning into a big strength for international cooperation and investments. Much of the success of Bangalore, for instance, is attributed to the phenomenon of reverse brain drain.

Source: Salmi, 2009.

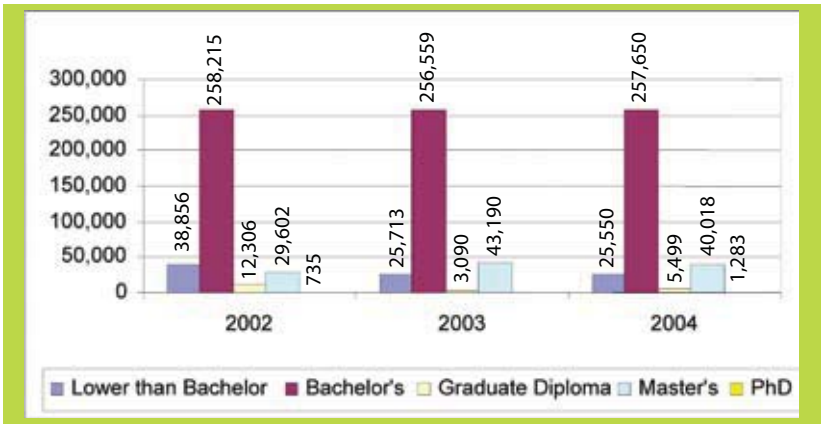
INSTITUTIONAL QUALITY MEASURES

GRADUATION RATES

In 2004, about a quarter million Thai students completed bachelor's degrees, over 25,000 diplomas, approximately 40,000 masters' degrees, and over 1,000 Ph.D. (Figure 4-1). As noted in Chapter 3, the gross enrollment rate for higher education in Thailand is about 50 percent. According to the most recent data available, in the 2002-03 academic year the share of tertiary graduates as a percentage of the population at the typical age of graduation for Thailand was 27 percent. In accordance to enrollment patterns, there are wide disparities

by gender. The male graduation rate was 20.8 percent compared to 33.5 percent for females. The share of Thai youth that attain a college degree in Thailand is slightly below the OECD country average—32 percent (UNESCO, 2005). But is this an adequate output of graduates given existing capacity?

FIGURE 4-1: NUMBER OF GRADUATES BY DEGREE



Source: Commission on Higher Education, 2008

These estimates of university output are largely shaped by the significant share of the population that do not enter a higher education program. They do not quite capture the performance of the higher education system per se. A more useful measure for this purpose is to assess graduation levels in relation to higher education enrollments. As noted in Table 3-1, in 1998, there were approximately 915,000 students enrolled in B.A programs. Six years later, the number of students that attained a B.A degree or higher was 304 thousand. Thus, we can estimate that the college completion rate in Thailand was approximately 33 percent on average. In other words, only one third of students who enrolled in a college degree program graduated within six years. The OECD graduation rate average is 70 percent (OECD, 2007a). It is apparent that there is significant room for improvement in the efficiency of the Thai higher education sector given that a significant proportion of the student body either drops out before graduation or takes many more years than needed to fulfill degree requirements.

HIGHER EDUCATION FACULTY

There are approximately 35 students for each faculty member on average in Thailand tertiary education institutions (Table 4-2). This ratio is much higher than in the Philippines and almost twice that of Indonesia. This gap grows when compared to the mean for OECD countries, where there are approximately 15 students per faculty member.

The common pattern in education systems in low- and middle-income countries is to have larger student teacher ratios at lower levels of education and smaller ratios at higher levels. In Thailand, we observe the opposite pattern. Student staff ratios at primary and secondary levels are practically half of those in tertiary education. Why is this the case? These averages are largely driven by enrollments at open universities, where the average student teacher ratio is 549:1. Limited admission universities have about 15 students per faculty (Boonserm et al., 2003). This is largely comparable with OECD countries.

TABLE 4 -2: STUDENT:TEACHER RATIOS, 2003

	Primary	Lower Secondary	Upper Secondary	Tertiary
Indonesia	23.4	18.8	16.8	18.7
Philippines	34.9	37.2	36.7	22.1
Thailand	**18.5**	**19.5**	**19.9**	**35.0**
OECD Mean	16.5	14.3	13.0	14.9

Source: OECD, 2005

There is gender parity in Thai higher education faculty. The percentage of female instructors has remained stable at around 50 percent, despite a steady increase in the total number of higher education faculty. Given that higher education graduation rates are notably higher for females, it is not surprising that on the whole statistics tend to be positively biased towards women (Table 4-3).

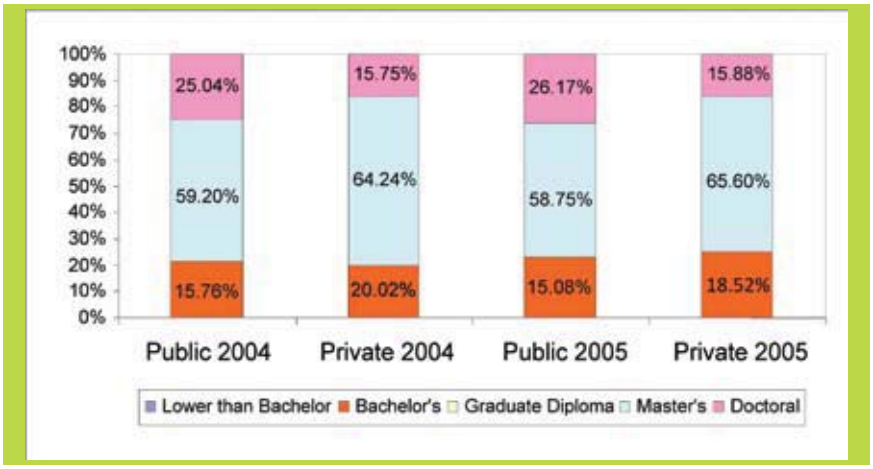
TABLE 4 -3: TERTIARY EDUCATION TEACHERS

	1999	2000	2002	2003	2006
Number of Teachers	50,170	50,639	64,055	65,548	70,405
% Female	53.24	53.73	47.42	47.42	51.47

Source: Edstats, 2008

The majority of tertiary faculty in both public and private higher education institutions in Thailand hold graduate degrees, with about 80 percentage of academic staff holding Master degrees or higher. Public institutions have higher shares of teachers with doctoral degrees than private institutions, possibly as a result of grants and scholarship schemes that Government offers for staff development.

FIGURE 4-2: ACADEMIC STAFF IN PUBLIC AND PRIVATE INSTITUTIONS BY EDUCATIONAL LEVEL



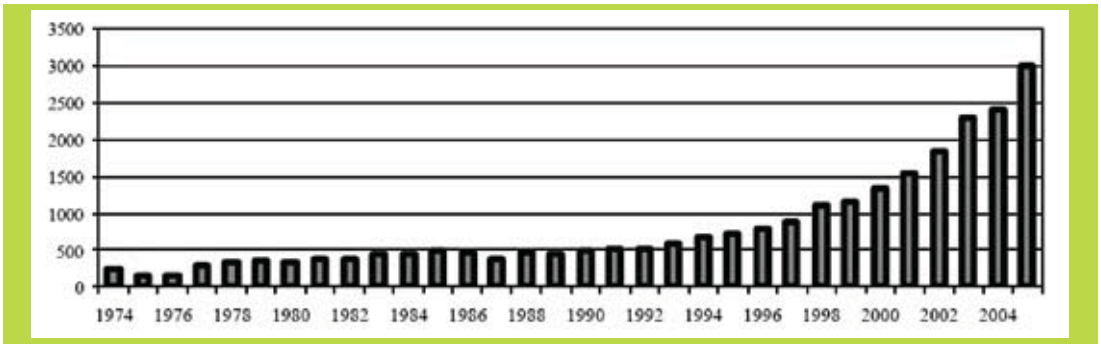
Source: Commission on Higher Education, 2008

According to CHE administrative data, only 1.4 percent of academic staff in public higher education institutions held a full professor position in 2005. The distribution of faculty assignments included 20 percent of associate professors, 36 percent of assistant professors and 43 percent of lecturers. The relatively high proportion of lecturers and the small share of full professors indicate that most institutions focus on student teaching rather than research. The very low percentage of faculty at the rank of full professor may be subject of concern because usually star academics bring prestige to institutions by attracting high quality students and increased external resources, often producing relevant research and publications which appear in international peer-reviewed journals. Such contributions raise the visibility and status of the institution, which in turn raises the status of the system as a whole.

With regards to faculty scholarly output, Thailand has demonstrated substantial progress with regards to number of publications in peer-reviewed journals. According to the

Science Citation Index (SCI), which tracks publications in science journals, Thailand increased its publication significance from less than 500 articles in the mid-1970s to over 3,000 articles per year by 2004 (Figure 4 -3). This trend picked up strength beginning in the mid-1990s. In recent years, there has been a slight shift in the domains of publication, with a slowing trend in the medical sciences and an increasing emphasis on the engineering sciences (Table 4-4).

FIGURE 4 -3: THAI PUBLICATIONS IN THE SCIENCE CITATION INDEX (SCI), 1974–2005



Source: Schiller, 2006

TABLE 4-4: THAI PUBLICATIONS BY SCIENTIFIC FIELD, 1995–2004

Scientific Field	Share of Total			Number of Publications	Thailand's World Share
	1995–97 (%)	1998–01 (%)	2002–04 (%)	2002–04	2003 (%)
Total				2,120	0.30
Agricultural sciences	9.6	8.5	10.0	213	0.50
Medical sciences	54.9	49.8	43.0	912	0.37
Engineering sciences	18.1	21.0	26.3	558	0.33
Life sciences	27.2	28.7	28.4	602	0.39
Natural Sciences	13.0	13.8	18.8	399	0.17

Source: Schiller, 2006

On the other hand, as a share of publications worldwide, Thailand's faculty overall contributions are small, well below 1 percent in all academic fields (Table 4-5). In comparison to other Asian nations, for the period 2000-05, Thailand's average scholarly output per year was less than half of Singapore's production, but close to double that of Malaysia. The number of publications by faculty in China, Korea, and Taiwan was significantly larger.

TABLE 4-5: YEARLY AVERAGE NUMBER OF PUBLICATIONS (SELECTED NATIONS, 1980–2005)

	1980–84	1985–89	1990–94	1995–99	2000–05
Thailand	**394**	**446**	**557**	**926**	**2,059**
Korea	341	1,043	2,756	9,813	21,471
Taiwan	642	1,644	4,326	8,608	13,307
Singapore	253	597	1,142	2,501	5,177
Malaysia	259	298	421	745	1,221
Philippines	237	207	246	329	474
Indonesia	104	141	198	366	524
China (including Hong Kong)	2,694	6,244	10,365	21,205	48,552

Source: Schiller, 2006

The relevance of scholarly research may be assessed by the frequency this work gets cited in other scholarly publications. In this realm, Thailand scores relatively well in all areas of academic pursuit. In most fields of research, Thailand's "impact index" tends to be for the most part—perhaps with the exception of the life sciences—just below the world average (Table 4-6), suggesting that the relatively small number of faculty working on research are quite productive and are contributing meaningfully to global knowledge.

TABLE 4-6: THAI PUBLICATIONS' IMPACT BY SCIENTIFIC FIELD

	World Average (2003)	Thailand (2002-04)
Total	2.373	2.101
Agricultural sciences	1.380	1.060
Medical sciences	2.864	2.793
Engineering sciences	1.153	0.977
Life sciences	2.995	2.190
Natural Sciences	2.154	1.812

Source: Schiller, 2006

QUALITY OF TEACHING AND LEARNING

Traditional educational systems, in which the teacher is the main "source" of knowledge, are ill-suited to equip people to work and live in a knowledge economy. Some of the competencies such a society demands—teamwork, problem solving, motivation for lifelong learning—cannot be acquired in a setting in which teachers convey facts to students whose

main task is to learn them in order to be able to repeat them. A lifelong learning system must be competency driven. Within traditional institutional settings, countries must develop new curricula and new teaching methods to adapt. Anecdotal data from Thailand indicates that teaching and learning approaches in higher education institutions rely primarily on faculty-centered approaches, with limited opportunities for student independent work, problem solving or group projects. Providing people with the tools they need to function in the knowledge economy requires adoption of a new pedagogical model. This model differs from traditional academic approaches in distinct ways, as illustrated in Table 4-7.

TABLE 4-7: CHARACTERISTICS OF TRADITIONAL AND LIFELONG LEARNING MODELS

Traditional Learning	Lifelong Learning
• The teacher is the source of knowledge • Learners receive knowledge from the teacher • Learners work by themselves • Tests are given to prevent progress until students have completely mastered a set of skills and to ration access to further learning • All learners do the same thing • Teachers receive initial training plus ad hoc in-service training • "Good" learners are permitted to continue their education	• Educators are guides to sources of knowledge • People learn by doing • People learn in groups and from each other • Assessment is used to guide learning strategies and identify pathways for future learning • Educators develop individualized learning plans • Educators are lifelong learners. Initial training and ongoing professional development are linked. • People have access to learning opportunities over a lifetime.

Source: World Bank, 2003

While teaching models are often context-specific, a set of aspects of effective learning environments and principles have emerged from various findings that address the skills demands of a knowledge economy. Further empirical evidence needs to provided, but those aspects seem to map the demands of the knowledge economy, and there is a general trend of OECD countries moving into integrating those aspects in their education practices. They can be subsumed under the learner-centered education paradigm that differs from traditional learning settings in that it is customized, knowledge rich, networked, and assessment-driven (Box 4 -2). The growing predominance of interactive teaching methods and active learning, case-based training, simulations, and team project – in short, a problem-oriented curriculum – reflects the need to build cognitive-based and creative capital.

BOX 4 -2: TRENDS OF EFFECTIVE LEARNING ASPECTS AND ENVIRONMENTS FOR THE KNOWLEDGE ECONOMY

Learner-centered teaching

The learner-centered education paradigm is based on the cognitive theories of learners' active involvement in reflection, interpretation and self-evaluation. Knowledge and skills are acquired through exploration, drawing from the real world and applying learning in practice. Learning is social; it occurs in interaction, together with others, debating and creatively changing social practices. Learner-centered education supports deep learning and creativity. A learner-centered environment recognizes that learners acquire new knowledge and skills best if the knowledge and skills are connected to what they already know. Teachers need to know what learners already know and understand before introducing new material. Learner-centered learning allows new knowledge to become available for use in new situations—that is, it allows knowledge transfer and adaptation for a specific context to take place. Aspects include:

1) Customized Learning: Credit hours and time in the classroom may not necessarily be coupled in learner-centered education. Although students with background knowledge and experiences in a content area may quickly master the course material and required skills, others may need more time and additional help. Consequently, students in learner-centered environments will often complete courses at different rates.

2) Knowledge-rich learning, learning by doing and learning by using: Learners ability to transfer what they learn to new contexts requires both a grasp of themes and overarching concepts in addition to factual knowledge as well as their application processes. Knowledge-rich learning thus favors teaching fewer subject areas in depth rather than covering more subjects in less depth. In order to absorb the knowledge and apply it, "learning by doing," and "learning by using" approaches are important ways of using the knowledge and concepts being taught. This kind of learning provides learners with a variety of strategies and tools for retrieving and applying or transferring knowledge to new situations.

3) Inter-connected, net-and team-worked: In a knowledge economy, it becomes paramount to collaborate with other parties and tap into the global stock of knowledge. Also, it is important that learners be able to learn from one another. Giving learners the opportunity to work on joint projects is important for both children and adults. Indeed research has shown that collaborating student groups can accelerate learning. It is furthermore important to link activities inside the classroom with what is happening outside the classroom. Working on real-life problems or issues that are relevant to participants increases interest and motivation and promotes knowledge transfer. Moreover, important sources of information and knowledge exist outside the classroom that learners need to understand and access.

4) Assessment-driven: Assessment-driven learning is based on defining clear standards, identifying the point from which learners start, determining the progress they are making toward meeting standards, and recognizing whether they have reached them. Assessment-driven learning helps the educational system define the instructional action plan, which needs to reflect the different places from which learners start. Education scientists currently experiment with how this approach can be reconciled with the accountability that schools still have to adhere to. However, there is consensus that giving learners—even very young learners—a role in the process of tracking their learning achievements and, especially, engaging them in discussion of the outcomes of these assessments are powerful motivators and tools for improved and independent learning.

Source: World Bank, 2009

QUALITY ASSURANCE PRACTICES

Significant steps have been taken to create a unified quality assurance framework that will review performance of Thailand education institutions. Since the 1999 NEA was promulgated, the quality of education system is officially evaluated both internally and externally. Internally, higher education institutions are expected to conduct self assessments. All institutions are required to implement an internal quality assurance system comprised of control, audit and assessment. Institutions are expected to prepare annual reports which are then submitted to CHE and made available to the public.

External assessments are meant to complement the internal institutional assessment. The NEA established the Office for National Education Standards and Quality Assessment (ONESQA) as the agency responsible for overseeing quality reviews of all higher education institutions at least once every five years. The results of the assessments are shared with relevant agencies and also made available to the public.

The NEA authorizes ONESQA to submit corrective measures and actions for schools that are performing poorly in order to improve their functions. If an institution continues to perform poorly, a report is submitted to CHE for further action. Anecdotal data suggests that the current performance of ONESQA should be strengthened in order to translate monitoring and evaluation into tangible improvements in higher education quality.

The first review cycle took place between 2000-05. Higher education institutions were encouraged to present data from their internal evaluation process, including performance indicators and statistical data collected from institutional review reports. All stakeholders—faculty, students, parents and administrators—were encouraged to participate in the review process. For the second review cycle, now ongoing from 2006 to 2010, a typology with seven dimensions was created to systematize the evaluation process: (a) quality of graduates, (b) research and innovation, (c) academic services, (d) arts and culture preservation, (e) organization and human resource development, (f) curriculum and institutional aspects, and (g) quality assurance system.

As ONESQA looks inward to improve itself and to raise itself to a level comparable to the most sophisticated accreditation systems in the world, it will have to consider how to reincarnate itself so that its activities: (a) continue to be guided by evolving high standards; (b) are forward looking and allow for innovative practice; and (c) address a number of the shortcomings that characterize the present system. A robust accreditation process would necessarily:

- be understandable by and acceptable to all stakeholders
- be fair, transparent, and objective
- involve credible members
- take into account the requirements of training and education, private and public systems
- incorporate feedback loops for continuous improvement and fine tuning
- be simple, manageable, and adaptable as well as efficient and effective
- have built-in mechanisms for ongoing monitoring of its own efficiency and effectiveness

In order for the practices of the Thai Quality Assurance system to be in line with the most advanced international quality assurance systems, it would need to:

- Involve credible peer reviewers including international experts in the external review process of programs. Ensure that individuals involved in the peer review process receive sufficient training for the task at hand.
- Make all quality assurance reports of institutions high quality and publicly available.
- Ensure that the system is fair and efficient, functions without delays, is devoid of unnecessary bureaucracy, does not intrude in the primary activities of universities and does not stymie innovation.
- Assume a more constructive and formative role and ensure that recommendations made by the ONESQA following program reviews are meaningful and possible to implement.
- Build in a system for the review of ONESQA itself, using external and international experts.

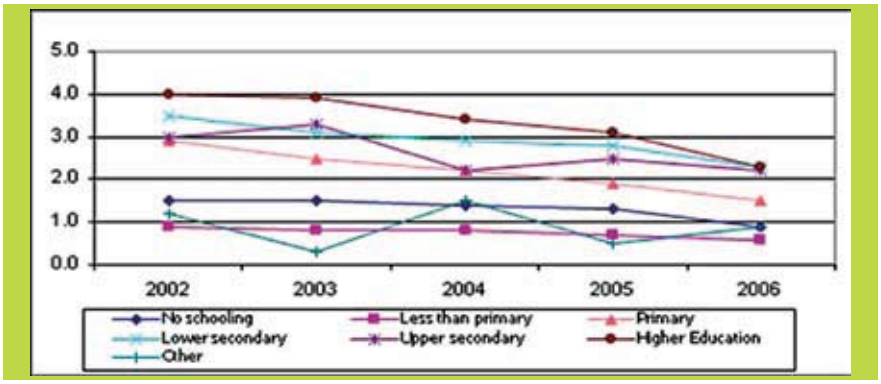
EMPLOYMENT AND THE LABOR MARKET

Another way to evaluate the relevance of the skills and knowledge provided in higher education institutions is through the lens of job opportunities for their graduates. This section presents a series of statistics on the Thai labor market that help illustrate whether graduates are able to get jobs in their areas of training and whether employers are satisfied with the quality of the graduates. It is essential to keep in mind that education is a necessary but not sufficient condition for individuals to enjoy good labor market outcomes, regardless of sector. Besides education, other factors including good labor market opportunities for the skilled require an economy as a whole to be operating well with macroeconomic stability, an attractive investment climate, and efficient labor markets, are all critical. It is of critical importance to adopt a holistic approach to analyzing education-labor market relationships.

EMPLOYMENT RATES

There has been a steady decrease in unemployment rates in Thailand between 2002 and 2006. Figure 4-4 shows the unemployment rates for individuals with different levels of education. Contrary to conventional wisdom, unemployment rates increase by level of education. Individuals with university degrees had the highest unemployment rates, but these rates decreased from 4 percent in 2002 to 2.3 percent in 2006.

FIGURE 4-4: UNEMPLOYMENT RATE BY EDUCATION LEVEL, 2002-06



Source: National Statistics Office, 2008

Unemployment rates of university graduates differ by degree attained. Only 2.6 percent of Ph.D graduates were unemployed in 2000, compared to 30.9 percent of Associate Degree graduates (Table 4-8). The unemployment rate also varies by field of study. A survey report on job searching status of B.A graduates conducted by CHE suggests that students in health and welfare programs had the smallest unemployment rates (7 percent), while science graduates had the highest unemployment rates (40 percent) (Table 4-9). High unemployment rates of science graduates suggest that either there are limited job opportunities in this field and/or graduates have not developed the skills needed by the local economy in these academic programs. High unemployment rates have negative consequences not only for recent graduates, but they can also discourage students from attending science programs and might lead to scarcity of scientists in the future.

TABLE 4-8: GRADUATES BY WORKING STATUS AND DEGREE TYPE, 2000

		Degree Type						
	Total	Ph.D	Master	Graduate	Bachelor	Associate	Por Wor Chor	Certificate
Total	616,399	573	28,138	1,952	213,043	202,167	166,868	3,658
Employed	291,715	558	26,829	1,629	164,349	74,508	23,495	346
Unemployed	144,952	15	1,027	189	36,500	62,510	43,579	1,132
Continue Study	179,732	-	282	134	12,194	65,148	99,794	2,180

Source: National Statistics Office, 2008

TABLE 4-9: EMPLOYMENT STATUS OF B.A GRADUATES BY FIELD OF STUDY, 2002-03

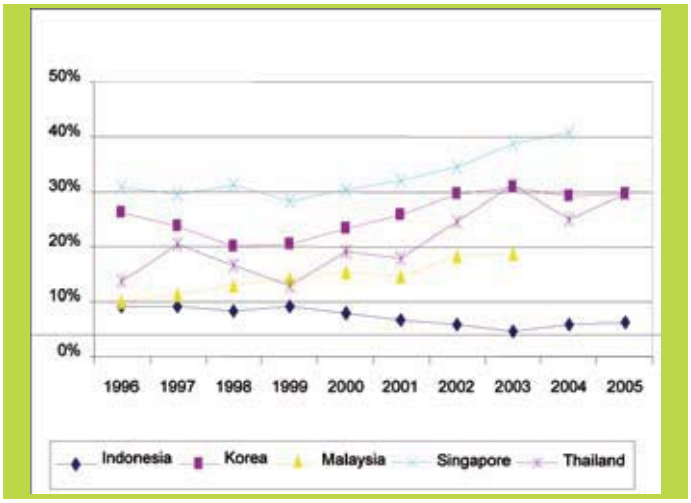
	Total Observations	Employed	%	Unemployed	%
Teacher training and education science	5,111	3,705	72.5%	1,406	27.5%
Humanities and Arts	5,603	3,600	64.3%	2,003	35.8%
Social sciences, business and law	39,460	26,872	68.1%	12,588	31.9%
Science	7,628	4,283	56.2%	3,345	43.9%
Engineering, manufacturing and construction	14,282	8,533	59.8%	5,749	40.3%
Agriculture	4,670	3,121	66.8%	1,549	33.2%
Health and welfare	8,939	8,327	93.2%	612	6.9%
Services	1,844	1,172	63.7%	672	36.4%
Total	**87,537**	**59,613**	**68.1%**	**27,924**	**31.9%**

Source: Commission on Higher Education, Summary Report on Job Searching Status of Graduates in 2002-03

Comparisons with other East Asian countries corroborate a rising trend in unemployment rates for higher education graduates between 1996 and 2005 (Figure 4-5). With

the exception of Indonesia, all other countries surveyed present increasing skilled-labor unemployment rates. Thailand's unemployment rates for higher education graduates increased from over 10 percent to almost 30 percent during this period. After the 1997 financial crisis, however, unemployment rates of high school graduates actually decreased. The main reason for this phenomenon is that the financial crisis put pressure on firms to cut wage costs through hiring younger workers, contract workers, and temporary workers. This reduced the need for more costly, high-skilled workers. The rising trend in unemployment of college graduates in the region may also be explained by an excess of supply of graduates with inadequate skills as well as weak industry development.

FIGURE 4-5: UNEMPLOYED HIGHER EDUCATION GRADUATES AS SHARE OF TOTAL UNEMPLOYED

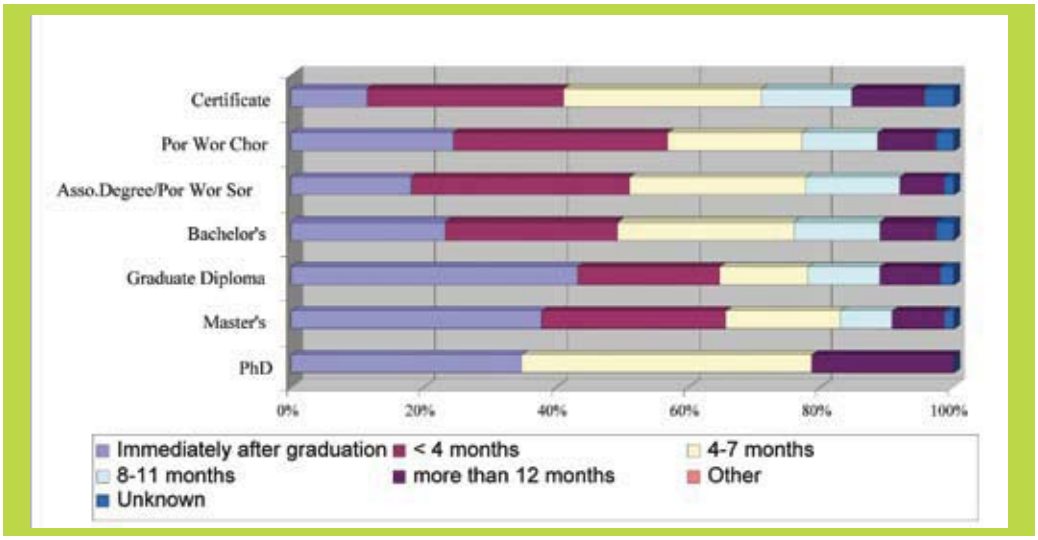


Source: International Labor Organization, 2007

How long does it take for higher education graduates to find gainful employment in Thailand? Figure 4-6 and Figure 4-7 present the time that employed and unemployed graduates require to find a new job. Generally, employed workers with higher education degrees spend less time searching for jobs than workers with less education. About 20 percent of B.A degree holders are hired immediately after graduation and this proportion doubles to approximate 40 percent for workers with graduate degrees. About 60 percent of employed workers with graduate diplomas or Master degrees find jobs within 4 months after graduation. Graduates with an A.A or a B.A need more time to find a job than graduates with a Por

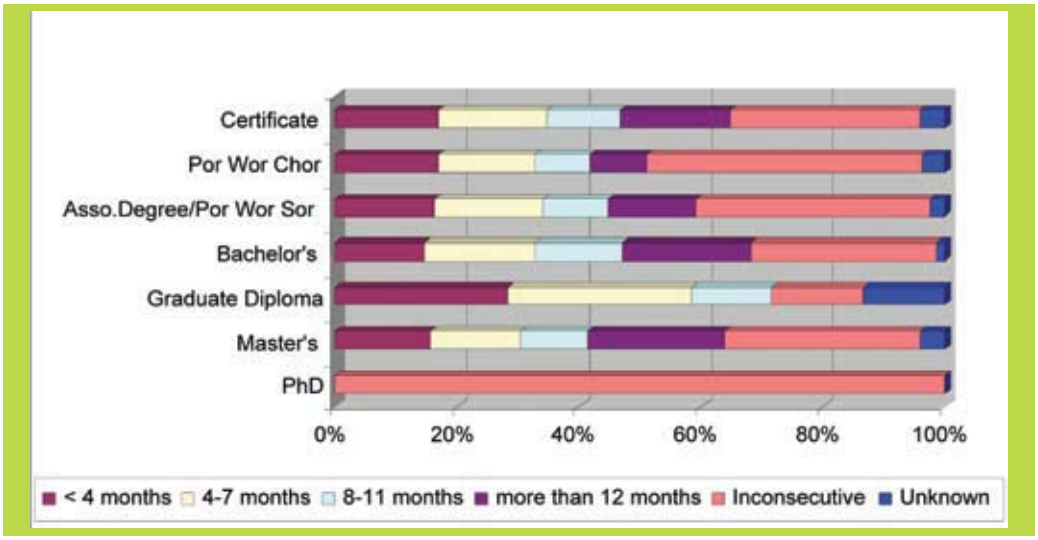
Wor Sor vocational, two-year degree. In contrast, more than 60 percent of Ph.D graduates need between six months and a year to find a new job. This might be the result that these are highly coveted and competitive (as well as somewhat specialized) posts. Doctoral graduates may also be more willing to wait for the "right" job or posts with higher compensation.

FIGURE 4-6: LENGTH OF TIME EMPLOYED GRADUATES LOOK FOR NEW JOBS



Source: National Statistics Office, 2008

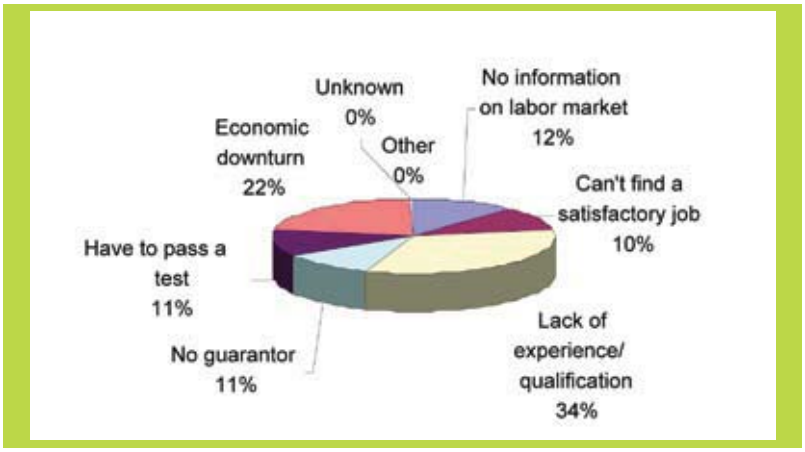
FIGURE 4-7: LENGTH OF TIME UNEMPLOYED GRADUATES LOOK FOR JOBS



Source: National Statistics Office, 2008

Joblessness upon graduation, however, afflicts graduates across the spectrum of degree earners and deserves a closer examination in terms of the relevance of academic degrees on the part of potential employers. According to a survey of new job seekers that recently graduated from a B.A program conducted by the National Statistics Office, the main problem perceived by individuals was weak practical experience and qualifications (Figure 4-8). The second problem most often noted was slow economic conditions and a decreasing number of job openings. Other problems included lack of information about potential jobs and how to get one, an inability to find a satisfactory job, the need for a guarantor, and passing required skills testing. It is clear that some of these problems are grounded in perceptions and may not be root challenges actually, while others could be minimized by improving academic preparation, career counseling, employer outreach and internship opportunities in higher education.

FIGURE 4-8: PROBLEMS IN JOB SEARCHING



Source: National Statistics Office, 2008

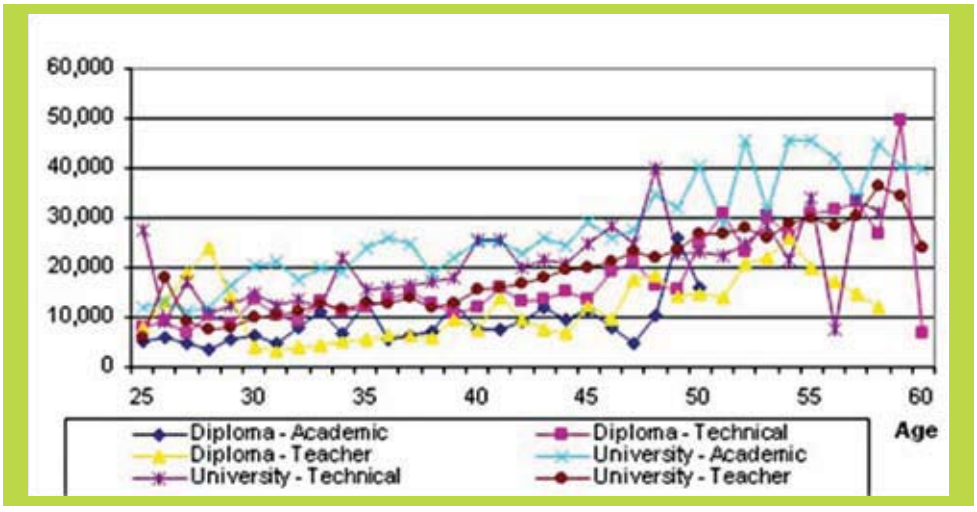
WAGES

Another way to estimate the benefits of pursuing higher education in Thailand is to compare the wages of individuals in different sectors of the economy. As already noted in Chapter 1, the labor market rewards quite substantially additional years of education. The initial average salary for a new employee with Por Wor Sor degree was 6,464 Baht per month, compared to 10,210 Baht for a B.A degree holder, and 16,488 Baht for a M.A degree holder. The initial monthly allowance follows the same pattern, ranging from 955 Baht for Por Wor Sor

graduates to 2,099 Baht for M.A. degree holders. Combined together, the difference in initial income between Por Wor Sor graduates and M.A. degree graduates in the private sector is around 11,000 Baht per month.

On average, wage differentials by educational level become greater over time. Earnings increase with age, reflecting that the labor market compensates workers for additional years of experience. This is the case for all workers, regardless of level and field of education. But higher skilled workers receive a premium for additional work experience than workers with lower educational levels (Figure 1-2). Figure 4-9 presents age-earnings profiles of workers by educational level and field of study. As expected, earnings of workers with university degrees are higher than those of secondary school diploma recipients in the same field. Holders of academic university degrees experience the highest returns, despite some fluctuations, and they are the highest earners for all age groups. The demographic group with more steady increases and lower fluctuations are university degree working as teachers. For diploma holders, technical degrees earn higher wages than academic or teacher related fields.

FIGURE 4-9: AGE-EARNINGS PROFILE BY EDUCATION LEVEL AND FIELD OF STUDY

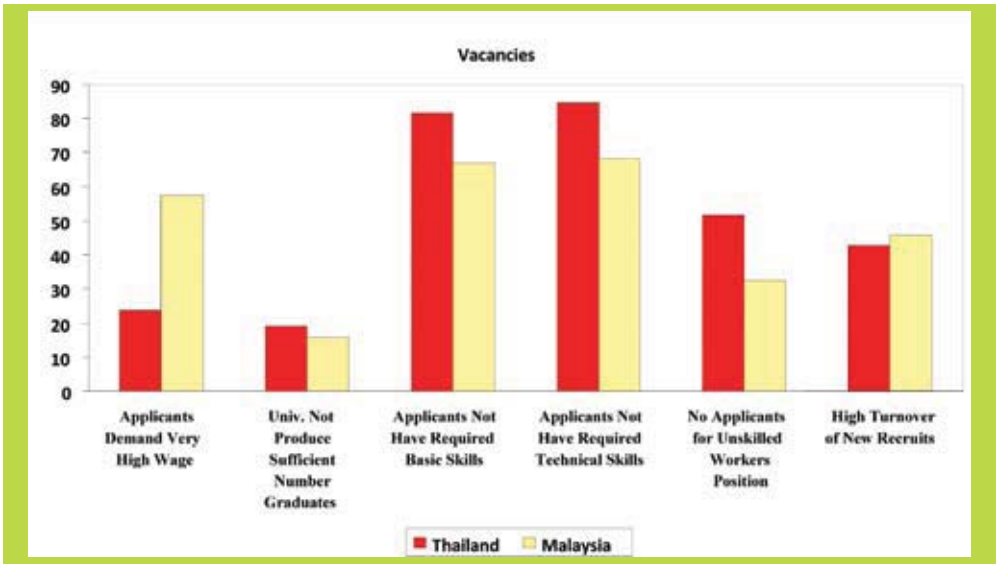


Source: Labor Force Survey, 2005

LABOR MARKET RELEVANCE OF HIGHER EDUCATION SKILLS

According to a survey of firms in Thailand and Malaysia, the main reason for job vacancies is related to the inability to identify applicants with appropriate basic and technical skills. More than 80 percent of companies in Thailand and 70 percent in Malaysia identified insufficient basic and technical skills as the major causes for open jobs. On the other hand, less than 20 percent of firms in both countries points to a lack of applicants as a major factor for vacancies. This finding indicates an imbalance between the quantity and the quality of higher education graduates. As already discussed in Chapter 1, this situation is particularly acute in Thailand where employers are willing to pay a significant premium for high-skilled workers.

FIGURE 4-10: MAIN CAUSES OF JOB VACANCIES (THAILAND AND MALAYSIA)



Source: World Bank, 2006b

Overall, a mixed picture emerges from the demand and supply sides of the economy. The quality of tertiary education is difficult to measure, but different academics and stakeholders have criticized the quality of education of Thai university graduates. No universal definition of quality in tertiary education or agreement on general principles of good practice is available, given the heterogeneity of institutions, programs, and degrees at the tertiary level. Concerns have been raised over the unsatisfactory quality of the young

generation's educational background and their lack of comprehensive knowledge and skills. Universities offer narrowly-specified fields of study, equipping youth with single tasking skills and making them unable to adapt or relate their knowledge to broader contexts.

At the same time, research on university mapping indicates that Thailand has an oversupply of social science graduates while lacking graduates in the fields of science, technology and health sciences (Suwan et al., 2001). As a result, those in oversupplied fields have had more difficulty finding jobs and oftentimes end up working in jobs unrelated to their areas of study. The labor market is willing to award a significant premium to those who exhibit mastery of skills that are in short supply. These findings suggest a significant mismatch between training provided in higher education institutions and skills needed in the labor market.

However, there are also some signs of hope and progress. The University Business Incubator Project is a collaboration between universities and industry to generate new products and innovations. The goal is to train graduate students and to provide them with entrepreneurial skills, as well as the funds necessary to start new businesses. Between 2004 and 2006 there were 15 incubator units set up in universities, resulting in about 75 joint ventures, with 1,000 students and recent graduates participating. The government should continue to provide the enabling conditions necessary to encourage this project and others like it. In a climate of greater competition for students, and fewer subsidies from Government, higher education institutions need to find creative ways of enhancing their academic relevance while also generating additional revenue.