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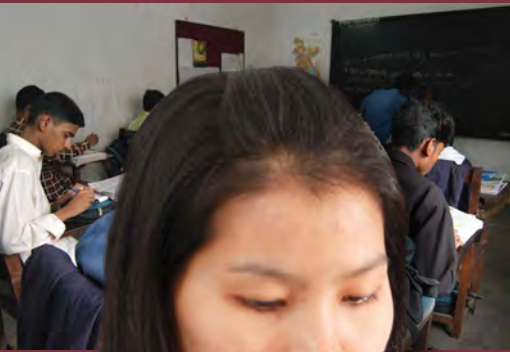
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The Transition from Secondary Education to Higher Education

Case Studies from Asia and the Pacific



**The Transition from
Secondary Education to
Higher Education:
Case Studies from
Asia and the Pacific**

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Foreword

There has been a historic level of public demand for higher education in the Asia-Pacific region in recent decades. This is a result of many factors, including the rapid expansion of basic level of education, the need to respond to the challenges of economic development, globalization, as well as the proliferation of information and communication technology. Consequently, higher education systems have grown substantially in most parts of the Asia-Pacific region. The increasing number of secondary school graduates seeking places in higher education institutions has created a challenge for the screening and selection processes. Policy-makers and the public alike would like to ensure an effective and smooth transition from secondary to higher education for the students, while maintaining the quality and equity of their education. Therefore, appropriate policies for university and college admissions are urgently needed by both developed and developing countries in the region.

In response to this need, members of the Education Research Institutes Network (ERI-Net), a regional network initiated by UNESCO Asia-Pacific Regional Bureau for Education in 2009, conducted a research study on *the Transition from Secondary Education to Higher Education* in 2013, with support from the Korea Funds-in-Trust. An expert meeting was held on 7–8 March 2013 in Bangkok, Thailand, to take stock of existing admission policies and practices in the region, and to develop a common research framework for the preparation of the country/system case studies. We were delighted to have the participation of researchers from Australia, China, Hong Kong SAR (China), India, Japan, Malaysia, the Philippines and the Republic of Korea in the meeting. Their research findings were subsequently shared at the 2013 ERI-Net Annual Meeting held on 17–19 October 2013 in Bangkok, Thailand.

This publication is a collection of these country/system case studies, together with a synthesis report that provides an overview of the university and college admission policies, and their impact on the provision of secondary education in the region. Needless to say, the discussions in the reports touched on many critical issues including the testing and assessment systems, with implications for high stakes college entrance examinations as well as shadow education. I believe that by building on the collective knowledge of researchers from different countries in the region, this publication has provided in-depth insights to assist policy-makers, higher education planners, researchers and practitioners in reviewing and reforming their own systems accordingly.

I would like to take this opportunity to thank all the researchers engaged in this study for their continuous commitment and support to the ERI-Net research activities. I am sure as intellectual sources of UNESCO Bangkok's analytical work, ERI-Net research activities will continue to bring forward-looking, innovative and inspiring visions and solutions for key policy issues faced by UNESCO Member States in the region.



Gwang-Jo Kim
Director, UNESCO Bangkok

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List of Abbreviations

| | |
|---------|---|
| AICTE | All India Council for Technical Education |
| AIEEE | All India Engineering Entrance Examination |
| AIPMT | All India Pre-Medical Test |
| ATAR | Australian Tertiary Admission Rank |
| BE | Bachelor of Engineering |
| BDS | Bachelor of Dental Sciences |
| BRICS | Brazil, Russia, India, China and South Africa |
| B Tech | Bachelor of Technology |
| BTER | Board of Technical Education |
| CAT | Common Admission Test |
| CBS | Centre for Excellence in Basic Sciences Mumbai |
| CBSE | Central Board of Secondary Education |
| CEM | Center for Educational Measurement |
| CGS | Commonwealth Grants Scheme |
| CHED | Commission on Higher Education |
| CISCE | Council for Indian School Certificate Examination |
| CLAT | Common Law Admission Test |
| CMAT | Common Management Admission Test |
| DepEd | Department of Education |
| DOLE | Department of Labor and Employment |
| DSWD | Department of Social Welfare and Development |
| EAMCET | Engineering Agricultural and Medical Common Entrance Test |
| EFA | Education for All |
| ERI-Net | Education Research Institutes' Network of UNESCO |
| FICCI | Federation of Indian Chamber of Commerce and Industry |
| FMS | Faculty of Management Studies, Delhi University |
| GATE | Graduate Aptitude Test in Engineering |
| GCE | General Certificate of Education |
| Go8 | Group of Eight |
| GWA | General Weighted Average |
| HEIs | Higher Education Institutions |
| ICT | Information and Communication Technology |
| IT | Information Technology |
| IIT | Indian Institute of Technology |
| IIT-BHU | Banaras Hindu University |
| IIT-JEE | Indian Institute of Technology Joint Entrance Examination |
| IIIT | Indian Institute of Information Technology |
| IIM | Indian Institute of Management |
| IISc | Indian Institute of Sciences, Bangalore |
| ISEET | Indian Science Engineering Eligibility Test |
| ISM | Indian School of Mines, Dhanbad |
| JEE | Joint Entrance Examination |
| JMET | Joint Management Entrance Test |
| JNU | Jawaharlal Nehru University, New Delhi |
| KEAM | Kerala Engineering Agricultural Medical |
| K to 12 | Kindergarten to Grade 12 |

| | |
|----------|---|
| LGU | Local Government Unit |
| LOTE | Languages Other Than English |
| MBBS | Bachelor of Medicine, Bachelor of Surgery |
| MCI | Medical Council of India |
| MHRD | Ministry of Human Resource Development |
| MP-PET | Madhya Pradesh Pre-Engineering Test |
| NACC | National Assessment and Accreditation Council |
| NEST | National Entrance Screening Test |
| NISER | National Institute of Science Education and Research, Bhubaneswar |
| NIT | National Institute of Technology |
| NCAE | National Career Assessment Examination |
| NCEE | National College Entrance Examination |
| NCR | National Capital Region |
| NCERT | National Council of Educational Research and Training |
| NCTE | National Council for Teacher Education |
| OBC | Other Backward Classes |
| OJEE | Odisha Joint Entrance Examination |
| OP | Overall Position |
| PNU | Philippine Normal University |
| RMSA | Rashtriya Madhyamik Shiksha Abhiyan |
| RPET | Rajasthan Pre-Engineering Test |
| RUSA | Rashtriya Uchhatar Shiksha Abhiyan |
| RTD | Round Table Discussion |
| SAT | Scholastic Aptitude Test |
| SC | Scheduled Castes |
| SEE-UPTU | State Entrance Examination - Uttar Pradesh Technical University |
| SES | Socio-Economic Status |
| SGP-PA | Student Grant in Aid Programme for Poverty Alleviation |
| SSA | Sarva Shiksha Abhiyan |
| ST | Scheduled Tribes |
| STAT | Special Tertiary Admissions Test |
| TESDA | Technical Education and Skills Development Authority |
| TNPCEE | Tamil Nadu Professional Courses Entrance Examination |
| TOEFL | Test of English as a Foreign Language |
| UGC | University Grants Commission |
| UNESCO | United Nations Educational, Scientific and Cultural Organization |
| UNDP | United Nations Development Programme |
| VCAL | Victorian Certificate of Applied Learning |
| VET | Vocational Education and Training |
| VETiS | Vocational Education and Training in Schools |
| WB-JEE | West Bengal Joint Entrance Examination |
| XAT | Xavier Aptitude Test |

Synthesis Report of the Case Studies on the Transition from Secondary Education to Higher Education

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On behalf of the ERI-Net secretariat, I would like to congratulate all presenters on their informative and inspiring case study presentations on the topic of the transition from secondary education to higher education. From the presentations we can see much diversity in terms of driving factors, policy priorities and concerns, institutional arrangements and subsequent reforms. While we value diversity and see it as an asset rather than an obstacle to information sharing, international cooperation and capacity building among different systems, it is also important to identify some of the key issues and commonalities documented in the case study reports so that national or jurisdictional experience can be translated into regional expertise. This will ensure that UNESCO's future involvement in this area can be informed by the best policies and practices of the member states in this region.

According to the research framework formulated and agreed at the expert meeting in Bangkok in March 2013, the focus of this research is on university and college admission policies and their impact on the provision of secondary education. All the case study reports adhered to the framework and provided rich insights into the major concerns, policy responses, and future challenges experienced in their respective national or jurisdictional contexts.

The significance of this research topic – the transition from secondary education to higher education – is duly reflected in the case studies through their admission policies being linked with many important principles, such as social inclusion, national solidarity, equity, relevance, quality, transparency and so on. University and college admission policies have also been regarded as important tools to increase the competitiveness of higher education and to help promote cross-border student mobility, as demonstrated in the case studies of Australia and Hong Kong SAR (China) where admission criteria for international or non-local students are well developed and implemented.

With particular reference to student mobility, there are major sending and receiving countries in this region and member states may explore the potential of establishing separate or integrated mechanisms for recruiting international or non-local students. In this regard, the recognition of secondary school leaving certificates and other diplomas is an important issue that can be supported through the development of a regional framework connected to the existing UNESCO-initiated Asia-Pacific Regional Convention on the Recognition of Qualifications in Higher Education.

There are substantial differences in the nature of university and college admission systems among participating countries and jurisdictions. Some systems are very centralized with specific government authorities steering the development and implementation of the admission policies and procedures, as illustrated in the case study reports of China and Malaysia. There are also systems where universities retain their autonomy in stipulating their own minimum entry requirements and administering their own recruitment procedures, as can be seen in Australia, Hong Kong SAR (China) and the Philippines. However, no clear dichotomy between the two groups can be deciphered, as many traditionally centralized systems like China, Republic of Korea, Thailand and Malaysia have started granting top universities more autonomy to decide their own admission policies. At the same

time, autonomous universities in traditionally decentralized systems like Australia are increasingly required to comply with admission-related national or federal regulations. The introduction of an admission officer system in the Republic of Korea is an example of greater university autonomy in recruiting students based on comprehensive assessments. In the Philippines, attempts are being made to move towards a more unified university admission platform, instead of each university administering its own admission system. India has recently proposed to have one common entrance for all professional education programmes. It can be argued, therefore, that regulated institutional autonomy with regard to the admission policies is becoming a convergent trend in the countries in this region.

As for the admission criteria, it is clear from the case study reports that standardized tests are the major tools for selecting or screening students for entry into universities and colleges. As high-stake college entrance examinations (Gaokao/Centre Shiken/Suneung) become more standardized, their results remain the most important criteria for university admission in China, Japan and the Republic of Korea. In other countries, subject-based testings mainly take place in the final year of secondary education and the results are reflected in secondary school leaving certificates and other equivalent diplomas (e.g. Board Examinations in India; ATAR in Australia; CGPA in Malaysia; HKDSE in Hong Kong SAR; and GPAX in Thailand). Students usually take external scholastic aptitude tests as well which can be subject-based while focusing more on generic and higher order thinking skills (HOTS), such as critical thinking, problem solving, communicative and collaborative skills, etc. At the same time, the case studies also indicate that there are growing calls in the region for the admission process to be based on a broader set of criteria that cover not only the cognitive aspect of learning, but also the non-cognitive components, such as school records, extra-curricular activities, community engagement and so on. The Chinese experience of introducing students' progress portfolios based on teachers' daily observations and records can be regarded as an example of broadening the criteria base for university admission. Similarly, in the Republic of Korea, students' school records are integrated into the admission criteria. In Malaysia, students' extra-curricular engagement activities carry 10 per cent weightage in the final admission results. In Hong Kong SAR (China), in addition to academic requirements, personal qualities such as leadership, communicative skills, creativity and interactivity are important parts of the admission eligibility.

The case studies indicate that social inclusion and national solidarity are among the most important objectives when developing or revising university and college admission systems. This is especially true in countries with multicultural and heterogeneous populations. Malaysia used to have an ethnic quota system which allocated 55 per cent of university places to Bumiputeras (Malays) and the remaining 45 per cent to other races. This system was subsequently replaced by a meritocracy system in 2003. Again in Malaysia, starting from 2013, all higher education institutions are required to allocate 100 places of their annual intake to students from the bottom 40 per cent of low income families. Similarly, India has established a system that reserves places for students from low socio-economic backgrounds and other disadvantaged groups. In China, special admission arrangements have been made to recruit students from disadvantaged backgrounds, including the latest national initiative which targets students from 832 poverty-stricken counties. In Australia, alternative admission arrangements are in place to cover a wide range of disadvantaged people, including indigenous Australians and applicants from low socio-economic backgrounds. In the Thai system, each university sets aside a number of places for students from the provinces. In addition to the quota system, other affirmative actions to benefit more disadvantaged groups and marginalized people include: enhanced financial support, ear-marked scholarships and separate admission arrangements.

Engaging all stakeholders in the development of admission policies is of critical importance to the achievement of relevance, inclusiveness, quality, transparency and preparedness of students for college life, and thus contributes to a smooth transition from secondary education to higher

education. The Republic of Korea's commitment to promoting and enabling collaboration and communication among three major stakeholders of high schools, colleges, and the government has proven to be useful. In the case of Malaysia, public universities usually invite comments and inputs from industry and local communities when they develop their admission criteria. It will be valuable for other countries and systems to include and examine this important policy domain so that more successful experiences can be shared.

The diversification of higher education programmes requires corresponding diversification of secondary education programmes, especially at the senior secondary education level, so that students with different talents and aptitudes can be well prepared to enter into different kinds of higher education. This is another important policy domain that can enhance the smooth transition from secondary education to higher education. Diversifying admission mechanisms and developing flexible and multi-entry admission systems can be the key policy interventions for member states to consider. Australia and India have separate admission systems for higher professional education programmes. Efforts to diversify the provision of secondary education have already been made in the Republic of Korea. In Japan, the admission policies have been shifted from knowledge-intensive screening to mutual selection. Efforts are being made to strengthen students' career guidance systems. The aim is to enable students and parents to make informed decisions when they choose their undergraduate study programmes. In the case of Hong Kong SAR (China), an increase in student advice centres and career counselling services has been proposed as a response to the increasing diversification of higher education programmes.

Another area that requires attention is the establishment of a National Qualifications Framework. It can serve as a single set of progressive benchmarks in knowledge, skills, competences, values and attitudes, to connect different levels and types of education programmes vertically and horizontally in a holistic manner. It is very much hoped that Malaysia and the Philippines can provide more information in this regard, as the former has already developed the Malaysia Qualifications Framework (MQF) and the latter is in the process of developing the Philippines Qualifications Framework (PQF).

The impact of university and college admission policies on the provision of secondary education continues to be a major concern in many countries. Although substantial efforts have been made to broaden the admission criteria and diversify the admission arrangements, academic achievements remain the most important factor for university admission decisions.

One of the most pronounced consequences of this is the emergence of a culture of teaching for tests in secondary schools, which can be observed in: a shrinking of the school curriculum to the core subjects while other subjects are marginalized, as indicated in the case study reports of Australia, China, India and Thailand; long school days for extra sessions and excessive loads of homework for students in China; added stress and demotivation of students in India; increased teachers' workload in the Republic of Korea and other countries; reluctance to adopt classroom innovations towards more student-centered pedagogy and assessment, as indicated in the case study report of Australia, and so on.

The second pertinent impact is the rise of the so-called shadow education in the forms of private tutoring programmes and extra coaching, which has emerged as a result of intense competition for university places, especially for entry to prestigious universities and the most demanding study subjects and programmes. According to a survey conducted by Malaysia, 89 per cent of the students surveyed have attended at least one private tutoring programme. This phenomenon can be spotted in almost all the case studies and is believed to distract teachers from their normal duties at schools, add to the financial burden on parents and even worse, exhaust students' learning potential.

Of course there is no 'one size fits all' solution to these complex and diverse issues, as every higher education system has its own tradition and operational environment. However, a regional conceptualization of the main policy issues concerning the transition from secondary education to higher education can provide an analytical and dynamic regional framework for member states to refer to when they develop or renovate their own systems. As such, UNESCO Bangkok will remain committed to collecting and disseminating examples of innovative policies and practices in this area.

Australian University Admission Policies and Their Impact on Schools

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Introduction

This paper outlines university admission frameworks in Australia and considers their impact on school leaver destinations, using administrative data from a selection of state education departments. In Australia, a federation of six states and two territories, universities are federally-funded and operate within a predominantly federal framework of legislation and administration. School systems, however, remain within the jurisdiction of the individual states and territories. For this reason, while the policy framework for university admissions is considered in the federal context, the consideration of school leaver destinations data is based on administrative data collected by state education authorities.

University Admission Policies

Admission policies are the archetypal university gatekeeper policy as they govern selection into university. All public and private Australian universities have formal admission policies, available publicly in university-specific online policy repositories. These policies are referred to variously as admissions, selection and entry policies and procedures. In addition, many Australian universities articulate admission-related principles in delegated legislation reflecting historical arrangements,¹ alongside current risk mitigation strategies whereby principles potentially subject to legal recourse are maintained in university delegated legislation.

Australian university admission policies must comply with government legislation² and codes and standards³ concerning domestic and international higher education students, grievance procedures, equity, privacy and discrimination. Australian universities must also comply with federal government legislation⁴ which explicitly requires that admission criteria are appropriate to the course, selected applicants 'have adequate prior knowledge and skills to undertake the course of study successfully',⁵ English language proficiency requirements and credit arrangements are established, and admissions-related delegations are appropriately authorised and exercised by suitably qualified staff.

Admission policies are high profile; they directly relate to university reputation regarding teaching, learning and research as entry requirements display and serve to uphold university academic standards. Marginson et al. (2013) suggest that 'university faculties want to attract the highest scoring students so as to maximise the university's market position'.⁶ Admission policies also reflect university strategic objectives regarding social inclusion and specific student markets (for example, international students). As an outwards facing policy, admission policies translate university strategy

1 Since the higher education sector reforms initiated by John Dawkins, the then federal education minister (1987–1992), Australian universities have developed suites of university policy and have concurrently moved principles from delegated legislation into policy texts.

2 This includes the *Higher Education Support Act 2003*, *Education Services for Overseas Students Act 2000*, state and territory privacy legislation, and *Disability Discrimination Act 1992*.

3 This includes the *National Code of Practice for Registration Authorities and Providers of Education and Training to Overseas Students 2007*, *Disability Standards for Education 2005* and *National Standards for Foundation Programme* for non-award foundation programmes being placed on the Commonwealth Register of Institutions and Courses for Overseas Students (CRICOS).

4 See the *Higher Education Standards Framework (Threshold Standards) 2011*.

5 Ibid. section 3.

6 Marginson, Tytler, Freeman & Roberts, 2013, p. 14.

for audiences including prospective students, education providers (school, vocational education and training, higher education), tertiary admissions centres, industry and the broader public. As such, formal admission policies are inexorably linked with a myriad of related principles, processes and reputational considerations.

Fundamentally, the objective of admission policies is to select applicants with potential to succeed in university studies,⁷ with reference to university-specific academic standards. Admission policies embody the concepts of merit-based selection and equitable treatment; applications are competitive, ‘tempered with equity considerations’.⁸ Furthermore, admission policies aim to facilitate government policy and university strategy, perhaps best currently exemplified by social inclusion objectives. Admission policies and related course approval documentation establish university entry requirements. This includes: university-wide minimum entry requirements and selection criteria (general, minimum age, minimum academic requirements and equivalences);⁹ course-specific minimum entry requirements and selection criteria (prerequisites,¹⁰ specific minimum and ‘Clearly-in’ Australian Tertiary Admission Rank [ATAR] scores¹¹ and methods); additional application requirements where necessary (portfolios of creative work, interviews, auditions, statement of interest, specialised tests),¹² and English language proficiency entry requirements^{13,14}. Entry requirements are established for both domestic and international applicants. In some instances, minimum entry requirements may be achieved through alternative means, such as completion of a bridging programme, vocational pathway, or Special Tertiary Admissions Test (STAT).

The federal government’s *My University* website,¹⁵ launched in 2011, publishes eligibility criteria including cut-off scores (that is, minimum ATAR scores and Overall Position [OP] scores for Queensland applicants). Tertiary admissions centres publish Clearly-in ATAR scores from the previous year’s selection as a guide to university and course-specific eligibility criteria, which in most instances will be higher than the published cut-off scores. Universities publish entry requirements for all courses, including minimum ATAR scores, where applicable. Entry requirements are developed through university-specific course development and approval processes, and authorised by university approval authorities.^{16,17} In addition to university-wide minimum English language proficiency entry requirements, individual faculties or schools may establish higher requirements. Federal government legislation applies to international applicants on entry (for example, in relation

7 For example the Monash University *Admission to Coursework Courses and Units of Study Policy* states that ‘Monash University aims to attract, select and retain a diverse range of the most capable students. To achieve this Monash has established ... University minimum admission requirements that seek to ensure that all commencing students have satisfied standards that *demonstrate the potential for success in higher education studies*; [and] Additional course specific admission requirements set by faculties to seek to ensure that commencing students have the appropriate academic knowledge and English language skills required for *potential success in a particular study program*’ (2010, p. 1) (emphasis added).

8 Monash University, 2010, p. 1.

9 Universities establish equivalencies for out of state senior secondary certificates, and international qualifications. In terms of international qualifications, universities may refer to resources from the National Office of Overseas Skills Recognition within the Australian Education International (AEI-NOOSR).

10 The Griffith University *Undergraduate Programs Admissions Policy* states that ‘In considering the case for Year 12 subjects as admission pre-requisites, the following factors should be taken into account: the relationship between the programs’ first year curriculum and the knowledge and/or skill provided by the year 12 subject; the requirements of the relevant professional bodies; the likely effects on potential applicants ...; equity considerations; the prerequisites for similar programs in this and other universities; special provisions for those without the pre-requisites such as bridging programs’ (2013, p. 6).

11 Differential requirements are established for school leaver and mature entrants.

12 Such as the Graduate Australian Medical Admissions Test (GAMSAT) or Medical College Admissions Test (MCAT).

13 There are a number of tests to assess English language proficiency; individual universities establish specific requirements for acceptable tests, which may include one or more of the following: International English Language Testing System (IELTS), Test of English as a Foreign Language (TOEFL), International Second Language Proficiency Rating (ISLPR), Cambridge Certificate in Advanced Education (CAE), Cambridge Certificate of Proficiency in English (CPE), Pearson Test of English Academic (PTE Academic).

14 Marginson (2013) suggests, with respect to English language proficiency testing, that ‘the historically inherited approach ... at least in relation to international students (local students with [English language proficiency] issues were and are largely unrecognized) is simply to set a test barrier at the point of entry and expect students to take responsibility for their own language-related development’, noting that some reforms have occurred in the last decade with respect to language development.

15 See <http://myuniversity.gov.au>

16 Dual sector universities determine entry requirements for vocational education and training courses in accordance with university-specific course approval processes, in conjunction with state/territory accreditation authorities as required.

17 Many university Admissions Policy texts explicitly note that Academic Board has authority to determine and waive entry requirements in certain circumstances.

to student visas), and professional association or registration board requirements may apply on entry to the profession (for example, in relation to police checks), although the latter may influence the applicant rather than university decisions.

Australian universities may establish a quota – or cap – on the total number of university students or the number of applicants admitted to any particular course, in any year. Australian universities may also establish sub-quotas for prescribed groups, for example, for Indigenous Australians. Quota determinations reflect federal government policy supportive of universal higher education (for example, introduction of the demand-driven system from 2012 whereby caps on Commonwealth Grants Scheme (CGS) funding for bachelor's degree programmes¹⁸ were removed), outcomes of reviews (for example, the *Review of Australian Higher Education: Final Report*¹⁹ and subsequent equity targets), and availability of requisite teaching staff, facilities, student services and work integrated learning placement opportunities.

Three key challenges have been identified for Australian university admission policies, and these are operationalised through selection: 'ensuring fairness and transparency in student selection; identifying the potential for student success in higher education; and improving equity of participation and equality of educational opportunity'.²⁰ University selection decisions are based on an assessment of applicant potential to succeed, which in most instances is evidenced by prior educational achievement. Selection for undergraduate courses is generally based on a ranking derived from senior secondary certificate results²¹ (that is, the ATAR) and demonstrated achievement of relevant requisites (prerequisites, recommended senior secondary subjects, and assumed knowledge). The *Review of Australian Higher Education: Final Report* found an over reliance on senior secondary certificate results and subsequent ranking scores, suggesting this led to 'a replication over time of the student profile'.²²

In terms of the relationship between admission ranking scores and potential for success, prior academic achievement is a predictor of academic success,²³ particularly for high achieving applicants. Undergraduate student progression data suggests that high academic achievement in senior secondary studies is a good predictor of undergraduate academic success, whereas middle band results are less reliable predictors.²⁴ Murphy et al. (2001) found that 'a lower [secondary school] entrance ranking than is sometimes considered appropriate for university is not a barrier to success', and 'an over-reliance on secondary school performance for selection purposes will exclude many potentially successful applicants'.²⁵

Course or discipline-specific prerequisites are developed with a long lead time to allow secondary students to make informed curriculum decisions. Common prerequisites include mathematics, chemistry, physics and English. In recent years, Australian universities have relaxed prerequisites²⁶ – particularly advanced mathematics and science prerequisites – in response to declining school student participation in advanced mathematics and sciences.²⁷

Alternatively, applicants may apply for various university-specific access schemes whereby evidence of academic achievement is supplemented by information derived from other sources. These alternative approaches are undertaken with a view to determining applicant potential to succeed,

18 Other than Medicine. The number of federally supported postgraduate courses remains limited.

19 Bradley, Noonan, Nugent & Scales (2008).

20 Palmer, Bexley & James (2011, p. iii).

21 International Baccalaureate qualifications and non-school leaver admissions applications are converted to an equivalent ATAR score to facilitate university selection decisions.

22 Bradley et al. (2008, p. 38).

23 Birch & Miller (2005).

24 Palmer et al. (2011).

25 Murphy, Papanicolaou & McDowell (2001).

26 Marginson, Tytler, Freeman & Roberts (2013).

27 AMSI (2012).

not only in their course, but in the profession for which their course will qualify them. Where course entry is competitive, such approaches generally result in a selection score for applicant ranking purposes. Access schemes utilize other *selection methods* testing aptitude and preparedness (portfolio, interview, audition, residency requirement) and *selection information types* identifying broader attributes (relevant work experience, reasons for pursuing study, additional written submission). Whilst research regarding such methods and information types as predictors of success reveals varying levels of efficacy,²⁸ the *Review of Australian Higher Education: Final Report* recommended greater use of such selection criteria by Australian universities in admission processes, as did the previous federal government review of Australian university selection criteria.²⁹

Admission policies may also establish alternative access pathways for applicants with a demonstrated disadvantage, including individuals able to demonstrate that their academic performance was adversely affected through a medical condition, disability, family circumstance, war or military service, English language learning difficulty, or serious financial hardship. Alternative entry pathways are also available for identified applicants facing systemic disadvantage including applicants from designated disadvantaged metropolitan, rural or isolated schools (using school-based criteria); Indigenous Australians; applicants from a low socio-economic status [SES] background; or applicants seeking admission on the basis of the Special Tertiary Admission Test [STAT]. Furthermore, Palmer, Bexley and James (2011) report that 'students admitted through special entry programmes have rates of retention and success that are broadly comparable to those of other students'.³⁰

Such strategies are imperative to further social inclusion agendas, as prior academic achievement as required by "mainstream" university selection decisions is correlated with equity-related factors such as socio-economic status: 'selection strategies based solely or predominantly on rank derived from secondary school achievement will work against efforts to promote diversity of participation over time, unless additional steps are taken'.³¹ Some admission policies establish preferential admissions systems for high achieving applicants, for example by providing bonus points (for ranking purposes) for applicants with senior secondary advanced mathematics, physics, biology, chemistry or Languages Other Than English (LOTE).

Depending on the course type, applications are submitted either to the university or another authority. In most instances, undergraduate course applications from year 12 completers are submitted directly to the relevant state/territory tertiary admissions centre,³² which ranks the applications in accordance with university-wide, course specific and special access programme requirements.³³ Other applications – such as postgraduate coursework and research – are generally submitted directly to the university, which assesses and ranks applications again in accordance with university-specific entry requirements. Normally, the highest-ranked, eligible applicants for undergraduate courses are offered places in their first preference courses – subject to satisfaction of quotas, after which other applicants are considered for second – and potentially subsequent – preference(s). Admission decisions can be made by selection committees or selection officers. Admission policies may establish the

28 For example, see Siu & Reiter (2009) for a discussion regarding the predictive validity of interviews; Ferguson, James, O'Hehir & Sanders (2003) regarding admissions essays and Papadakis & Wofsy (2010) regarding personal statements.

29 Andrich & Mercer (1997); Pascoe et al. (1997).

30 Palmer et al. (2011, p. 27).

31 Ibid., p. iii.

32 Approximately 80 per cent of applications from year 12 completers are processed by state/territory tertiary admissions centres (DEEWR, 2008).

33 These processes vary between universities. For example, the application process may vary where there are third parties (agents) or other education partners involved, or where industry training agreements are established for VET programmes. In some instances, dual sector universities have established guaranteed entry arrangements for vocational courses articulating into higher Australian Qualifications Framework (AQF) level courses.

composition and terms of reference for selection committees,³⁴ which may be specific to course type (undergraduate, postgraduate coursework, postgraduate research), discipline or specialised cohort (domestic, international). Selection committees (or selection officers) determine the eligibility of applicants, and rank eligible applicants. University Academic Boards monitor academic standards through course reviews and consideration of statistical admissions and enrolment data.

The *Review of Australian Higher Education: Final Report*³⁵ recommended the adoption of a target of 40 per cent of 25–34 year olds with bachelor-level qualifications, and a target of 20 per cent of higher education enrolments comprising low SES background students by 2020. Subsequently, the federal government introduced the demand-driven³⁶ system – effective 2012 – with Commonwealth Grants Scheme (CGS) funding flowing to Australian universities for all undergraduate enrolments.³⁷ Accordingly, Australian universities were concurrently supported to increase the total number of offers and enrolled undergraduate students, and proportion of students from low SES backgrounds.

The Group of Eight (Go8) suggest that the introduction of the demand-driven system – where it results in the removal of quotas – removes ‘the rationale for rationing places on the basis of competitive exams, relative merit and ability to benefit’³⁸ and anticipates that ‘as the demand-driven system evolves, admissions will presumably become more diverse’.³⁹ Following the introduction of the demand-driven system, many Australian universities increased offers to eligible applicants and substantially increased student enrolments.⁴⁰ University recruitment efforts targeting students with low ATARs increased,⁴¹ as did the number of offers made to applicants with low ATARs.⁴² Concurrently, concerns were raised regarding academic standards. The Group of Eight initially proposed the introduction of a minimum ATAR score (60).⁴³ However, the Go8 recently suggested that such a move represented ‘too blunt an instrument’,⁴⁴ stating that: ‘A more deliberate approach to equity and access, combined with a sharper focus on diverse and appropriate admissions procedures and effective student support services to maximise students’ success would contribute more to higher education equity than simply removing the sector’s front gates’.⁴⁵ It remains to be seen whether the incoming government will maintain the demand-driven system, reintroduce caps on undergraduate enrolments, or give the universities greater capacity and flexibility in setting fees, in terms of the social inclusion agenda and university admission policies.

Implications for Schools

These policies show clearly the relationship between the senior secondary certificates offered in the schooling sector and university admission practices. While universities may use a range of data other than senior secondary certificate examination results to select applicants, as discussed above, there is a heavy dependence on the results students achieve in these certificates to rank and select the large numbers of applicants for admission. This practice has a long history.

34 For example, the Curtin University *Admission and Enrolment Manual (Coursework Students)* (2012) establishes the responsibilities of the University Admissions Committee, including: recommending variations to policy, monitoring compliance with minimum entry standards and credit policy, recognising other institution’s qualifications and results, and approving exceptions (p. 7).

35 Bradley et al. (2008).

36 Australian Government (2009).

37 Other than medicine.

38 Go8 (2012, p. 3).

39 Ibid.

40 Norton (2013).

41 King & James (2013).

42 Ibid.

43 Mather (2013).

44 Go8 dumps minimum ATAR plan (26 August 2013).

45 Teece (2013, p. 2).

Secondary schools based on the teaching of Latin and Greek (and usually conducted in the instructional medium of the Latin language) were founded during and after the Renaissance throughout Europe and remained largely unchanged and unchallenged until the mid-eighteenth century. It is important to understand that attempts to modernize school curricula to meet emerging needs for technological and administrative literacies not conferred in the schools of the classical (lyceum/gymnasium) type historically have been met with considerable resistance by the universities.⁴⁶

The growth of non-classical grammar schools in late 18th century Germany, for example, was abruptly stopped when an 1812 reform of the Learning Examination decreed that only the classical (Gymnasium) schools could prepare secondary school students for university. Not until 1901 were schools other than those teaching the classical curriculum mandated to perform a university-preparatory function, finally allowing the *Realgymnasium* (with a semi-classical curriculum) and the *Oberrealschule* (modern languages and sciences) to exist side by side with the Gymnasium, although the opposition of the 'mandarins' (the academic guardians of orthodoxy) to the modernization of the secondary school curriculum (and to that of higher education) would continue for at least another thirty years.⁴⁷ Similarly, in France, the *écoles primaires supérieures* were established, largely by municipal bodies, to provide alternatives to the classical studies of the *lycées*, but there was a strong perception that these schools were of a lower status as they did not confer upon students the privilege of entry to university.⁴⁸ In England, a similar story may be told. The great public schools and the grammar schools provided a classical studies curriculum very much in the Continental style. Despite broad recognition that these schools were neglecting the mathematics and sciences, they used their connections with Oxford and Cambridge universities to cement their status and influence, while alternative approaches failed to attract the support of the state.⁴⁹ Attempts to establish modern secondary schools, which would teach the sciences in place of Ancient Greek, foundered upon the universities' refusal to consider selecting students who had not studied Greek at school.⁵⁰

In all these nations, the university-controlled examination systems ensured which aspects of the secondary school curriculum would thrive and which would not. Again, as in France and Germany, it was not until the beginning of the 20th century that serious state involvement in secondary education in England (through the Education Act of 1902) enabled the establishment of public secondary schools with a broader non-classical curriculum. These new schools were now able to include modern languages and the sciences in their curriculum, although the classical tradition continued to demand higher prestige and most in fact continued to teach Latin too. In Italy, the birth of a modern *liceo* (grammar school), which departed from the classical curriculum and taught sciences, finally occurred in 1911, but even then, a status differentiation remained, with the classical studies school allowing access to all university faculties, while the scientific one allowed access only to related university faculties (mathematics, science, engineering, etc.).

It can be seen that the monopolistic sway of universities has a long history. In addition, the location of separate VET provision within the binary structures of school administration which have developed over the last century in most countries has established a division of labour between those schools teaching students destined for university and those teaching students destined for an expedited entry to the labour market. This is accompanied by continuing evidence of status differentiation between these two types of schools and of continued social selectivity in their intakes – see Ringer (2000) or Benadusi (2007) for example – reflecting patterns of occupational and status differentiation which have been evident in European secondary schooling structures since their inception.

46 Polesel (2007).

47 Ringer (1969).

48 Good (1960).

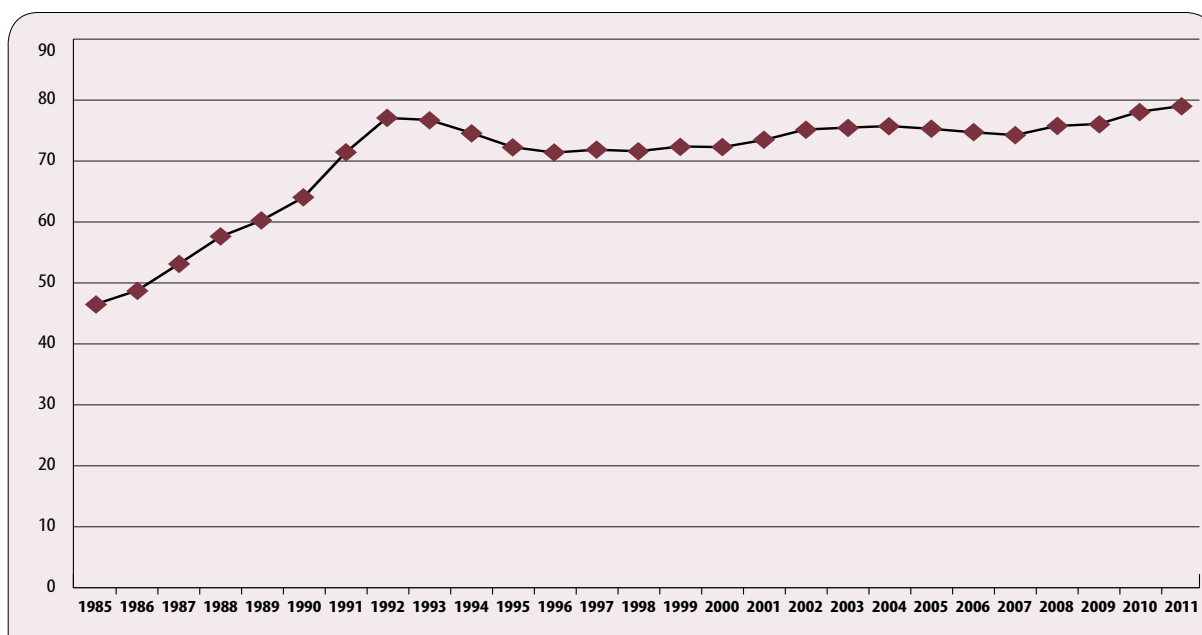
49 Roach (1986).

50 Roach (1991).

The content of the vocational curriculum and its relationship to general or academic secondary programmes have provided a further source of friction. While the academic curriculum has been subject to remarkable stability and treated as canonical, often due to the power of universities and examination boards over its content and delivery⁵¹ vocational studies have been controversial, their establishment contested and their form subject to the interests of competing stakeholders. Various embedded within senior secondary curricula or excluded on the basis of a lack of examination-sanctioned credibility, variously graded for the purposes of university entry or confined to competency-based assessment procedures (or both or neither) and variously delivered by schools, senior secondary providers, private training organisations or adult-oriented VET providers, there is little consensus evident in terms of the philosophy and objectives of vocational programmes for school-aged clients.

This has had an impact on the ability of schools to deal with the broader school cohort. In the Australian context, it might be argued that it has contributed to the persistently high levels of early school leaving (see Figure 1). Non-completion of school remains an intractable policy challenge in Australia and internationally. Associated with unemployment, underemployment, lower wages and the greater likelihood of imprisonment, in addition to the impact on the taxpayer of loss of revenue and the costs of welfare, unemployment benefits and crime⁵² its costs to society have been well documented. Leading to increased demands on the health system, decreased participation in the electoral and political process, less charitable giving and weaker social cohesion,⁵³ it has been shown to impact particularly severely on the most disadvantaged young people in our societies.⁵⁴

Figure 1: Secondary school completion rates, 1985–2011, Australia



Source: ABS (2011).

51 Goodson (1982).

52 Lehr et al. (2004).

53 King (1999).

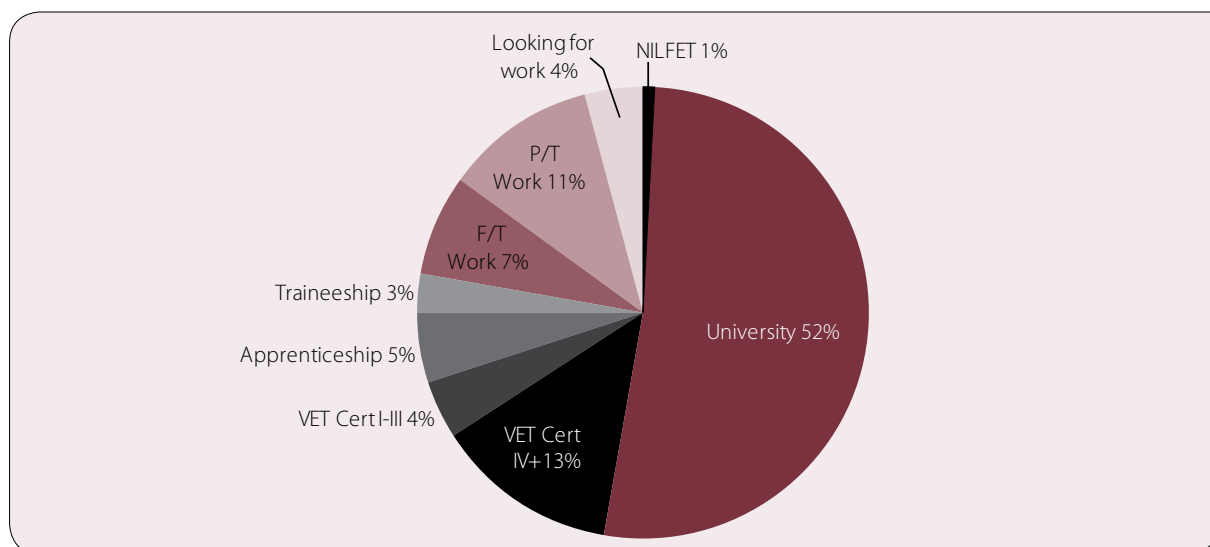
54 Curtis & McMillan (2008).

It is for these reasons that targets for school completion were set in Australia, both nationally and at the level of the individual states⁵⁵. The 1991 Finn Review on post compulsory education and training proposed that 95 per cent of 19-year-olds should have completed Year 12 or a post-school qualification or be participating in a recognised education or training qualification by the year 2001, a target which was not met. Following this review, there were many other initiatives designed to increase participation in post compulsory education in Australia. These included reforms and changes made to the senior secondary certificates, including attempts to make them more inclusive of the broader range of young people completing school. Amongst these reforms was the Vocational Education and Training (VET) in Schools programme, which emerged in the early 1990s and has grown to the point that nearly half of the student cohort enrolled in a senior secondary certificate⁵⁶ is now participating in some VET studies. It should be noted, however, that in most case these studies encompass no more than one or two subjects out of a possible eleven or twelve over the final two years of schooling. One state, Victoria, has introduced an alternative certificate, the Victorian Certificate of Applied Learning (VCAL), which is not designed for university entry. However, enrolments in this certificate have remained low, catering for approximately one in ten of the cohort.

This has meant that the university-preparatory curriculum of secondary schools, largely freed from the need to achieve any essentially vocational goal and continuing a tradition stretching back two millennia,⁵⁷ has remained insulated from the reality of labour market demands and the needs and aspirations of young people. Vocational programmes play a minimal role and sit uneasily within a senior secondary curriculum still largely used to teach, select and rank students for university.

The destinations of school completers in Australia present further evidence of the weaknesses of a curriculum principally designed for ranking and selection of university entrants. Figure 2 shows the destinations of school completers in the Australian state of Victoria. It presents a picture of successful transitions to university, post-school vocational programmes and work-based training (apprenticeships and traineeships) for the majority of the cohort – approximately 77 per cent. The quality of the transitions of the remaining group deserves closer consideration. These are the school completers who have made a transition to the labour market without further education or training.

Figure 2: Destinations of school completers, Victoria, Australia, 2011



Source: DEECD 2012.

⁵⁵ Polesel & Keating (2011).

⁵⁶ MCEETYA (2007).

⁵⁷ Durkheim, 1977.

Some of these (7 per cent) are working full-time and it might be argued that this is a good outcome, though it should be noted that the occupations entered are overwhelmingly low-paid, low-skill, casual jobs. There is an even larger proportion working part-time (11 per cent) and these too are in similar jobs. Overall, 51 per cent of those working and not in further education or training are employed as sales assistants, checkout operators, cashiers, waiters, counter hands and storepersons.⁵⁸ A further 4 per cent of the school leaver cohort is looking for work and a small proportion is not in the labour market and not in education or training (1 per cent).

Based on these data, it is legitimate to question the quality of the transition for the approximately one-fifth of the school completer cohort which makes a direct entry to the labour market. It might be noted that there are also strong socio-economic status (SES) and regional trends in these transition patterns.⁵⁹ Students living in the capital city, Melbourne, have much higher rates of transition to university, compared with their rural counterparts. Lower socio-economic students are much less likely to go to university than their higher SES friends. These data suggest that while the curriculum may serve a useful need in facilitating the transition of over half the cohort to university and another one-quarter to further vocational education and training, the transition for the remaining one-fifth is more problematic, largely concentrated as it is in low-skilled, casual work (most of it part-time) or unemployment. It is legitimate to question whether the sorting and ranking function of the senior secondary curriculum is compatible with the needs of the broader cohort graduating from school.

It has been suggested that there is a status hierarchy of school subjects⁶⁰ and that the credibility of the academic curriculum is in part due to the state-sanctioned functions it performs.⁶¹ In the case of the senior secondary school curriculum, this includes the ranking and selection of school completer candidates for university entry. Teese and Polesel (2003) have argued that this function has contributed to the conversion of the senior secondary subjects into a hierarchy which is used by the most successful users to generate competitive advantage in the race for entry to the most prestigious universities and faculties.

Conclusions

Since secondary school provision reached a point in the 1960s at which it might be said that there was universal access for young Australians, the proportion of young people completing school has grown strongly. Spurred by global recessions in the early 1980s and early 1990s, there have been spikes in growth which have been followed by consolidation or stasis. School completion rates in Australia have remained relatively stable over the last twenty years, reaching gradually towards the 80 per cent mark. Based on school completer surveys carried out in the three largest Australian states⁶² approximately half of these school completers are making a transition to higher education. University admission policies represent an effort to implement efficient but fair processes to assess and select the very large cohorts which are applying for university entry. These have depended heavily on the examinations (and other forms of assessment) associated with the senior secondary certificates and administered by independent boards of senior secondary studies in each Australian state.

These processes have had an inevitable impact on the curriculum, both in terms of pedagogy and assessment. Subjects taught within the senior secondary certificates have been required to conform with assessment requirements designed largely for university entry, even though the majority of young people commencing school and approximately half of those completing do not make a direct transition to university.

58 DEECD (2012).

59 Ibid.

60 Goodson (1993).

61 Maynes (1977).

62 DEECD (2012); DET (2011); Marks et al. (2010)).

This suggests that the university admissions and selection role played by the senior secondary curriculum may not be compatible with the needs of the broader secondary school cohort. In times past, attempts have been made to decouple the functions of the senior secondary curriculum and the admission needs of universities. These have been limited in success, in part because those programmes seen as not leading to university have struggled to maintain status.

The emergence of alternative curricula (a non-university entry certificate in one Australian state and vocational and other subjects which do not contribute to the tertiary admissions rankings) represent attempts to decouple the senior secondary curriculum from the selection needs of the universities. While these attempts are a genuine response to the pedagogical and assessment narrowness of the senior secondary certificates, they have also been shown to suffer in terms of perceived status and the effectiveness of the post-school pathways they achieve.⁶³ Decoupling the curriculum from the university's needs may give a measure of freedom, but this freedom comes at a cost.

The argument of this paper is that the senior secondary curriculum in Australia has now ceased to serve the needs of the broader secondary school cohort, but has become focused on the primary role of acting as a sorting mechanism for the universities. We argue that this function has distorted the operation of the curriculum and impacted on its inclusiveness and its ability to cater for the needs of all students. Despite historically high levels of school completion, one fifth of the cohort drops out of school without completing their studies. While some of these early leavers may have found effective pathways into apprenticeship training, the majority have entered a youth labour market which is characterised by high levels of unemployment and part-time, casual work. We argue that university admission policies need to be reconsidered in the light of their negative impact on large numbers of school completers, as well as the early leavers who cannot find a welcoming space within the senior secondary curriculum.

⁶³ Polesel (2008).

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Towards Diversification and Flexibility: The Changing of National College Entrance Examination and Its Impact on the Transition from Secondary Education to Higher Education in China

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The National College Entrance Examination (NCEE) (commonly referred to as ‘*Gaokao*’) is an annual academic examination in China. Known as the world’s largest standardized test, this examination is a prerequisite for admission into the undergraduate programmes in almost all higher education institutions (HEIs) in the country. Serving as the gateway to higher education, the NCEE has a substantial influence on many aspects of the education system, particularly at the secondary school level. Despite criticisms that an examination-oriented education leads to a disparity of opportunities, the NCEE enables all students to compete equally and is the only workable merit-based and transparent system for entrance into universities in China.

The Reform of College Admission

The Demand for Change

A Cultural Inheritance

The examination as a Chinese ‘invention’ has exerted an enormous influence on the social and economic development not only in the country but also within Asia and the Pacific region (Hill, 2010). The selection of candidates to join the bureaucracy was established as far back as the Sui Dynasty (AD 581–619) based on *Keju*, the imperial examination. Since then, examinations have played a crucial role in shaping the future of families and society in China. Some candidates spent a lifetime competing to secure a senior position in the civil service. Despite the odds against reaching the top, the chance of success has spurred massive participation in the examinations.

Examinations are often viewed as the major path to climb the social ladder and the route for upward social mobility. It is the only hope for changing one’s social status and creating an individual’s future (OECD, 2011a, pp.84–85). In this context, the ‘best brains for civil servants through examination’ has become a pervasive idea and a unique phenomenon even today. Most research results concur that the pursuit of education in China is basically extrinsic, driven by family or social expectations (OECD, 2011a, p.85). The improved living standards during the past two decades have led to more public demand for better and higher education, and consequently with implications for the role and scope of the NCEE.

A National Vision

In 2003, the Communist Party of China (CPC) in its 16th National Congress proposed the national development vision for the first two decades of this century: ‘building a moderately prosperous society of a higher standard in an all-round way to the benefit of well over one billion people’. The basic approach to achieve this goal is to further develop the economy, improve democracy, advance science and education, enrich culture, foster social harmony and increase the standard of living.

Five years later, the 17th CPC National Congress further identified that the path for this development is ‘to enhance China’s capacity for independent innovation and make China an innovative country’. This is the core of the national development strategy and a crucial link in enhancing overall national strength. As stated in the Congress report, the construction of an innovative country means:

...to continue to create conditions conducive to innovation, work to foster world-class scientists and leaders in scientific and technological research, attach great importance to training innovative personnel in the frontline of production, inspire the creative wisdom of the whole society and bring forth large numbers of innovative personnel in all areas. (CPC, 2007)

As the follow-up, the two crucial national medium and long-term plans for the development of science and technology (S&T) and human resources proposed to ‘fully play the role of education (especially basic and higher education) in developing innovative talents’ and ‘create the favourable cultural environment for the growth of innovative talents’ (The State Council of China, 2006) and ‘establish a vigorous and more open institution and mechanism for the development of human resources’ (The State Council of China, 2010a).

A Human Resource Dilemma

China is the largest developing country with a population accounting for 21 per cent of the world’s total. But there is still a large gap in the quality of labour force between China and the developed countries. According to the statistics, the proportion of the main labour force aged between 25 and 64 receiving higher education is less than 10 per cent (Information Office of the State Council of China, 2010) a figure which greatly lags behind that of some developed countries and the OECD average of 30 per cent (OECD, 2011b) as shown in Table 1. In order to change the population burden to a wealth of advantages in human resources and to basically realize modernization by the middle of this century, the demands of higher education in China will undoubtedly grow rapidly in the future. The National Medium and Long-term Plan for Development of Human Resources (2010–2020) also envisions that the proportion of the main labour force receiving higher education will reach 20 per cent in 2020 (The State Council of China, 2010a).

Table 1: International comparison on the education attainment of 25–64 years old population (2009)

| Countries | Below upper secondary | Upper secondary | Higher education |
|-------------------|-----------------------|-----------------|------------------|
| USA | 11 | 47 | 41 |
| UK | 26 | 37 | 37 |
| Germany | 15 | 59 | 26 |
| Japan | - | 56 | 44 |
| Republic of Korea | 20 | 41 | 39 |
| China | - | - | 9.9 |

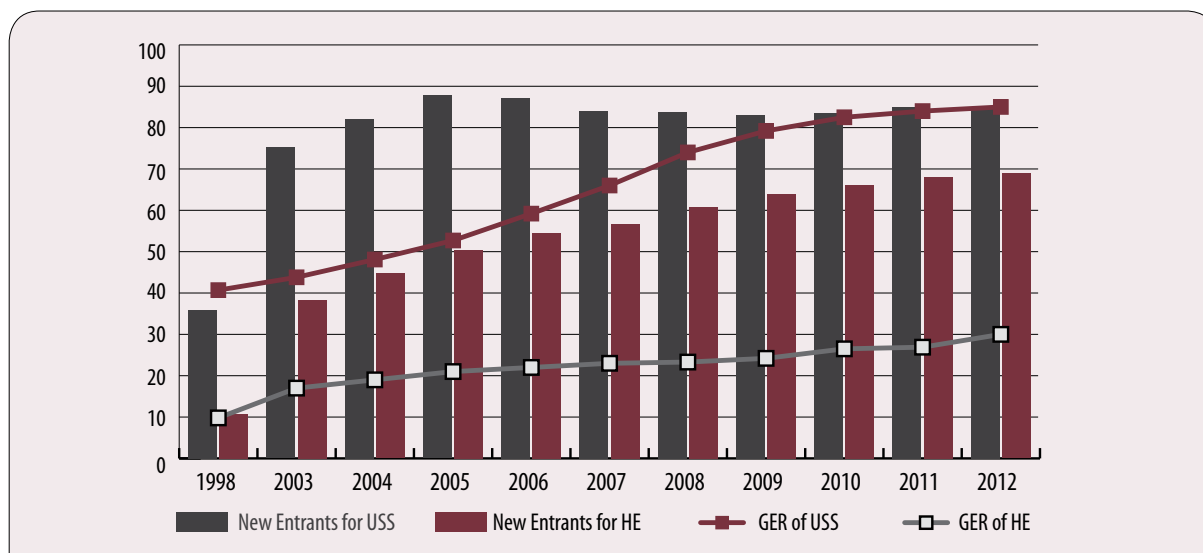
Source: Information Office of the State Council of China, 2010. *The White Paper on China’s Human Resources*. http://www.gov.cn/zwggk/2010-09/10/content_1700095.htm (Accessed 5 June 2013.)

An Educational Reality

Higher education in China has seen rapid growth in student enrolment in the past decade (see Figure 1) which has resulted in an increase of the Gross Enrolment Ratio (GER) from 9.8 per cent in 1998 to 30 per cent in 2012 (MOE, 2012). With continuous and widening access to higher education, the higher education system in China has been undergoing a fundamental transformation from a traditional elite model to massification. In the meantime, the development of upper secondary education has also been accelerating and will achieve the goal of universalization by 2020 to meet

the increasing number of junior secondary schools graduates. The expanding provision of potential candidates for higher education requires a more diversified, open and flexible college selection and enrolment mechanism to satisfy demand.

Figure 1: The development of enrolment of upper secondary education and higher education (in 100 thousands)



Note: The new entrants for USS and HE mainly refer to the regular (or academic) senior secondary schools and higher education institutions.

Source: MOE. 2003–2012. *Statistics Bulletin of the National Education Development 2003–2012*. http://www.moe.gov.cn/publicfiles/business/htmlfiles/moe/moe_335/index.html (Accessed 16 September 2013.)

Policy Orientation and Measures

The *National Medium and Long-term Plan for Education Reform and Development (2010–2020)* (hereinafter referred to as the *National Education Plan*) promulgated by the State Council of China in July 2010 is an important policy blueprint steering the development of education in the future decade. The *National Education Plan* pointed out that,

Giving priority to developing education and raising its modernization level are key to attaining the goal of building a moderately prosperous society in all respects, and making China a prosperous, strong, democratic, culturally advanced and harmonious modern socialist country. (The State Council of China, 2010b)

According to the *National Education Plan*, the Chinese Government will take ‘giving priority to the development of education’ as one of the fundamental and long-term guidelines and principles. As stated in the plan, the education system, especially upper secondary and higher education, will be further dramatically expanded (see Table 2).

Table 2: The main development indicators in the national media and long-term plan for education reform and development

| Indicators | 2009 | 2015 | 2020 |
|--|------|------|------|
| GER of Upper Secondary Education (%) | 79.2 | 87.0 | 90.0 |
| GER of Higher Education (%) | 24.2 | 36.0 | 40.0 |
| The main labour force receiving higher education (%) | 9.9 | 15.0 | 20.0 |

Source: The State Council of China. 2010b. *National Medium and Long-term Plan for Education Reform and Development (2010–2020)*. http://www.gov.cn/jrzq/2010-07/29/content_1667143.htm (Accessed 16 September 2013.)

As for the reform of examinations and enrolment systems, the *National Education Plan* defined the purpose of this reform as an effort to terminate the practice of relying on a single examination to decide the future of a student; and as the breakthrough in the implementation of quality-oriented education and the cultivation of innovative students. The basic principle to be followed in the process is to facilitate the selection of students through scientific approaches, promote holistic and better development of students, and safeguard equity and social justice. The new system proposed in the *National Education Plan* includes:

- set a clear distinction between enrolment criteria and entrance examination results;
- conduct more research on the examination systems managed by independent examination bodies;
- facilitate independent examination bodies to assist in the implementation of the new system under the supervision of government;
- emphasize the shift to the testing of students' comprehensive quality and abilities;
- diversify examination options for students;
- provide flexible texting arrangements on certain subjects;
- design a system to assess students comprehensively;
- authorize HEIs to formulate their own enrolment policies in accordance to law;
- introduce multiple pathways for student admission.

Table 3: Policy initiatives for reforming college admission

| Policy measures | Value-driven | Demand-driven |
|--|------------------------|----------------|
| Detaching enrolment from entrance examinations | efficiency | provider |
| Supervision of government | social cohesion/equity | socio-economic |
| Organized by professional institutions | relevance | socio-economic |
| Socialization of examinations | efficiency | socio-economic |
| Testing of students' comprehensive quality and abilities | relevance | socio-economic |
| Enrolment decision making by HEIs according to law | transparency | provider |
| Multiple choices for students | participation | consumer |
| Examinations offered in different categories | relevance | consumer |
| Several examinations a year on certain subjects | participation | consumer |
| Comprehensive assessment for students | equity | socio-economic |
| Multiple admission for students | diversity | socio-economic |

In terms of categorised entrance examinations for HEIs, the *National Education Plan* proposed to introduce the new initiatives step by step as below:

- Entrance examinations for 4-year regular university/college shall be organized uniformly across the country;
- Entrance examinations for vocational HEIs shall be organized by provinces, autonomous regions and municipalities;
- Provinces, autonomous regions and municipalities shall choose their own enrolment methods for regular HEIs.

The *National Education Plan's* emphasis is to improve quota allocation and enrolment in HEIs, as well as to introduce and enhance a holistic and diverse enrolment mechanism which can ensure equal opportunities for all outstanding students.

- Unified national entrance examination shall continue to serve as the basis for 4-year regular university/college enrolment, and will be combined with academic aptitude tests and comprehensive quality assessment to select and admit outstanding students;

- HEIs may, on the basis of interviews or testing results, admit candidates who have exceptional talent or professional skills and who meet the prerequisites;
- Senior secondary school graduates who excel in their studies or have demonstrated a well-rounded development may be admitted based on the recommendations of their referees;
- Qualified candidates who agree to work in industries or trades or areas designated by the government can sign contracts with the HEIs and enrol into the relevant programmes in preparation for their future jobs.
- Special procedures shall be designed to enrol, as exceptions, those who have made outstanding contributions to practical work or who have special talents or profession.

The Current College Admission Systems

A Brief History of the College Admission System

The college examination and admission system has undergone several stages of development in China: the rather rigid Soviet model of the 1950s and early 1960s; massive disruptions during the Cultural Revolution (1966–1976); the period of ‘renaissance’ during the 1980s and 1990s; and the rapid expansion in the 21st century.

The Influence of the Soviet Model (1949–1965)

At the beginning of the founding of the People’s Republic of China, HEIs followed the conventional mode of admission based on each institution’s independent policies and systems. In 1950, the joint universities entrance examination within a certain area made the first step towards a unified national system. In 1951, regional examinations were introduced nationwide. This series of attempts ultimately contributed to the emergence of a national examination (NCEE) in 1952.

The Cultural Revolution (1966–1976)

The Proletariat Cultural Revolution, as it was formally known, was launched by Mao Zedong in 1966 to eliminate all bourgeois influence in the country’s ‘superstructure’ (as opposed to the economic infrastructure). One of the consequences of this campaign was the closing down of conventional schools which were replaced with schools led by teams of political workers, peasants and soldiers. The curriculum was totally revamped to reflect the essence of ‘class struggle’. There were several attempts to resume schooling, but with little effect. The HEIs were suspended and replaced by new institutions admitting only workers, peasants and soldiers regardless of their academic merit (OECD, 2011, p. 85).

Reform and Opening-up (1976–1997)

A milestone in education development at that time was the resumption of NCEE in 1977 marked by the Guideline on Admission for Higher Education Institutions 1977 issued by the Ministry of Education (MOE). Most of the students enrolled in successive years were the adults who had been deprived of learning opportunities during the Cultural Revolution. In 1985, the State Commission of Education¹ approved the direct admission of gifted students without sitting the NCEE in 43 pilot universities including Peking University.

¹ The MOE was replaced with the State Commission of Education in 1985 and then it was renamed as MOE in 1998.

New Exploration (1998–)

With the great expansion of higher education from 1998, a new round of reform of examinations and admission for HEIs was launched as well. The programme of '3+X' for NCEE was initiated by MOE and implemented in most provinces. In 2000, Beijing, Shanghai and Anhui began to introduce a second opportunity² for examinations and admission. In 2003, 22 universities were permitted to offer 5 per cent of their quotas to applicants based on their own choice. In 2006, universities in Hong Kong were permitted to enrol students from mainland China.

Roles and Responsibilities of Stakeholders

The NCEE follows a two-level management model operated by the central education authority and local (provincial) education authorities respectively.

The Central Education Authority

As the central authority for examination and admission, the Department of College Students and Education Examination Service Center (EESC) of MOE are responsible for the macro-control and regulation. The MOE works closely with the provincial education authorities and the HEIs to set all policy matters in line with central government priorities. The MOE's role and responsibility includes:

- formulation of the policies on examinations and admissions and *Examination Specifications* as the guidelines;
- development of enrolment plans (quotas) based on national economic and social development and needs. A complex matrix of provincial quotas, institutional quotas, and subject quotas is negotiated annually between HEIs and national and provincial authorities;³
- overall jurisdiction for supervising and implementing policies and plans.

The Provincial Education Authorities

The provincial education authorities through their affiliated education examination service agencies are responsible for the implementation of NCEE. It should be noted that each provincial education examination service agency has its own unique approach that is based on the national fundamental procedure. The procedure allows for consistency, fairness and transparency. The provincial educational authorities take their responsibilities for:

- developing enrolment plans according to provincial needs and under the guidance of MOE;
- organizing and implementing examinations by receiving applications and registration, developing examination papers, setting up examination sites, reviewing and grading examination papers, and recording raw scores for each subject with help from schools and colleges;
- determining the provincial cut-off for entry into different tiers of HEIs (minimum passing score) for the streams of humanities and science and do this in accord with enrolment quotas and score distribution. Examinees are then ranked and enrolled from the highest score to the lowest.

HEIs

HEIs are another level of administration responsible for recruiting students according to the plan. While the university sector expresses its relative autonomy in recruitment of students, regulating

² Besides the regular entrance examination held in summer, an additional one is provided in spring.

³ For national HEIs, MOE sets the student quota in consultation with each institution, while for provincial HEIs enrolment plans are developed with the provincial education authority and then approved by MOE.

quotas is ultimately a decision of the MOE, with flexibility tending to be related to private HEIs and foreign joint programmes (Olsen, 2009, p. 10).

Admission Criteria

Mainstream: NCEE as a Single-Log Bridge

As an entrance examination, the NCEE, taken by qualified senior secondary school graduates and those who have equivalent educational qualifications, has been adopted by almost all Chinese HEIs as one of the very few major criteria for admission. It is nearly the only channel for most of the candidates. The total score of NCEE is virtually a decisive factor in admission procedures. Annually, it attracts millions of candidates who crowd this 'single-log bridge' and join this fierce competition for their future, which causes considerable concern from examinees, teachers and parents.

The NCEE is a series of subject-oriented examinations based on curriculum knowledge. It is designed to examine the candidates on their knowledge as well as academic abilities. According to MOE (2013a) regulations on examination admission to HEIs, students must meet the following conditions:

- have completed senior secondary school or an equivalent qualification;
- be physically healthy;
- obey the constitution and laws of the PRC; and
- hold permanent residence in the province where they will attend the NCEE.

'Unity in diversity' is one of the most important characteristics of the implementation mode for NCEE. Since the reform programme on '3+X' was introduced in 1999, it was put into practice in five pilot provinces the following year and then expanded to 18 provinces in 2001. Now it has spread to most of the provinces in the country. At present, '3+X' has been widely accepted as the most successful model. Some new innovative modes based on it, including '3+X+1', '3+1' and '3+3+1' were further derived from the '3+X' core under the context of decentralized implementation of NCEE in selected provinces (see Table 4). Generally, the NCEE provides two streams of science and the humanities for the candidates. In the mode of '3+X', '3' means the three common subjects composed of Chinese, mathematics and a foreign language, which is compulsory for both the streams. And 'X' comprises alternative subject groups between 'integrated science' (including physics, chemistry and biology) and 'humanities' (including politics, history and geography) for the different streams. The full score for each common subject is 150 and 300 for integrated science/humanities. Centrally, these innovative modes aim to offer more choices and holistic assessments for the candidates.

Table 4: Various modes of NCEE

| Subject Model | Group 1 | Group 2 | Group 3 | Group 4 | Group 5 |
|-------------------------------|---------------|-------------------|------------------------|--|--|
| National (3+X) (750 points) | Chinese (150) | Mathematics (150) | Foreign Language (150) | Integrated Science/Humanities (300) | |
| Zhejiang (3+X+1) (810 points) | Chinese (150) | Mathematics (150) | Foreign Language (150) | Integrated Science/Humanities (300) | Optional Module ¹ (60) |
| Shandong (3+X+1) (750 points) | Chinese (150) | Mathematics (150) | Foreign Language (150) | Integrated Science/Humanities (240) | Basic Competence (100×60%) |
| Shanghai (3+1) (600 points) | Chinese (150) | Mathematics (150) | Foreign Language (150) | | Politics/History/ Geography/Physics/ Chemistry/Biology (150) |
| Hainan (3+3+1) | Chinese (150) | Mathematics (150) | Foreign Language (150) | Politics/Physics + History/Chemistry + Geography/Biology (100+100+100) | General Examination for Graduate of Senior secondary school (10%) ² |

Note: 1. Candidates can choose one module from 18 modules in 9 subjects; 2. The score will not be included if the subjects in group 5 are different from group 4.

Source: Zhejiang Provincial Education Department, 2013. *Guidelines on Admission for Higher Education Institutions in Shandong 2013*. <http://gk.zjedu.gov.cn/news/136626458671970310.html> (Accessed 16 September 2013); Shandong Provincial Education Department, 2013. *Guidelines on Examination and Admission for Higher Education Institutions in Shandong 2013*. http://www.sdedu.gov.cn/sdedu_zxwj/201305/t20130517_134205.htm (Accessed 16 September 2013); Shanghai Municipal Education Commission, 2013. *Implementing Regulations on Examination and Admission for Higher Education Institutions in Shanghai 2013*. <http://www.shmec.gov.cn/html/xxgk/201303/420032013005.php> Accessed on 16/09/2013; Examination Bureau of Hainan Province. 2013. *Implementing Regulations on Examination and Admission for Higher Education Institutions in Hainan 2013*. <http://202.100.202.56/phtml/2013/06/18/2990.html> (Accessed 16 September 2013).

Supplement: UEE as an Overpass

In addition to the national system, with the approval of MOE some pilot universities (including Tsinghua University in Beijing, Fudan University in Shanghai and Zhejiang University in Hangzhou) began to experiment with university self-selection entrance examinations (UEE) with modifications to the general admission system. The UEE is a process of university administered general aptitude tests and interviews for a selected 5 per cent of applicants before the mandatory NCEE. Since its implementation in 22 universities in 2003 with less than 2,000 students taking the UEE, the programme has gradually reached 107,000 students in 90 universities in 2012 (Du, 2013). Universities differ slightly in how they enrol students. However, even though the quota is still rather limited, it was clear from discussions that the autonomy of self-selecting students provided greater scope and opportunity for universities to identify talents that were not obvious through the mainstream NCEE system.

Admission Procedures

Mechanisms of Admission for Different Types of HEIs

HEIs including universities, colleges and vocational institutions, private colleges and Sino-foreign joint programmes are categorised under tiers for the purpose of college entrance via the NCEE (Olsen, 2009, pp. 13–14).

- Above Tier One is a special category of institutions including military, police, arts, sport and maritime academies that students can be nominated to through the recommendation process,

or can list these as a first preference ahead of the regular Tier One institutions. Included in this group also are the Chinese University of Hong Kong, the University of Hong Kong and City University who are able to recruit students before Tier One preferences have been allocated;

- Tier One institutions targeting the top 10 per cent of NCEE candidates include all 112 universities and colleges on the Project 211 list to receive additional government funds for capacity building, among which 39 universities have been further supported by China's World Class University Project, known as Project 985. Project 211 and Project 985 institutions have a special status from MOE as well as the provincial governments. These universities account for 80 per cent of doctoral students, 66 per cent of all graduate students, own 96 per cent of the key laboratories and receive 70 per cent of scientific research funding. In addition, there are a limited number of other universities given Tier One status within their own provinces, but ranked as Tier Two institutions by other provinces;
- Tier Two Institutions. The next 20 per cent of candidates are eligible for admission and make up the bulk of four and three-year universities and colleges which are normally sponsored by local governments across the country;
- Tier Three institutions represent private HEIs, vocational HEIs, and in some provinces, include Sino-foreign joint programmes.

Special Arrangements for Disadvantaged Backgrounds

In the current system, exceptionally gifted students can be directly admitted to HEIs without sitting the NCEE. However, ranges of positive discrimination measures have been developed for students from disadvantaged backgrounds including those with special needs, ethnic minorities and students from remote rural and mountain areas, while special programmes ensure adequate enrolment in key fields of national interest. For instance, a Special Programme of Admitting Students from Poverty-Stricken Regions was launched by five central ministries: the MOE, National Reform and Development Commission (SDPC), Ministry of Finance (MOF), Ministry of Human Resource and Social Security (MOHRSS), and Office of Poverty Alleviation and Development of the State Council (OPAD) in 2012. According to this programme, during the period of the Twelfth Five-Year Plan (2012–2015), 10,000 enrolment quotas will be provided each year by the top national universities for students from impoverished regions (MOE, SDPC, MOF, MOHRSS and OPAD, 2012). In 2013, this programme was further expanded in targeted study programmes, regions, HEIs and enrolment scale (see Table 5).

Table 5: The special programme for admitting students from rural poverty-stricken regions 2013

| Item | Description |
|--------------------|--|
| Targeted programme | Study programmes related to agriculture and rural development including agriculture and forestry, water conservancy, geology and mining, engineering, medicine |
| Targeted region | 832 poverty-stricken counties |
| Targeted HEIs | 263 HEIs, including all Project 211 HEIs and 108 national HEIs |
| Enrolment scale | 32,100 students, including 30,000 for 4-year HEIs, and 2,100 for vocational HEIs |

Source: MOE. 2013b. Circular on Continuing to Implement the Special Programme for Expanding the Admission from Rural Poverty-Stricken Regions. <http://www.moe.gov.cn/publicfiles/business/htmlfiles/moe/s3258/201306/152897.html> (Accessed 20 September 2013.)

Impact of Admission Mechanisms

Admission mechanisms have been at the centre of education for a long time in China. The 1977 reconstruction of the NCEE is still playing a vital role connecting secondary education with higher education.

'Shadow' Education

As an independent phase of education, secondary education has its own nature, mission, scheme and assessment. As mentioned in the draft *General Senior Secondary School Curriculum Programme* developed by the MOE, general upper secondary education is the part of basic education for developing the quality of citizens based on nine years of compulsory education. Upper secondary education establishes the base for life-long development of students (MOE, 2003). However, the fierce competition and high stakes of the NCEE have turned upper secondary education into a long-term preparation for higher education instead. As a result, the NCEE is often referred to as a conductor's baton in Chinese to show its influence on directing what material will be tested. In other words, the senior secondary school curriculum becomes an examination-oriented education that is linked to the NCEE, a standardized test that dominates what will be taught in the senior secondary schools.

Curriculum Reform is Hampered

From 2003, the MOE initiated curriculum reform all over the country. It introduced progressive ideas and structure into the curriculum framework in general upper secondary education. At the same time the curriculum reform also adjusted curriculum structure, teaching, learning, assessment and management. However, during the process of promoting and implementing the reform agenda, a huge gap still remains between policy and practice. There are complex reasons why this is so such as the belief that the admission examination impedes the new curriculum reform.

The mission defined by the MOE is to 'run education to the satisfaction of the public'. But there are few answers to the question 'what is the people's satisfaction?' In general, the ratio of students enrolled in HEIs is the most important indicator to measure the performances of schools, principals and teachers. Faced with the high-stake examination, it is required by society and parents that all the schools focus on the NCEE. It is weird that all schools throw all their energy into preparing for the examination. However, none of them can jump out of this circle.

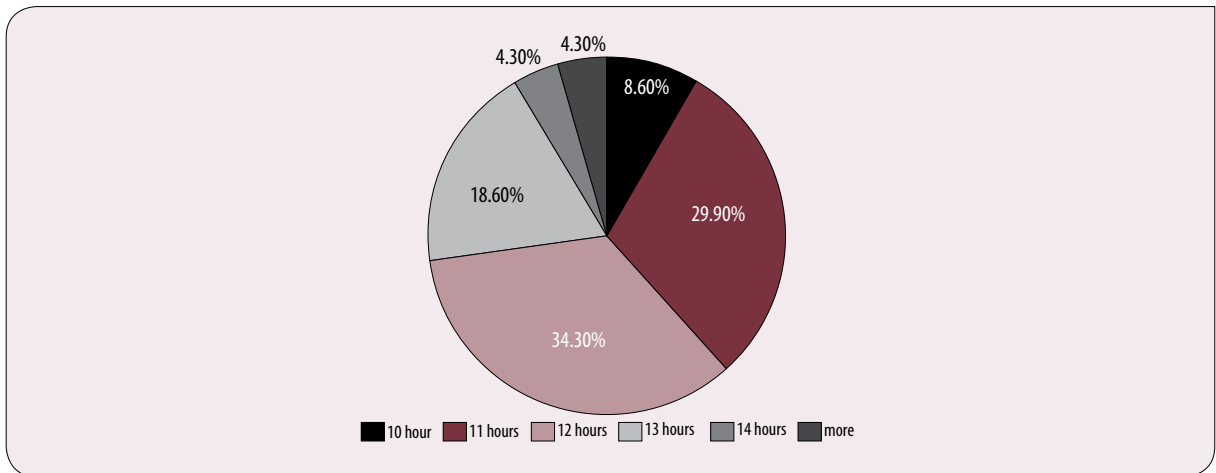
Inquiry-based learning is another good case in point to show how the NCEE blocks the new curriculum reform. Inquiry-based learning is an innovating cross-discipline course that helps to cultivate students' learning ability. Most teachers agree on the value and significance of inquiry-based learning but only 59.5 per cent of senior secondary schools provided this course for all students according to a survey of 350 teachers from 28 provinces in 2008. The NCEE ranks first as the selection tool but it also hampers inquiry-based learning (Huo, 2010, p. 51).

Students' Learning Burden

Public sentiments concurred that the NCEE has overburdened students in senior secondary schools. In a survey of 1,924 senior secondary students, 53 per cent of Grade 10 students said they felt pressured by the NCEE. The percentages rose in tandem with the grade: 56 per cent for Grade 11 students and 71 per cent, nearly three quarters, for Grade 12 students (Luo, 2012). To ensure students spend their time learning, most senior secondary schools adopt the 'campus-closed' strategy, which keeps students in their schools and classrooms. Students spend 207–215 days per year in classes. Most students are required by their parents to attend extra classes on Saturday and Sunday, especially Grade 12 students who cannot enjoy their weekends or even various holidays.

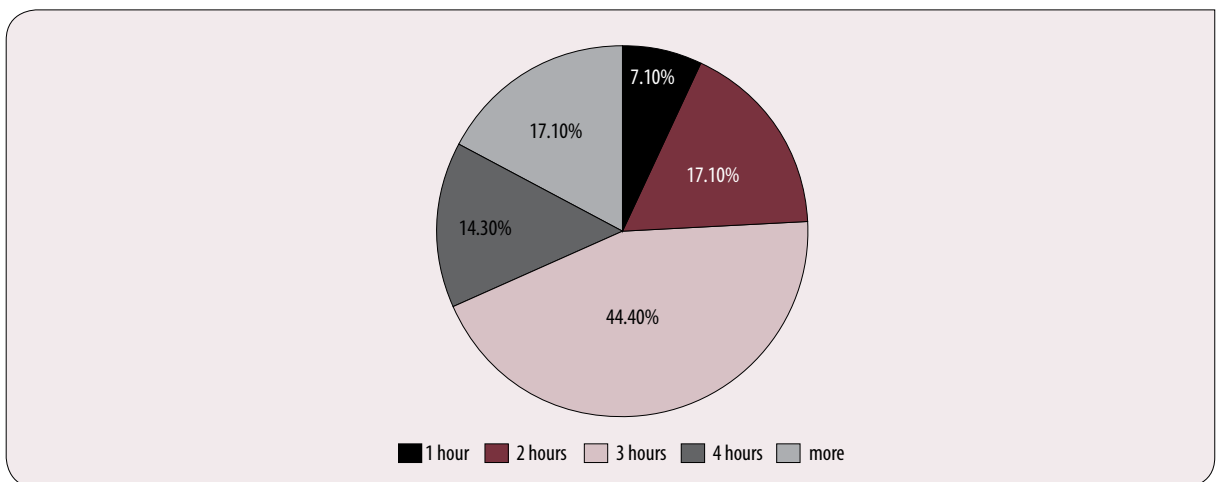
The students' daily life consists of classroom, homework and sleep. According to a survey, more than 60 per cent of students stay at least 12 hours in the classroom each day (see Figure 2) while 17.1 per cent (see Figure 3) spend more than four hours doing homework after class (Chang and Guo, 2011, p. 74–76). Except for attending classes, doing homework and taking the examination, they do little else.

Figure 2: Length of time senior secondary school students spend in the classroom per day



Source: Chang, Q. and Guo, B. 2011. Investigation of Study Burden of Senior Secondary School Students in the Context of New Curriculum. *Modern Educational Forum*, Vol. 10, pp. 74–76.

Figure 3: Length of time senior secondary school students spend doing homework per day



Source: Chang, Q. and Guo, B. 2011. Investigation of Study Burden of Senior Secondary School Students in the Context of New Curriculum. *Modern Educational Forum*, Vol. 10, pp. 74–76.

In addition to monopolizing most of their time, the NCEE also influences student learning. The content of learning in senior secondary school is focussed on the admission examination. A nation-wide survey (see Table 6) shows that there is little student-teacher and student-student communication in the classroom. It seems as if that textbooks alone are enough to nourish the students and transfer knowledge to help them perform well in the NCEE.

Table 6: The method of students' learning

| Learning methods | Disagree strongly | Disagree | Not clear | Agree | Agree strongly |
|---|-------------------|----------|-----------|-------|----------------|
| Answer teacher's question actively in classroom | 10.8% | 28.8% | 25.8% | 24.2% | 10.4% |
| Have the opportunity to speak or question frequently | 21.0% | 37.8% | 21.2% | 14.3% | 5.7% |
| Participate in discussion or activity actively | 13.7% | 30.5% | 28.6% | 18.8% | 8.4% |
| Divided into groups easily for effective learning | 16.8% | 33.3% | 26.3% | 16.7% | 6.9% |
| Cooperative learning and inquiry in groups frequently | 15.7% | 31.0% | 25.0% | 19.6% | 8.7% |
| Listen to each other in classroom discussions | 22.0% | 40.4% | 24.6% | 9.3% | 3.7% |
| Share thoughts, feelings and etc. with each other | 22.8% | 37.3% | 25.3% | 9.5% | 5.1% |

Source: Huo, Y. 2010. *Survey on Current Situation and Discussion in General High Education*. Shanghai, East China Normal Press, p. 193.

In addition, it is common for senior secondary students to take extra courses outside school hours. Even in a key senior secondary school in Beijing, 26.7 per cent of all Grade 10 students attend three outside courses in one semester, 22.2 per cent and 20 per cent take two and four outside courses in one semester respectively. Only 10 per cent of students do not take any extra courses outside of school. Most of these extra courses are mathematics, physics, English and chemistry. Around 49.3 per cent of students choose to participate in extra courses to improve their test scores. Only 2 per cent of students who take extra classes are motivated to acquire new knowledge (Tian, Dai & Zhai, 2012, pp.11–13).

Teachers' Working Pressure

The pressure on the teachers in senior secondary schools is much higher than those in primary and lower secondary schools. The intense attention on examination results has compelled teachers to increase their efforts in fulfilling their responsibilities, including teaching the lessons, preparing the lessons, reviewing homework and so on. Table 7 describes what teachers do.

Table 7: The working time of teachers

| Type of Activity | Average time per week (hours) | Type of Activity | Average time per week (hours) |
|------------------------|-------------------------------|----------------------------------|-------------------------------|
| Teaching the lessons | 9.38 | Guiding activities outside class | 2.50 |
| Preparing the lessons | 20.65 | Meetings and administration | 3.93 |
| Reviewing the homework | 13.44 | Training and research | 3.95 |
| Student management | 3.97 | Others | 3.97 |

Source: Huo, Y. 2010. *Survey on Current Situation and Discussion in General High Education*. Shanghai, East China Normal University Press, p. 202.

In addition, the conflicting tension between educational reform and examinations magnifies the teachers' insecurity, resulting in a situation where they have to learn to tread carefully between the activities reflected in the new reform and the NCEE. If forced to make a choice, the teachers will opt to focus on teaching to the test because their students' examination scores are included in their performance appraisals and will be used to decide their bonuses.

The Function of Admitting Students

Limits of NCEE

The NCEE has several limitations when assessing students' abilities. To begin with, it usually relies on the paper-pencil format. This kind of assessment can measure the students' memory, understanding and application of knowledge and skills, but it cannot capture many non-cognitive abilities, such as cooperation, innovation and creativity, which are some of the core competences for the 21st century. Furthermore, the content of the examination narrows the learning content in secondary education. Finally, the high costs associated with the NCEE means that it is administered for only 2 days once a year. The performance of students on these two days directly decides the level and kind of HEIs in which he or she can enrol.

A MOE national survey of professors in top universities regarding their satisfaction and attitudes about the quality of secondary education shows that they believe teaching in senior secondary school is dictated by the NCEE; and that the teaching overlooks reasoning and knowledge and the intellectual needs of students (MOE, 2012).

Innovation and Reform of NCEE

When it comes to the validity of the NCEE, it is agreed that it is still the key and most effective way to select students for higher education. Based on the education reforms of other countries and suggestions from society, two reform measures for the examination mechanism have been introduced.

The first innovation is the introduction of the UEE in some top national universities. The UEE is often held before the NCEE and organized by the universities themselves. The candidates still need to take part in the NCEE, however, those who pass the UEE will be given special consideration and preferences. If they meet the criteria of Tier One HEIs, they can be admitted into the respective universities. Although this new initiative is still being debated across the country, it has begun to exert substantial influence on upper secondary education. A 1,202-person survey indicates that 41.9 per cent of respondents believe that the UEE has a positive effect on basic education (Fan, 2009, p. 241) by changing the perception that "smart" students are not only those who received high marks in paper examinations. The UEE has increased the recognition of students who perform well in non-cognitive areas or are exceptionally creative. Furthermore, the new initiative releases much space for schools to develop their own characteristics beyond their identical emphasis only on academic excellence as prescribed by the NCEE.

Another innovation, the Comprehensive Quality Assessment (CQA), was introduced into upper secondary education in 2006. It aimed to rectify the limits of the NCEE. CQA is carried out at the end of each semester from Grade 10 to Grade 12. Every student will be assessed in six different dimensions: morality, civic literacy, learning ability, communication and cooperation, sports and health, aesthetics and performance ability. The students will receive marks in each of these dimensions using five categories for grading. The score is composed of the student's self-evaluation, peer evaluation and teacher evaluation. The students are assessed six times over three years and all the results are recorded. The students' performance is an important supplementary reference for university entrance. With the CQA, the schools begin to focus more on all-round development of their students, and not only their scores in the NCEE.

The Policy Mechanism for Social Cohesion

It is a reality that there are several discrepancies in higher education enrolment due to cultural factors such as the regional, urban/rural and family class backgrounds. However, as an important mechanism for social cohesion, admission exams help to balance educational resources among

provinces and students to redress the gaps among varying backgrounds. A survey of more than 38,000 people by the EESC of the MOE in 2007, as part of the 30th anniversary of the resumption of NCEE, showed that around 58.7 per cent of the respondents were from the rural area when they sat for the examination; and 47.6 per cent of rural students believed that the NCEE was the main way to improve their status (EESC, Chinese Youth and ATA Inc., 2007).

There are two main policy instruments used in the NCEE to balance the huge difference among the regions. Firstly, the National Enrolment Plan which sets the enrolment quotas plays an important role in allocating the number of students who can be enrolled in HEIs. The total quotas are fixed for each province every year by the central government. Less developed provinces are given a higher priority, therefore students from these areas will be admitted into universities over students from more prosperous provinces even though they may have similar test scores. The National Enrolment Plan therefore levels the playing field for students entering higher education and provides more opportunities for students from impoverished rural areas to get a life changing higher education.

The Power of Examination Proposition is another policy instrument which defines what to test and how to test in the NCEE. It helps to ensure the consistency and relevance of examinations. Since educational quality varies in different provinces, students from underdeveloped areas may be disadvantaged if they were to take the same examination. To maintain educational diversity, each province was authorized by the MOE to decide the content and method of testing. In 2002, the Beijing Municipal Education Commission started to implement examinations independently. This was the first year that the central government empowered province-level governments to set the examination autonomously, and the number grew to 16 provinces by 2006.

Social Attitudes to New Trends

As mentioned, the NCEE has provided several regulations and measures for change. Firstly, from the perspective of management, the central government empowers the provincial governments to propose examination content and enrolment regulations. As a result, the provincial autonomous examination proposition gives more space to include educational differences among provinces and to localize the common experience of students. Secondly, with decentralization comes diversification, another trend in the reform. Some top universities enjoy more freedom to choose what students they want by the UEE. Further, the mode of examination named '3+X' requires that all students take the Chinese, Mathematics and English exams but it also provides the freedom for students to take exams in other optional subject areas (e.g., literature, social science or science). Lastly, the CQA incorporates more transversal skills to select the students beyond their academic ability.

Due to the high-stakes involved, any adjustment to the NCEE, however small, will always attract the attention of the whole country. The decentralization and diversification efforts are welcomed by the public, but when put into practice there are also criticisms as well. Taking the UEE as an example, the equity issue has been subjected to substantial questioning. An online survey conducted among 2,117 people indicated that 66.7 per cent of them worry that the UEE might encourage corruption in recruitment practices, while 56.8 per cent think that the process is not transparent, and 48.8 per cent consider it will disadvantage students from less developed areas (Wang, 2009). The teachers in senior secondary schools found the UEE to be a distraction because students focus on preparing for this enrolment examination (China Education and Research Network, 2013). The presidents of some universities criticized it as being relevant for only 0.05 per cent of the candidates in NCEE (Zhou, 2011). As for the UEE, it is inclined to attract more students from big cities or rich families than those who hail from the countryside (Liu, 2012).

There are also some problems in implementing the CQA, of which integrity is seen as the key issue. For example, principals and teachers in senior secondary schools may give students high scores on the CQA in order to facilitate admission to universities. In addition, the assessment techniques have their own problems. For example, it is hard to assess the moral character. The assessment procedures are also questioned by educators, teachers and parents (Jin and Fan, 2012, pp. 69–74).

Ways Forward

To conclude, the NCEE is the educational examination system with Chinese characteristics. It influences the whole educational system. As the vital link of the education system, it exerts substantial power in selecting and cultivating students in HEIs on the one hand, and guiding for the development of basic education on the other. Along with the new reforms of this examination, there are also debates, questions and suggestions, such as whether to harmonize the examination at the national or provincial level, how specific disciplines are tested, how enrolment quotas are set, and so on.

Statements in the *National Education Plan* indicate the direction of the central government's policy: 'promoting the reform of enrolment and examination' and 'constructing the enrolment institution which includes classified-test, comprehensive assessment and multiple admission' (The State Council of China, 2010b). Aimed at providing students with more and equal opportunities for higher education, and based on international experience and the specific Chinese situation, these policy reforms mainly focus on two dimensions: the social dimension and the scientific dimension.

In the social dimension, to maintain equity and justice in the admission examination, the enrolment criterion in different regions will vary to give priority to the western areas of China which lack good educational resources. In addition to using test scores to determine whether or not to enrol students, the new reforms assert that multiple types of enrolment should be applied in practice, such as university autonomous enrolment, oriented enrolment, and special enrolment and so on. These various enrolments redefine the concept of 'talent' and help universities to select the students they want. Although all new reforms are now being piloted, in reality there is still a long way to go to promote the revised enrolment system.

In the scientific dimension, a lot of assessment instruments have been introduced into the admission test. The Achievement Assessment of Students in senior secondary school and Comprehensive Quality Assessment are both accepted by provincial education authorities and HEIs when they admit prospective students. Even so, the NCEE remains the key reference in selecting students for HEIs. Furthermore, the content and form of entrance examinations are still being debated. Non-cognitive abilities might be reflected by the Comprehensive Quality Assessment. Finally, increasing the frequency of NCEE is also proposed and explored by the governments and HEIs.

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University and College Admission Policies and Practices in Hong Kong SAR, China: Opportunities and Challenges in Moving from Secondary Education to Tertiary Education

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Abstract

Hong Kong's case illustrates how university and college admission policies and practices are streamlined to balance the jurisdiction's aspirations for greater regional and global competitiveness, and public demand for more equitable access to higher education. The case is informed by document analysis and participant observation of admission policies and practices at several UGC-funded universities, private universities and self-financing community colleges. The paper offers a number of insights into the complexities of transition from secondary to tertiary education in one of the most advanced Asian societies experiencing high demand for education that serves as a vehicle for enhanced socio-economic and geospatial mobility.

Introduction

Hong Kong has a number of characteristics that differentiate it from other jurisdictions that are concerned about interdependencies between pre-college schooling and university admissions. A globally-connected and dynamic regional hub, Hong Kong accommodates almost 3 million households and has a population of 7 million, of which approximately 13 per cent are 15–24 year-old youth. The city has approximately 1,100 schools with various kinds of ownership and funding structures (e.g. government schools, direct subsidy schools, international schools) at the secondary level of education; and a semi-autonomous system of 12 universities (8 receiving UGC subsidies, and 4 fully private) and 21 community colleges (of which 12 are affiliated with the UGC-funded universities) at the tertiary level.

As previous studies indicate, Hong Kong improved access to higher education from 19 per cent of the tertiary school-age population in 2000 to 60 per cent in 2006² by upgrading the community college system and creating a number of articulation policies, allowing students to move from associate degrees in colleges to bachelor degrees in universities (Oleksiyenko, Cheng and Yip, 2013). Competition for admission to a local world-class university (e.g. HKU or HKUST) is notoriously intense, generating high demand among households for costly extracurricular tutorials aimed at preparing students for university exams (Bray and Lykins, 2012). Local students have to follow

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2 According to the UNESCO Institute of Statistics. 2010. Hong Kong's tertiary school-age population totaled 478,763 in 2000 and 465,891 in 2006.

a sophisticated learning trajectory to move up in the social and professional status hierarchies (Oleksiyenko, 2013). To avoid the pressures associated with this, many Hong Kong households send their offspring to study abroad – on average, 33,000 individuals are reported as leaving annually over the last twenty years (Oleksiyenko, Cheng and Yip, 2013).

College and university admission policies undoubtedly have an immense impact on household investment strategies. Highly educated families often act rationally to position their children for progress from reputable schools to analogous university programmes. Hong Kongers' ambitions to advance the status of their children and families are fuelled by the local tradition of competitive examinations, and by the growing pressure to compete in a global economy by demonstrating competencies that are both versatile (e.g. being multilingual, multicultural, multi-skilled) and internationally recognized. Being admitted to a high quality university programme often implies an applicant's high degree of suitability with the standards of academic performance and excellence that are benchmarked by the local universities ranked in global tables. At the same time, employers are demanding a high degree of adaptability to the rapid changes that characterize local professional communities involved in regional trade and exchange, as well as global competition. Increasing political, economic and cultural interactions at the national and regional levels have given rise to opportunities, as well as challenges, which require a sophisticated life-long learner.

With variable access to quality education at the secondary level, students' capacities and attitudes do vary and generate divergent demands for learning standards at the tertiary level. Local degree providers encounter a number of challenges in aligning students' talents with their institutional missions, as universities and colleges are drawn into various hierarchies (e.g. national and global ranking systems) as well as networking domains (e.g. local professional communities and regional and international associations). Some universities pursue top talent in science and aspire to improve institutional global standing in knowledge development; others focus on being of service to society and meeting the human resource needs of specific industries and professional communities. Similar dichotomies emerge inside the universities and academic departments, as higher education worldwide has been experiencing a growing divide between visions for research and teaching, as well as between elite vs. mass higher education. How institutional strategists shape their admissions to mitigate these tensions, and what universities gain and lose while trying to reconcile stakeholder demands are just two of the important questions that emerge from the interactive dynamics between the secondary and tertiary levels of education.

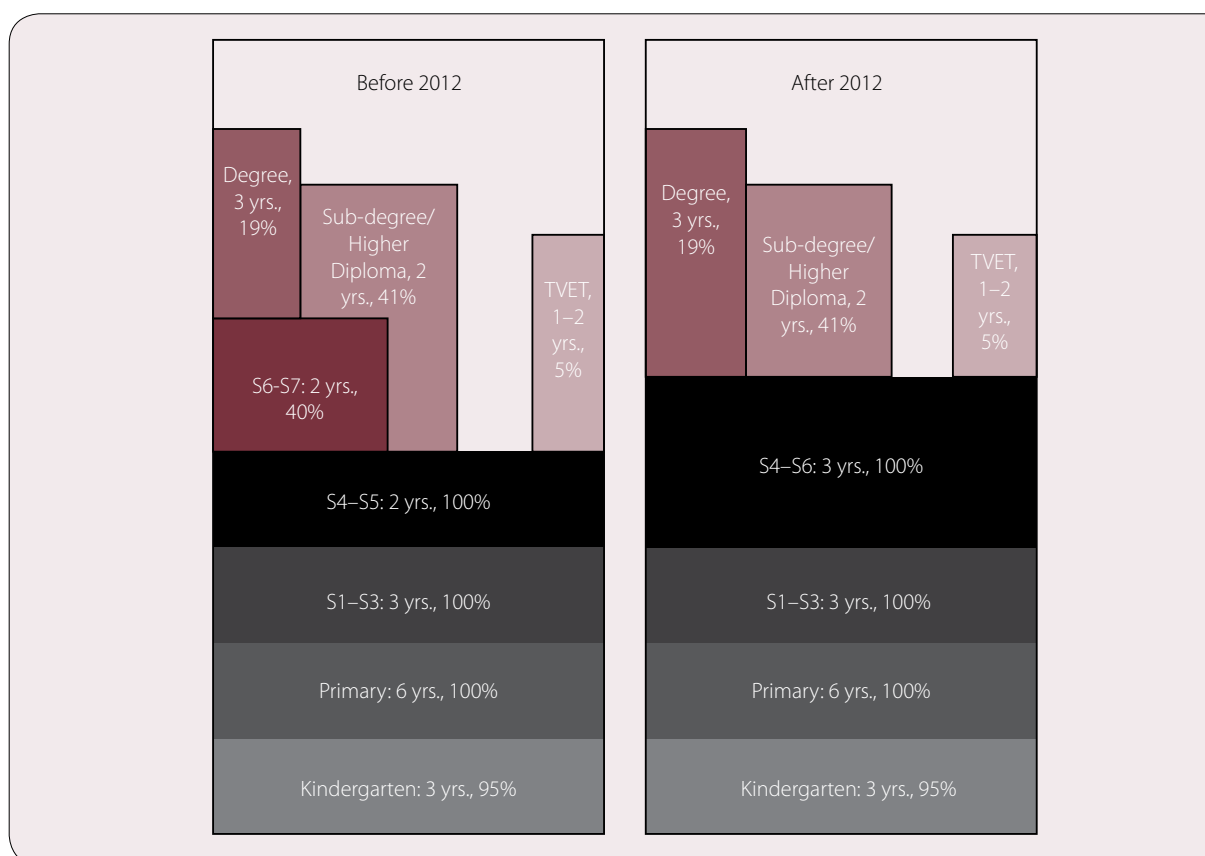
This paper seeks answers to these questions by examining the differences in admission policies and practices at several types of higher education institutions in Hong Kong: i.e. universities that are either comprehensive or specialized, publicly and/or privately funded, with English or multilingual medium of instruction; and self-financing colleges that are either affiliated with a UGC-funded university, or with religious or commercial agencies. The comparative sample includes the following universities: University of Hong Kong, Hong Kong University of Science and Technology, Chinese University of Hong Kong, Open University of Hong Kong, Lingnan University; and colleges: HKU SPACE, Caritas Institute of Higher Education (a Catholic institution), and Hang Seng College of Commerce. This sample offers a broad spectrum of organizational, cultural, and denominational variability which is representative of Hong Kong's higher education system. The paper draws on analysis of public data shared on the institutional websites of these universities and colleges.³ The data were triangulated with the co-authors' personal experiences. The following section explores the comparative ranges emerging in Hong Kong after secondary education reform. The subsequent section examines the nature of admission policies, practices and processes. Next, we discuss the potential implications of such policies, practices and processes on household and student behaviours. In conclusion, we look at the emerging trends and changing patterns.

³ The information was accessed in September and October 2013.

Secondary Education: Creating Balances or Galvanizing Streamlined Races?

Until 2012, Hong Kong followed the British system of secondary education. The system not only used the O-Level and A-Level stepwise screening, but even copied the policy changes that were taking place in England and Wales. It should be mentioned, however, that starting in the 1970s, policies aimed at developing local identity were gradually gathering strength. Hong Kong accelerated systemic reforms in 1999 after the city officially reverted to Chinese sovereignty in 1997. Below, Figure 1 illustrates two diagrams of the Hong Kong education system and percentage of participation at each level of education before and after the 2012 reform.

Figure 1: Hong Kong education system and participation rates before and after 2012



The British historical legacy established a system that had five years of secondary schooling (Forms 1–5), ending with a Certificate of Education Examination – a crucial certification for a student’s future. The certificate was regarded as a gateway for all young people, either to work or further studies. It was followed by a two-year matriculation education (known as Forms 6 and 7) in preparation for the A-Level examinations, which determined entry to higher education. However, this system was overhauled, as Hong Kong undertook a major restructuring, moving from a British-based (6+5+2)+3 (undergraduate) system to one of (6+3+3)+4 (undergraduate), which is similar to many other systems in the region.

It is fair to say that the Hong Kong education system is very much a hybrid of Chinese culture and British traditions, and that schools enjoy the best of both worlds. To be clear, a formal school system on the Chinese mainland began only after 1905 with the abolition of the Civil Examinations. By this time, Hong Kong already had schools in place and it would be a long time before they were influenced by changes on the mainland. The leading elite Hong Kong schools followed the model

of the British ‘public’ (i.e. private) schools. Nonetheless, the Hong Kong population has always been predominantly Chinese and the schools adapted to Chinese culture. Furthermore, this was facilitated by the localization policies of the British colonies, particularly after the Second World War. Hong Kong adopted universal 6-year primary education in 1970, compulsory 9-year education in 1979, and free 11-year education in 2000. With access to education expanding, Hong Kong established a differentiated system by testing students and placing them in one of three levels: the poorest performers would be sent to a ‘band 3’ school and the top performers to a ‘band 1’ school. A failure to perform well during the differentiation test caused some students to be stigmatized for an extended period and the system received a lot of criticism from both local and international reviewers.

There have never been many government schools in Hong Kong. However, since the 1950s, the government has been subsidizing non-government school-sponsoring bodies (mainly churches, charitable organizations and other associations or agencies) and with them formed a public school system. Many such schools once operated under marginal conditions (e.g. on the rooftops of public housing) but they were given land and buildings in the 1970s and 1980s. Over time, increasing investment by the government allowed many schools to develop state-of-the-art facilities. While the Hong Kong government covers most of the capital costs and almost the full recurrent costs of public schools, it expects the non-government sponsoring bodies to run them. The sponsoring bodies abide by a Code of Aid, a kind of contractual agreement with the government. The quality of schools varies, as is evident in PISA findings for various years. There have been attempts to recognize performance by providing the better schools with a ‘direct subsidy’. The amount is the same as that given to other public schools, but ‘direct subsidy’ schools are given more autonomy in spending, fee-charging and admissions. The ‘direct subsidy’ schools are similar to US charter schools except that there is no contract related to performance.

In the past decades, alongside and underlining all kinds of changes and reforms, Hong Kong has developed a culture of a ‘school-based’ orientation, which allows schools to have a high degree of autonomy in governance, curriculum design, appointment of principals and teachers, as well as admission and graduation policies and practices. Thus, schools benefit more if they are better resourced, have a superior reputation, and are competitive enough to get top socio-economic status students. The reforms have also promoted a replacement of administrative inspections (by inspectors) by periodic reviews (by peer reviewers). Approval of curricula is no longer required by law, and censorship of political activities has been removed from the law. This shift has been further reinforced, given the formalization of school governance boards as legal entities. The ‘school-based’ orientation, however, is being implemented under three boundary conditions: the law, government policies, and university admissions.

The newly implemented 3+3+4 reform has established a unified Hong Kong Diploma of Secondary Education (HKDSE)⁴ examination, which has replaced the Hong Kong Certificate of Education Examination (HKCEE) and the Hong Kong Advanced Level of Examination (HKALE). The subject scores in the HKDSE are used to allocate undergraduate places in the Joint University Programmes Admissions System (JUPAS).⁵ HKDSE includes assessment of two language subjects (English and Chinese), Mathematics, Liberal Studies, and up to four electives (e.g. Economics, Geography, Biology, Physics, Chemistry, Chinese History, etc.)⁶ Non-JUPAS applicants (e.g. non-local students or local students with foreign diplomas) submit secondary school results officially certified by the jurisdictions that issued them. Both JUPAS and non-JUPAS applicants also have to demonstrate a number of intangible leadership qualities to secure a place at a top university.

4 <http://www.hkeaa.edu.hk/en>

5 <http://www.jupas.edu.hk/en/j4/about-jupas/governance-of-jupas/board-of-management>

6 HKEAA About HKDSE: http://www.hkeaa.edu.hk/en/hkdse/About_HKDSE

In most cases, the top university applicants come from advantaged schools (i.e. schools supported by high tuition fees paid by affluent families and communities. As a rule, these schools have a strong reputation and capacity to attract the best teachers from across the jurisdiction, greater region and the world). While Hong Kong is reported to have around 1,100 secondary schools, this number is shrinking because of dramatic declines in population. Each age cohort has declined from around 9,000 members in the early 1980s to around 4,000 in recent years. The fertility rate is around 0.9 children per woman,⁷ far less than the ‘replacement’ level of 2.1 children per woman.⁸ However, a new, controlled influx of immigrants has contributed to a slight increase in the student population.

Upon completing their secondary education and sitting the HKDSE exams, students have several paths to choose if they wish to continue with further learning and skill-development. Graduates with low HKDSE scores are predisposed to seek admission to the vocational education system, governed by the Vocational Training Council, or to the sub-degree sector serviced by community colleges. At the same time, high-scorers can compete for university places at home or abroad. In fact, Hong Kong’s higher education was only open to the elite, who could compete for access, until the 1970s. There was only one university, the University of Hong Kong, and the enrolment ratio hovered around 1 per cent. Enrolment grew to 65 per cent in 2009, with 18 per cent in Type A⁹ (OECD convention) programmes provided by eight public and four private universities. Hong Kong’s enrolment in higher education is still seen as being low in comparison with other higher education systems in the region, such as Taiwan, China, South Korea and Japan. Hong Kong has limited ‘carrying capacities’ to expand access: the jurisdiction’s geographical space constrains infrastructural growth, curbing universities’ desire to increase the number of undergraduate places. Some universities have come up with plans for new campuses across the border in Guangdong province to facilitate anticipated growth in the coming years. At the same time, universities have expressed concern about compromising the quality of their degree education due to expansion. The differences in university expectations with regards to admission processes and expansion strategies are explained below.

Tertiary Education: Differentiating University and College Admission Policies and Practices

Admission policies and practices differ across programmes in universities and colleges. The institutional admission distinctions are outlined in the following four sections: (a) eligibility criteria; (b) application process; (c) screening mechanisms; and (d) notifications. Each section contrasts and compares approaches in universities and community colleges.

(a) Eligibility Criteria

(i) Universities: Hong Kong’s undergraduate programmes admit applicants with top performance in HKSDE core and elective disciplines. Regardless of whether they are public or private, comprehensive or specialized, universities currently expect an applicant to perform at a minimum level of 3 or above in English, level 3 or above in Chinese, level 2 or above in Maths, and level 2 or above in Liberal Studies in the HKSDE exams. In addition to these four core subject areas, universities also expect students to perform well in one of the elective courses.¹⁰ In addition to overall institutional requirements, university schools and programmes have their own basic entrance requirements for core and elective subjects. For example, the HKUST’s School of Science requires students to have a strong science background.¹¹ Open University’s Honours Bachelor of Nursing in General/Mental

7 Census and Statistics Department of Hong Kong. 2010. *Hong Kong Annual Digest of Statistics*.

8 Census and Statistics Department of Hong Kong. 2010. *Hong Kong Population Projections 2010–2039*.

9 <http://stats.oecd.org/glossary/detail.asp?ID=5440>

10 CUHK promises to increase the requirements to 4 core and 2 elective subjects from 2015 onwards.

11 HKUST School of Science Admission Requirements: http://science.ust.hk/4year_requirements.html

Health Care prefers applicants with electives in subjects such as biology, chemistry, or physics.¹² At the postgraduate level, programmes vary with regard to specialization and can increase requirements with regard to performance and affiliations at the preceding level. For example, most HKU-taught post-graduate programmes admit candidates who have a reputable honours undergraduate degree from HKU or an equivalent English-language university, as well as a GPA of 3.2 or higher.

Formal credentials are equally important for domestic and non-local students. Mainland students are expected to complete China's National College Entrance Examination and achieve top scores in the 'gaokao'.¹³ International students must show high scores in IB Diploma, GCSE or IGCSE equivalent. Bilingual competencies (English and Chinese) are required from domestic students, but not from international students. While both HKU and HKUST use English as the medium of instruction (EMI), CUHK offers programmes with a mix of instruction languages, and prioritizes Mandarin over Cantonese in the Chinese medium of instruction. Mainland China students speaking Mandarin and often lacking knowledge of Cantonese (a dominant dialect in the jurisdiction) cannot join some programmes where Cantonese is the medium of instruction (e.g. some medical programmes).

All universities also require their applicants to have strong intangible qualities, such as character and leadership abilities. They are also expected to lead a talent-enriching extracurricular life on campus (e.g. creative arts, music, dance and sports). Universities place emphasis on applicants' strong motivation to study, aspirational attitude to achieve, and the ability to take care of and guide others. HKUST, for example, aspires to recruit 'visionary'¹⁴ students who dream of studying at HKUST, to the exclusion of other institutions. HKU expects its international students to demonstrate value in 'non-academic excellence'. International students need to submit personal statements and referee reports that exemplify their 'leadership'. Beyond exams, 'we value all-roundedness', states HKU.¹⁵ To demonstrate how much they favour exceptional non-academic qualities, all universities have employed the School Principal's Nominations scheme, which allows applicants with outstanding non-academic achievements to solicit the support of their school principals.¹⁶

Universities do not seem to be discriminating against applicants on the basis of demographics. However, some universities place higher demands on so-called 'mature students'. CUHK defines them as being 23 years old and above. Such students need to show 'evidence that they have achieved sufficient competence in their chosen field of study to justify admission; or have shown exceptional ability in appropriate academic or professional fields'.¹⁷ Lingnan University categorizes mature students as being 25 years of age and above, and requires that they have 'at least 3 years of relevant working experience; [and] at least three years of continuous residence in HK'.¹⁸

(ii) Colleges: Community colleges also have variable admission rules. College applicants may be admitted on the basis of lower scores than required for university programmes. HKU SPACE, for example, wants to see results in 5 subjects from HKDSE (4 core courses, as mentioned in the university case, and one of the electives: for example, Chinese history, Economics and Biology), and expects applicants to have a level 2 in both English and Chinese for admission to associate degree and higher diploma programmes (by comparison, its founding university's bachelor's degree programmes accept students with a level 3 in the two language subjects).

12 http://www.ouhk.edu.hk/WCM/?FUELAP_TEMPLATENAME=tcSingPage&ITEMID=CCETPUCONTENT_57493767&lang=eng

13 HKU Mainland Students Admission Overview <http://www.als.hku.hk/admission/mainland/admission/overview>

14 HKUST Undergraduate Admissions: http://join.ust.hk/local/explore_ust/why_hkust.html

15 HKU International Students Admission Requirements: <http://www.als.hku.hk/admission/intl/admissionHK2b>

16 This approach is also practiced on the mainland. Peking University, for example, accepts recommendations only from selected top high school principals. This is not clearly specified in the case of Hong Kong's universities.

17 <http://www5.cuhk.edu.hk/oafa/index.php/non-jupas>

18 <http://www.ln.edu.hk/reg/info/prospectus/4years/MA.html>

Meanwhile, the Caritas Institute of Higher Education admission documents emphasize the availability of bachelor's degree programmes, thus indicating an opportunity for students to stay with the college for an extended period. Expectations with regard to entrance scores to these programmes are higher (i.e. level 3 for Chinese and English) than they would be for an associate degree not linked to a bachelor's degree offer.¹⁹ On the other hand, Hang Seng Management College claims that 66 per cent²⁰ of their associate degree students have no problems in moving to a degree programme within their institution. UGC university-affiliated and independent colleges compete for students, the latter often feeling disadvantaged given that the UGC-funded universities tend to take advantage of their ability to prioritize the articulation of associate degrees into in-house bachelor's degrees.

In general, college applicants must meet both college-wide and programme-specific entrance requirements. Students have to possess a recognized post-secondary certificate/diploma, complete a pre-associate degree / foundation programme, and show results from HKALE or HKDSE. However, Caritas's bachelor's degree programmes have universal admission requirements; no particular course requirements are specified in the recruitment publications. Neither do colleges emphasize in their admission materials the need for the intangible qualities that are required from university applicants. At the same time, HKU SPACE and Caritas admission requirements highlight access opportunities for 'mature students'²¹ aged 21 or above, who lack the listed academic qualifications, but who have relevant work experience. Non-traditional learners can also gain access through Project Yi Jin, sponsored by the Education Bureau and supported by the Federation for Continuing Education in Tertiary Institutions. The applicants can apply for full-time or part-time studies. The project aims to create an 'alternative route', 'to nurture people who are biliterate and tri-lingual, knowledgeable in IT applications and other practical skills so that they have a solid foundation for employment and further education' and 'to upgrade the quality of human resources and enhance the competitiveness of Hong Kong'.²²

(b) Application Process

(i) Universities: For both university undergraduate and postgraduate programmes, applicants submit their documents online. An application file usually includes academic references, a personal statement, transcripts, and other supporting documents which may refer to an assessment of intangible extracurricular-related qualities or activities. For undergraduate programmes, however, there is not a strict requirement that students submit prescriptive portfolios; students are invited to exercise their discretion in presenting their extra-curricular activities, personal achievements, work experience, and other information that may help them with the application process.²³ JUPAS undergraduates apply via the JUPAS website, while others use the university Online Admission system. In addition, HKUST allows for some taught postgraduate programme offices to receive hard copies instead.²⁴ Applications are generally not accepted after deadlines, but some programmes make exceptions and allow for late applications for a limited number of places. HKU and CUHK declare that non-JUPAS students with outstanding academic results and other achievements may be offered a place before other applicants are considered, as soon as all their credentials are verified. If the fast track is unsuccessful, the applicants are placed back in the 'normal selection' pool.²⁵ CUHK also promises to accelerate the study period of 'advanced standing' students by reducing the number of units that are required for graduation (normally 24).²⁶

19 At the same time, Caritas allows for 5 passes from the old Hong Kong Certificate of Education Examination (HKCEE).

20 http://www.hsmc.edu.hk/en/admission_fa.php#18

21 <http://hkuspace.hku.hk/cc/application-and-admission/local-overseas-qualifications/general-entrance-requirements>

22 References from www.cches.edu.hk/eng/programme_features/03_pyj.aspx (accessed on 7 October 2013)

23 JUPAS FAQ <http://www.jupas.edu.hk/en/j4/faqs/about-jupas>

24 HKUST Postgraduate Studies Admission Overview <http://pg.ust.hk/cgi-bin/pg/eng/detail.php?catid=3&sid=8&tid=33>

25 HKU Non-JUPAS Admission Scheme 2014-15 <http://www.als.hku.hk/admission/applying-or-admission-info/hong-kong-students/non-jupas>; also CUHK: <http://www5.cuhk.edu.hk/oafa/index.php/non-jupas/njl/application-schedule>; <http://www5.cuhk.edu.hk/oafa/index.php/international/intl/application-schedule>

26 <http://www5.cuhk.edu.hk/oafa/index.php/international/intl/entrance-requirements>; <http://www5.cuhk.edu.hk/oafa/index.php/non-jupas/njl/general-entrance-requirements>

Across the UGC-funded universities, submission deadlines differ for JUPAS and non-JUPAS applicants. JUPAS applicants submit their documents by early December, but can still make amendments following the submission. For non-JUPAS students, the application deadline is late December. For mainland students, the university application deadlines are around mid-June (usually after 'gaokao'). As a result of competitive pressures, private universities keep their deadlines flexible: they accept applications on a first come-first served basis and the applicants are encouraged to make submissions as soon as possible.

(ii) Colleges: College applicants also increasingly rely on online systems. The HKSAR Government has introduced a separate Electronic Advance Application System for Post-Secondary Programmes (E-App) with 31 participating schools and university-affiliated colleges and academies.²⁷ The system centralizes all electronic applications, just like the JUPAS system, in which individual institutions obtain an applicant's information for further processing. However, divergences occur. HKU SPACE in Po Leung Kuk indicates that applications must be submitted online, but also allows students to submit them in person to the College or to one of six Enrolment Centres. Applicants are advised that they may submit their documents during Walk-in-Admission days.²⁸ Caritas allows for submissions through the 'E-App', by post, or in-person at its Tseung Kwan O campus.

The college application deadlines differ depending on the application method. Online applications are usually due at the end of June. Walk-in-Admissions days are held between July and mid-August and are mainly organized to assess English language proficiency. Some programmes use them as an opportunity to meet the candidates in-person and/or to gauge their performance first hand: for example, an art programme can ask applicants to bring their portfolios. The Walk-in-Admission days are held as soon as the HKDSE results are released on the JUPAS system, so that applicants that fail to get a university place can try their fortunes with an application to a college associate degree or higher diploma programme. If an applicant's HKDSE/HKALE results are insufficient to meet the entrance requirement for an Associate Degree/Higher Diploma programme, he/she can apply for a Certificate in General Studies Programme. Applicants from the mainland can attend a college talk, apply, and be interviewed – all over the course of a special recruitment day. Recruitment events periodically take place in major cities like Guangzhou or Beijing.²⁹

(c) Screening Mechanisms

(i) Universities: The undergraduate JUPAS applicant files are screened and assessed with the help of a weighting system of 'best 5 subjects' or 'core + electives'.³⁰ Some programmes give heavier weighting to certain subjects associated with required courses, and universities usually explain in detail their weighting systems to their applicants.³¹ Various programmes give different weight to 'other factors', such as interview performance, portfolios, linguistic or literary capacities, aptitude tests or participation in clubs/events.³² Certain programmes (e.g. B.Sc. in Surveying)³³ only consider applicants who make the programme their first choice. Likewise, CUHK only admits mainland China students who indicate that CUHK is their first choice. Therefore, applicants' ranking of university and programme choice in the application forms can play a role in admission screening. In postgraduate programmes, applicants provide written papers or sit for interviews to show their academic ability and/or explain their professional competencies. In research degree programmes

27 HKSAR E-APP Participating Institution <https://www.eapp.gov.hk/eapp/info/en/other.htm>

28 HKU Space PLK Admission Procedures <http://hkuspace-plk.hku.hk/applications-and-admission/app-procedures>

29 <http://www.als.hku.hk/admission/mainland/admission/talk>

30 <http://www.als.hku.hk/admission/applying-or-admission-info/hong-kong-students/jupas/entrance-requirements> http://join.ust.hk/local/jupas/apply_jupas_entry_general.html

31 http://localcms.als.hku.hk/admission/local/file/upload/359/Subject_Weighting_0516.pdf and http://join.ust.hk/local/jupas/apply_jupas_entry_subject.html

32 http://localcms.als.hku.hk/admission/local/file/upload/345/Other_factors_0516.pdf

33 <http://fac.arch.hku.hk/rec/bsurv/admissions>

(e.g. M.Phil. and Ph.D.) recruiters/screeners typically look for originality in the proposal, knowledge in the field, an innovative topic of research, and potential for subsequent publications.³⁴

HKUST follows up on an application, if it needs further supporting documents. HKU informs applicants that they should wait for the faculties to approach them via post, email or phone, with regard to any subsequent interview arrangements. Some students with excellent results may not need to be interviewed. International students may be interviewed online (via Skype) or by phone and arrangements for interviews are made by phone or email. Mainland students are notified of interviews only via the institution's online application system. HKU states that it will not engage in phone or email outreach to mainlanders and, for its own convenience, HKU has chosen 10 cities on the mainland where English Proficiency interviews are conducted.³⁵ HKUST also interviews mainland applicants in various major cities in mid June.³⁶ Admission officers employ core communication techniques (e.g. interviews, focus group discussions)³⁷ to gauge applicants' level of interactivity and verbal expression. The interviews are conducted in English for students seeking access to universities with EMI³⁸ programmes. The interview information may be posted on the HKUST Online Admission System. At the postgraduate level, interviews take different forms, as determined by individual schools, departments, programmes or specialisms.

(ii) Colleges: Colleges accept students with a combination of qualification courses from HKDSE/HKCEE/HKALE.³⁹ Colleges may require on-site interviews⁴⁰ or offer places immediately. Caritas, for example, admits students on a first-come-first-served basis.⁴¹ Successful applicants are selected following an interview; some candidates can attend two rounds of interviews, if necessary.

(d) Notification of Admission

(i) Universities: Universities typically send out admission notifications from January to the end of August and can delay notifications for students on the waiting list. It is clear that universities use the notification schedule to compete for the best students. For example, HKUST sends out its earliest offers in December, while others do theirs in January or later. In general, the main round results for JUPAS students are released in early August. Also, notifications are sent out immediately to applicants who are not likely to be offered a place. A rejected HKDSE student can appeal to the Hong Kong Examinations and Assessment Authority requesting a re-check and re-mark of examination papers, which may lead to an 'upgrade' of results.⁴² Institutions are then asked to consider the applicant's grade changes and to make a 'better offer' in mid August. The admission results are announced on the JUPAS online system.⁴³ Students confirm admission acceptance by paying the acceptance fee by the end of August. Non-JUPAS students are required to confirm acceptance by mid-August at the latest. HKUST decisions are communicated via email and appear on the online application system. Mainland students are notified of their application results by early July. Successful mainland candidates have to confirm their acceptance by 6 July.

(ii) Colleges: Colleges tend not to specify their notification schedules. Given the self-financing character of sub-degree programmes, there is often an ongoing process of recruitment in place and no common notification structure.

34 HKU M.Phil. and Ph.D. Degrees: <http://www.gradsch.hku.hk/gradsch/web/apply/guide1415/3.html>

35 <http://www.als.hku.hk/admission/mainland/admission/interview>

36 <http://join.ust.hk/mainland/admission/application.html>

37 <http://join.ust.hk/mainland/admission/criteria.html>

38 English medium of instruction.

39 http://www.hsmc.edu.hk/en/admission_faq.php#18

40 <http://www.cihe.edu.hk/eng/admission/infodays.html>

41 http://www.cihe.edu.hk/eng/admission/admin_pro.html

42 http://www.hkeaa.edu.hk/DocLibrary/HKALE/Handbook/2013ALCandHandook3_E.pdf

43 <http://www.jupas.edu.hk/en/j4/calendar/important-dates>

Tertiary Education: Stimulating Students for Competition

An analysis of admission policies and practices described above indicates that universities and colleges are engaged in local competition and also aspire to recruit the best students from abroad. However, flexibility is built in, giving access to different student categories and proficiency levels. UGC-funded universities are particularly interested in such differentiation, as they aspire to retain their high positions in the global ranking systems. Five such universities (HKU, HKUST, CUHK, Hong Kong Polytechnic University, and City University of Hong Kong) have consistently performed well globally and thus are in high demand by students and parents in Hong Kong and, increasingly, mainland China. These universities are able to use their high-ranking positions to attract the best local and non-local students. HKU, for example, argues in its admission materials that it 'has consistently been ranked as one of the best universities in Asia'.⁴⁴ In 2012–13 HKU admitted 6,562 undergraduate students, and received 24,000 applications from non-JUPAS applicants.

The understanding that ranking results can vary across tables and fluctuate from year to year has tempered the universities' promotional messaging. HKUST tells its undergraduate applicants that 'education is not a board game. It is not about scores or grades. It is not about clever strategies or brilliant tactics'⁴⁵ and explains how dreamers have propelled the university to first place in Asia. CUHK emphasizes its bilingualism and general education, a 'unique college system' in Hong Kong (i.e. different from the community colleges that are mentioned in this paper), as well as its spacious and green campus.⁴⁶ Lingnan, which does not appear in the ranking tables, highlights its unique identity as the only 'liberal arts university' in Hong Kong.⁴⁷

To establish a better connection between its globally-oriented programmes and local employment needs, HKU promotes 'experiential learning' that incorporates 'out of classroom' experiences into the formal curriculum, while developing knowledge and skills through direct encounter with the phenomena being studied.⁴⁸ Its Common Core Curriculum (with tutorials) aims to provide key common learning experiences for all undergraduates by focusing on current issues, intellectual skills and values. International exchange opportunities are offered and student development (through service learning, leadership programmes, language centres for language skills development, mentorship programmes) is encouraged.⁴⁹

HKUST also promotes programming that cultivates students' interests and passion for building knowledge, developing technical aptitude, and honing communication skills that are essential for successful careers. Internships, hall life, exchange and leadership programmes, and research opportunities are promoted by HKUST to allow for broad exposure to a variety of choices and learning experiences. The university encourages student diversity on campus, but also caters its messaging about expectations to various student groups.

The balancing acts are displayed even more prominently in the community colleges' messaging. These colleges are not ranked in Hong Kong and they are reluctant to refer directly to their competition. The HKU SPACE's website, for example, does not make any comparisons with other similar colleges. Its messaging is more focused on meeting a growing demand in the sub-degree sector, which provides specialized knowledge and skills for industry. Given the strong involvement of local businesses in global networks, the college benchmarks top-up degrees delivered through international collaboration. For example, HKU SPACE's Centre for International Degrees offers

44 <http://www.als.hku.hk/admission>

45 http://join.ust.hk/local/explore_ust/why_hkust.html

46 <http://www.cuhk.edu.hk/english/admissions/study-in-hong-kong.html>

47 <http://www.ln.edu.hk/reg/info/mainland/quali-chs.php>

48 <http://tl.hku.hk/reform/experiential-learning>

49 <http://www.als.hku.hk/admission/studying-in-hku/outside-classroom-education>

admissions to joint programmes with overseas universities and students can apply for studies abroad by meeting the requirements in the specific overseas programmes, ranging from a post-graduate diploma to a master's degree. At the same time, HKU SPACE encourages diversity with enrolments from various countries and welcomes a mix of ethnic and cultural perspectives that enrich the learning process.⁵⁰

Similarly, Caritas avoids comparisons with other schools and aims not to 'sound competitive'. The college's core mission is 'to produce responsible and respectable graduates who are academically and professionally well educated and can fulfil the role of making contributions to the social and moral well-being of the community'.⁵¹ The ultimate goal is to provide study programmes for those who have fewer opportunities to pursue post-secondary education, but who wish to continue personal and professional development at any stage of their lives. Caritas lists a number of extracurricular services that are available to students, for example Pastoral Care Activities, Recreation/Sports Club, Career Service, and Health Services.⁵² Similarly, the Hang Seng Management College endeavours to make its messaging and support coherent: it seeks students seeking a well-rounded business education, and supports their learning aspirations with business-related internship opportunities.

To recruit the best local or international students, universities provide a wide range of fellowships and scholarships that are either publicly or privately funded. On the other hand, in response to growing interest by mainland households in Hong Kong and its degree programmes, local universities and colleges have increased the number of self-financing programmes. This is not a clear-cut process, as the growth of revenue-generating programmes raises administrators' concerns about public perceptions. To mitigate any wrongful interpretations of its outreach to the mainland and availability of scholarships, HKUST claims that its recruitment strategy on the mainland is geared to 'choose quality' and not to engage in 'planned recruiting'.⁵³ Conversely, CUHK selects mainland students based on 'planned recruiting'⁵⁴ which some argue aligns more closely with what mainland universities typically do to meet a particular regional target number in a programme. To communicate its messages more clearly and fully, CUHK has also developed a Student Ambassador Forum which enables current and prospective students to interact more, thus contributing to the prospective students' understanding of CUHK.

Hong Kong's universities and colleges make concerted efforts to accommodate students with disabilities. HKU encourages applicants with disabilities to apply and takes into account an applicant's serious motivation, determination, significant achievement in overcoming his/her physical/learning disadvantage, extra-curricular or life experiences. Applicants are strongly advised to inform HKU of any disability.⁵⁵ JUPAS has a special subsystem to help students access information about special assistance and facilities available to them during admissions. HKU and HKUST disabled applicants receive offers before the Main Round Offer results are announced on the university website. The message is more ambiguous in the case of college applicants with disabilities or special needs. They are advised to describe their condition on the application form. HKU SPACE states that this allows the college to better understand the applicant's requirements 'so that every effort can be made to meet his or her needs'.⁵⁶ On the other hand, Caritas states that 'all applicants will be considered on an equal basis' and the collection of information about the nature and degree of disability is used only to assess the availability of facilities needed to accommodate potential students.⁵⁷

50 <http://hkuspace.hku.hk/about-us>

51 Caritas Institute Mission <http://www.cihe.edu.hk/eng/about/ourrole/mission.html>

52 <http://www.cbcc.edu.hk/eng/student/sao/index.html>

53 <http://join.ust.hk/mainland/admission/policy.html>

54 <https://www5.cuhk.edu.hk/oafa/index.php/mainland/2011-08-03-07-08-48/2011-08-03-07-09-27>

55 http://www.asa.hku.hk/admissions/ug/prospectus/studying_application.html

56 <http://hkuspace.hku.hk/cc/application-and-admission/local-overseas-qualifications>

57 http://booking.cfhc.caritas.edu.hk/cfhc/app/m_add_applicant_all.jsp

Discussion

Universities and colleges in Hong Kong do their best to position themselves through their admission policies and practices, and to project an image of being responsible citizens, as well as strong local or regional competitors. Universities try to match the quality of students with programme capacities to the same extent that students try to match the quality of programmes with their personal aptitudes. The search for compatibilities prompts a complex balancing act in which there is a need to synergize admission demands, educational offers, institutional environments, and personal competencies. In attempting to balance these variables, educational stakeholders will definitely aspire to harmony (i.e. mutually satisfactory conditions for institutions and individuals), but can also encounter conflicts between the notions of equity and fairness, driven by both controllable and uncontrollable forces: for example variable educational attainments and income status of students and families; the consequences of an examiner's mistake in grading a formal examination; or subjective evaluations of interview performance.

With increasing frequency, admissions officers are advised by programme directors and teachers to give preference to students who exhibit intangible qualities, such as risk-taking, good judgment, associative thinking, interactivity, sophisticated communication ability, creativity and other “soft” skills that can be difficult to detect in formal standardized exams. The demand for such skills is on the rise as universities and colleges seek to cultivate successful alumni who take on leadership positions and can quickly adapt and readapt to changing labour markets, while spearheading innovative and competitive economies, or contributing to constructive and enriching social dynamics. The development of creative and entrepreneurial skills are most likely to be prioritized in university programmes, given the disturbing growth of unemployability rates among university graduates affected by tighter competition in the age of mass higher education. As university accountability standards change and some universities begin to produce reports on the employability rates of their graduates across the disciplines, efforts to match good students with good universities will intensify, particularly as both student and programme choice are becoming more internationalized.

Increasingly, universities will face complex ethical dilemmas as their desire to attract the best students collides with the goal to protect the institutional image of fairness and inclusiveness. More sophisticated notions of selectivity and access emerge to coincide with the worldwide shift from elite to mass higher education. University recruiters are not only urged to find solutions to issues around admitting talents regardless of their socio-economic status, but also to give second chances to learners who were unable to cope with the stress of examinations and failed in the first round. Wasted human capital is costly, both to families and economies. But as talent detection comes to rely less on formal examination scores, it becomes more difficult to sustain public trust in fairness and transparency especially when aspirations for higher status grow and competition signifies a rivalry among unequals. In cases of highly reputable university programmes with limited carrying capacities and tough admission standards, such tensions are even more pronounced. Identifying a satisfactory response to the problem of maintaining fairness and transparency is essential for meeting the long-term societal goals of retaining ethical standards, creating top-performing universities, and equipping political, economic and cultural institutions with the most deserving achievers.

Undoubtedly however, admission policies and practices will continue to evolve in the age of mass higher education, as tertiary education is inundated with a growing diversity of programme and degree providers (from traditional universities to MOOCS). The admission narratives and requirements will certainly differ among these providers generating a more complex medley of institutional expectations with regard to student qualifications and proficiencies, as well as available support schemes. Even within a single institution these narratives will multiply to meet the changing expectations and needs of academic divisions and disciplines, which are variably favoured

by stakeholders and markets, and pulled into various local, national, regional and global orbits. To be ready for the future, universities and colleges need to shape a more sophisticated support system that can reduce student anxieties and better align university and college programmes with students' talents and aspirations.

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The Transition to Higher Education in India

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Introduction

Higher education is essential for social and economic development of a nation. Today, an increasing number of countries see tertiary education as key to individual prosperity, economic security and the enduring strength of democracy. Besides the clear relationship between higher education and employment, nations are becoming conscious of the fact that there exists a deeper connection between higher educational attainment and the economy. For example, studies show that unemployment during recession is not caused by short-term cyclical layoffs but by structural job loss. What this implies is that when structural job loss takes place in an economy with increasing skill requirements, education and training become essential to enable people to get back to work (Groschen and Potter, 2003). In other words, higher education and training play a critical role in helping economies recover from recessions; they particularly help with the issue of 'jobless recovery.' It is, therefore, essential for countries like India that have (a) chosen the service-sector led growth path, (b) are dependent on sustainable domestic demand to minimize the impact of global recession and (c) are keen to maintain a competitive edge in the global economy, to expand their higher education systems.

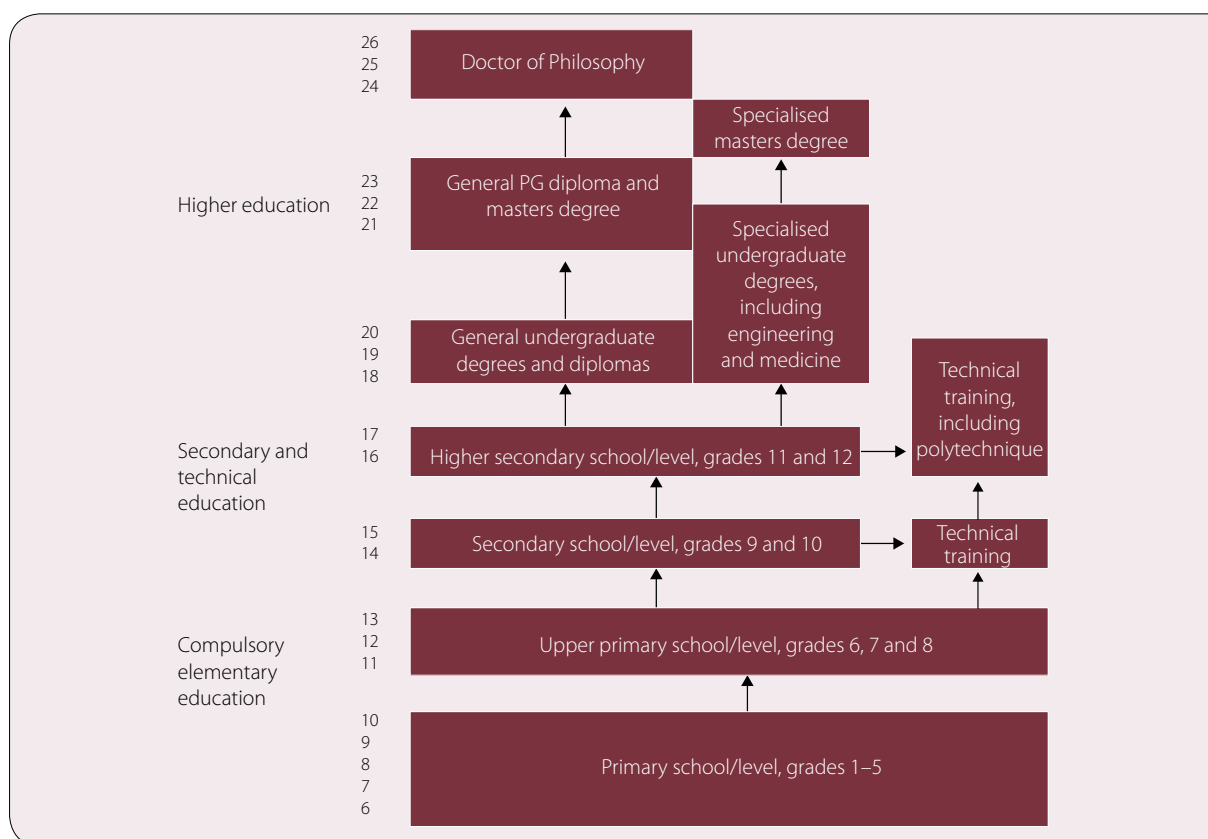
Widening of access to higher education is also essential for societies struggling to overcome socio-economic inequalities. Higher education helps them break away from the poverty trap by addressing the structural issues of deprivation and inequality by offering social, occupational and economic upward mobility to everyone in society – not only for the lower and middle class strata, but also to the upper strata. As such, the trend all over the globe is that countries increasingly recognize the critical role of higher education in national development. This is reflected in an unprecedented growth of higher education, in terms of institutions and enrolment, mostly in developing countries. Instead of joining the labour market, more and more graduates from secondary education in developing countries seem to be interested in transiting to higher education. Between 2000 and 2010 the percentage of adults worldwide who have received tertiary education rose from 19 to 29 according to UNESCO, and all predictions suggest that this growth will continue, albeit at a slower pace (Gibney, 2013). Global education trend projections also predict dramatic improvements in attainments at all levels of education in most developing countries including countries in South Asia currently struggling with issues of expansion, equity and excellence in higher education (Samir et al., 2010).

Since the early 1990s, India has been on a growth path that has necessitated substantial increases in public expenditure on education. Even though the investment in education is currently not at the desired level, the pattern of public spending on all levels of education has increased significantly. For example, over the two decades starting from 1990/91, public expenditure on education has risen almost 14 times from INR 196 thousand million to INR 2,721 billion in the 2010/11 (budget estimate) (MHRD, 2012). Accordingly, the education sector in India has experienced rapid expansion and change.

The central government has played the leading role in changing the trajectory of educational development, implementing a wide variety of changes in school as well as tertiary education subsectors. Large scale country-wide initiatives like the *Sarva Shiksha Abhiyan* (SSA), *Rashtriya Madhyamik Shiksha Abhiyan* (RMSA), the Mid-Day-Meal Scheme and teacher development

programmes along with legal provisions such as the RTE Act 2009 making eight years of formal schooling a right of every 14-year old child, have impacted significantly the school participation rate, at least at the elementary level. However, the twin challenges of improving internal efficiency of the school system and the quality of learning continue to bother policy planners both at the central and subnational levels. Even today, nearly half of the grade I cohort do not make it to grade X thereby limiting significantly the size of the eligible population for the first cycle of tertiary education. A much smaller proportion of girls, socio-religious groups, children from minority groups and children in difficult circumstances reach the final grade of school education in India. These trends have important implications for transition rates and expansion of higher education because of the fact that the Indian education system is organized in a fashion that promotes progression to tertiary education following linear paths (see Figure 1). Nevertheless, the development trends in the school sector during the last two decades show that resources and participation are rising strongly in the country.

Figure 1: An overview of the Indian education system and progression path to tertiary and technical and vocational education



Higher education too has witnessed rapid growth but at a relatively lower pace. Strong supply-side expansion and the falling incidence of poverty have contributed to rising enrolment in schools resulting in increased social demand for higher education. It may, however, be mentioned that the low level of internal efficiency and quality of learning is ailing school education, which in turn is putting supply-side constraints on the expansion of higher education. This is because of the fact that expansion of higher education is a function of the size of the pool of eligible graduates of the school education sub-sector.

However, India is making special efforts to cope with the rising social demand for tertiary education by expanding the networks of colleges and universities. The number of central universities – set up through legislation in the national Parliament and funded by the union government, and other

high quality institutions like the Indian Institutes of Technology, Indian Institutes of Management, National Institutes of Technology, and Indian Institutes of Information Technology, have doubled in recent years. Having reached the earlier target of a 15 per cent gross enrolment ratio in higher education by 2012, India has now set a target of increasing the gross enrolment ratio to 30 per cent by 2020. Presently the ratio is about 20 per cent. The Government of India has also launched a programme of expansion of higher education under the *Rashtriya Uchha Shikshya Abhiyan* (National Higher Education Mission).

As has been mentioned, the growth of higher education, both in terms of quantity and quality, depends upon the number of secondary school graduates that the school system produces. Unfortunately, the secondary education system has suffered a long period of neglect. The gross enrolment ratio, though increased over the years, is low: 65 per cent at lower secondary level (grades IX and X/age group 14–15) and 39.3 per cent at higher secondary level (grades XI and XII/age-group 16–17). Combined, the figure is 52.1 per cent in secondary (lower plus higher) education (in the age group of 14–17) in 2011–12. Grade XII is the terminal year of higher secondary or school education in India.

With a view to expand access to secondary education, the Government of India has launched a programme of universalization of secondary education called *Rastriya Madhyamik Shiksha Abhiyan* (RMSA). This aims for a fast expansion of lower secondary education which will have its own push effects on the demand for higher education. Moreover, transition probabilities to higher education are also influenced by economic status of households, attitudes towards higher education and economic expectations that change over time. Reduced poverty levels are also pushing up the social demand for higher education in India.

Also, efficient admission procedures are important to maintain the higher education system both in terms of quality and quantity. India has a complex system of multiple criteria for admissions in higher education. They include policies and procedures laid down by central government bodies, for example UGC, AICTE, NCTE and the Medical Council; and state government bodies, universities and other higher education institutions. Reforms are being talked about in this regard to ensure that the selection and admission criteria have predictive validity and that they would enable allocation of opportunities to those who are most likely to benefit academically. At the same time, as one of the important functions of higher education is to promote equal opportunities for all, admission to higher education in India is also determined by a set of affirmative policies that aim at improving equitable access to higher education.

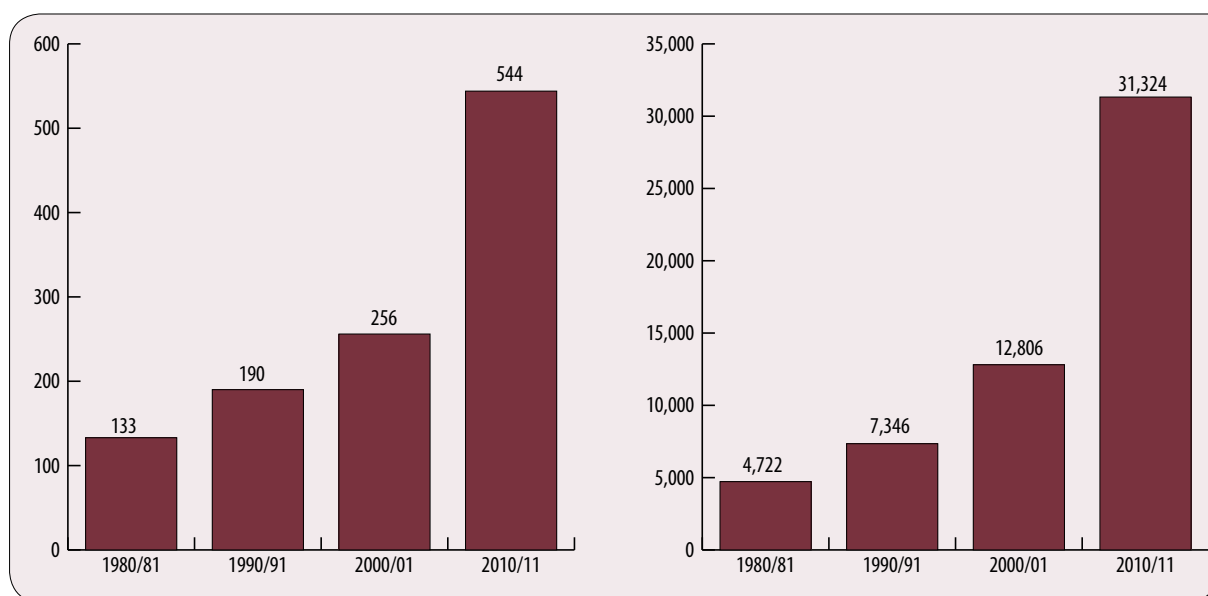
Against this background, this paper presents the prevailing post-secondary education situation in India by examining the trends in transition to higher education with a particular focus on selection and admission policies. It presents a short analysis of available data from secondary sources and selection/admission procedures and criteria adopted in the tertiary education sector in general and institutions of higher education in particular. Specifically, this paper attempts to assess the rate of transition from secondary to tertiary education by examining available data on enrolment and reviewing the admission policies in select higher education institutions. A few earlier studies on transition to higher education are based on household data, particularly NSS data on employment and unemployment (Basant and Sen, 2011; Azam and Blom, 2009). The focus of the present study is on undergraduate or first cycle selection and admission in higher education, although reference is made to selection and admission processes and criteria at other levels and types of higher education in India as well.

Trends in Access and Participation in Education in India

There has been significant expansion at all levels of education in India during the post-independence period, more particularly during the last quarter century. Today, the Indian education system represents one of the largest in the world. The number of schools, colleges and universities has grown phenomenally. Enrolment in secondary education (grades 9–12) has increased significantly from 27.6 million in 2000/01 to 51.2 million in 2010/11. The gross enrolment ratio in higher secondary education has gone up from 27.8 per cent in 2004/05 to 39.3 per cent in 2010/11 (MHRD, 2012). In higher education, the growth has been more marked. The number of universities has increased by about four times and the number of colleges by about six and half times during the last four decades, as shown in Figures 1 and 2. Growth has been very rapid since the beginning of the 1990s. More than one-third of the colleges in India have been established during the last five years (FICCI, 2012). During the last decade, the number of colleges has grown at an average annual growth rate of 9.4 per cent, whereas their growth rate was 5.7 per cent during the 1990s.

Figure 1: Growth of universities in India

Figure 2: Growth of colleges in India



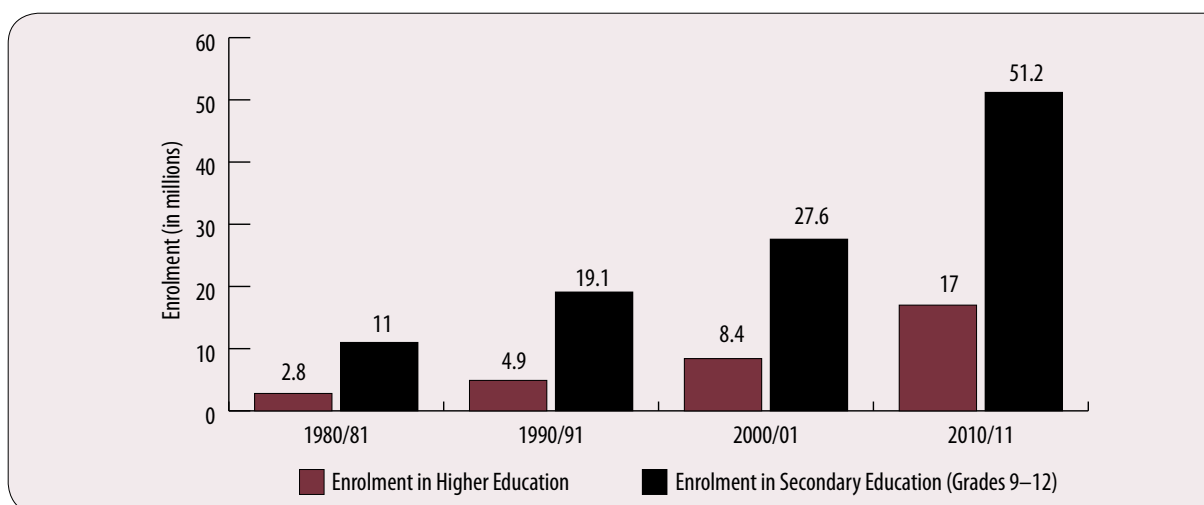
Source: MHRD, *Selected Educational Statistics, various years*.

Enrolment in higher education has grown by more than six times during the last four decades. The gross enrolment ratio approached 18 per cent in 2011–12 and 19.4 per cent in 2013/14. The target for expansion of higher education in India is 30 per cent gross enrolment ratio by 2020. The average annual growth rate of enrolment in higher education was 7.3 per cent during the last decade; it was 5.5 per cent in the 1990s (see Figure 3).

The private sector is now the leading provider of higher education in India. In terms of number of institutions, the share of the private sector in higher education was around 64 per cent in 2011–12; around 59 per cent of enrolment was in the private higher education institutions. General – non-professional/technical courses of study – account for the largest share of enrolment in higher education. Professional/technical courses account for one-third of the total enrolment in higher education. Enrolment in professional and technical courses like engineering and medicine has registered significant growth during the last five years. Expansion of engineering, education and medicine faculties was phenomenal between 2007–08 and 2011–12. The average annual growth rate of enrolment in engineering was as high as 25 per cent during this period; it was 16 per cent for education and 15 per cent in medicine. Commerce and management programmes have also expanded significantly during this period registering 8.5 per cent annual growth in enrolment (see Table 1).

It may also be stated that in higher education as a whole, undergraduate degree programmes account for more than 87 per cent of the total enrolment in higher education in the country. Master's and research programmes account for the rest.

Figure 3: Growth of enrolment in secondary and higher education in India



Source: Based on Selected Educational Statistics and Statistics on Higher and Technical Education, MHRD, various years.

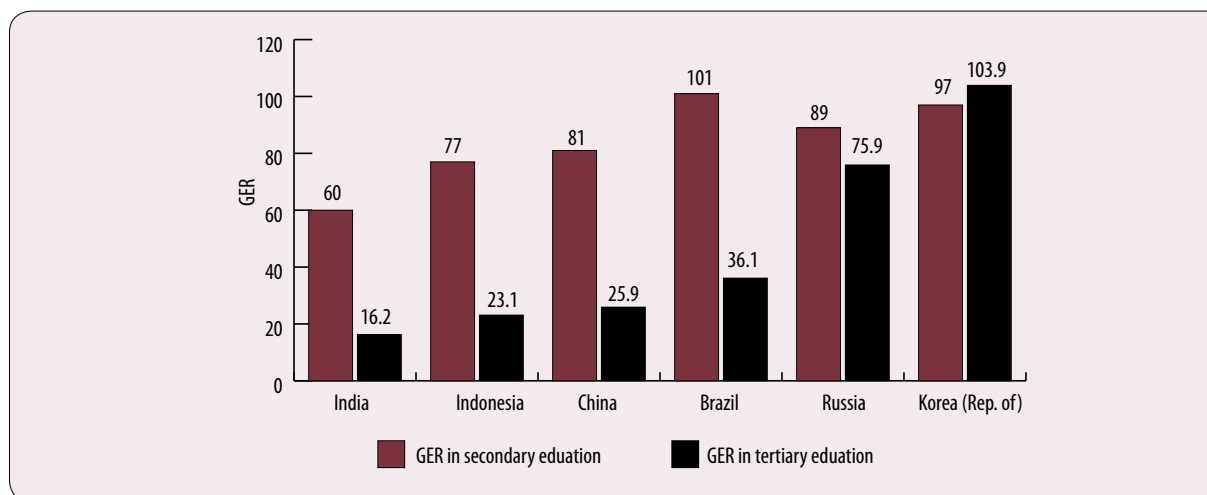
Table 1: Faculty-wise growth in enrolment in India, 2006/07 to 2011/12

| Faculty | Total Enrolment in 2006-07 (in millions) | Percentage of Total Enrolment in 2006-07 | Total Enrolment in 2011-12 (in millions) | % of Total Enrolment in 2011-12 | Average annual Growth Rate in Enrolment, 2006-07 to 2011-12 (%) |
|------------------------------------|--|--|--|---------------------------------|---|
| Arts | 5.5 | 39.60 | 6.6 | 30.20 | 3.70 |
| Science | 2.5 | 18.40 | 3.1 | 14.00 | 3.80 |
| Commerce and Management | 2.3 | 16.50 | 3.4 | 15.80 | 8.50 |
| Education | 0.6 | 4.50 | 1.3 | 6.00 | 15.90 |
| Engineering | 1.8 | 13.00 | 5.5 | 25.00 | 24.80 |
| Medicine, Nursing and Pharmacy | 0.6 | 4.30 | 1.2 | 5.50 | 15.00 |
| Agriculture and Veterinary Science | 0.1 | 0.70 | 0.1 | 0.60 | 5.40 |
| Law | 0.3 | 2.20 | 0.3 | 1.60 | 3.00 |
| Others | 0.1 | 0.80 | 0.3 | 1.30 | 19.10 |
| Total | 13.9 | 100 | 21.8 | 100 | 9.5 |

Source: MHRD, Selected Educational Statistics, various years.

While in terms of absolute numbers, the performance of the system has been impressive. The total enrolment in higher education is about 20 million – which exceeds the total population of many countries. But in terms of gross enrolment ratios, secondary and tertiary levels have not developed much, particularly when compared to BRICS countries and countries in South-East Asia. The ratios in India are much lower than the average of the developed countries, the average of the developing countries and world averages.

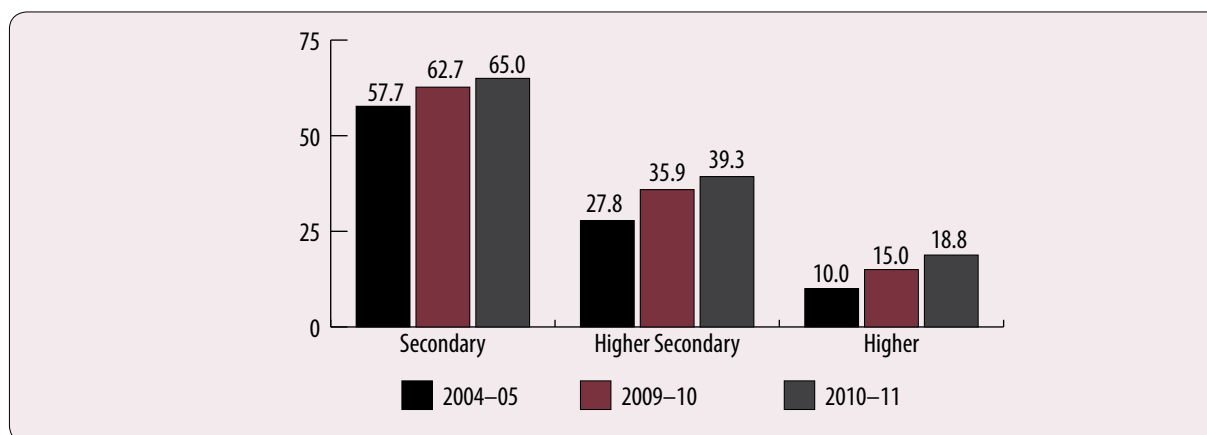
Figure 4: International comparison in GER in secondary and tertiary education



Source: Based on UNDP (2013), Human Development Report 2013.

An important point worth noting in India is the difference in the gross enrolment ratio between secondary and higher education, which is very high. The ratio in higher secondary is nearly 40 per cent, while in higher education it is below 20 per cent in 2010–11 (see Figure 5).

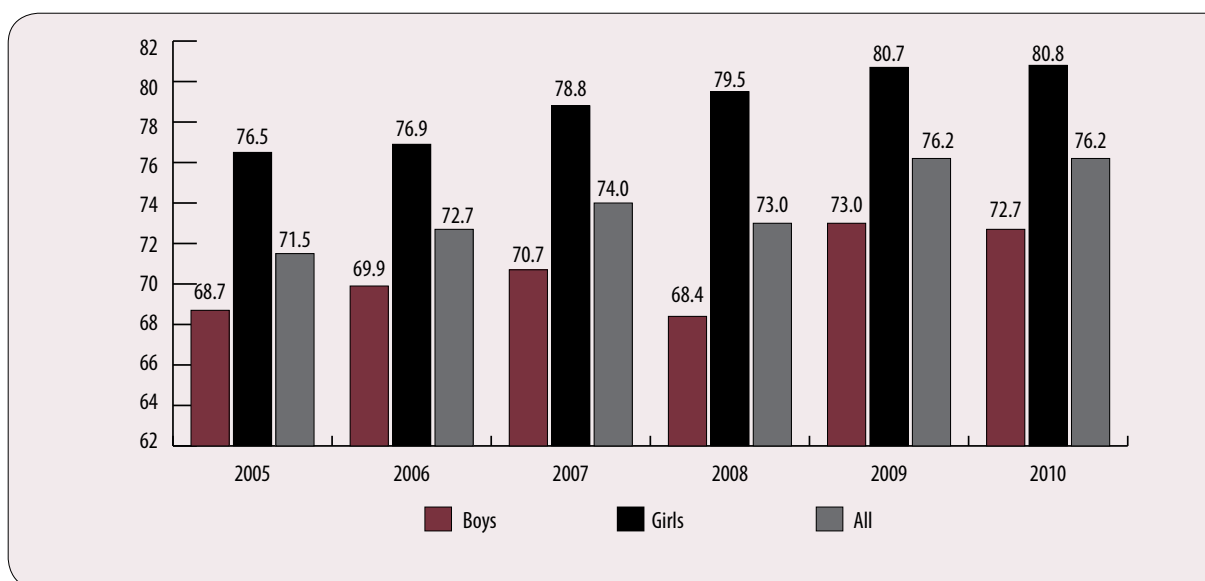
Figure 5: Gross enrolment ratio in secondary and higher secondary education in India



Source: Based on Selected Educational Statistics and Statistics on Higher Education, MHRD, various years.

These figures imply low transition from secondary to higher education though the rate of passes in higher secondary level-end examinations is reasonably high, as shown in Figure 6. It may be underlined that the graduation rate or rate of pass percentage at higher secondary level ranged between 64 per cent in 2006 to 77 per cent in 2010. Among women, the ratio crosses 80 per cent.

Figure 6: Pass percentage in higher secondary board examinations (%)



Source: MHRD, *Results of High School and Higher Secondary Examinations*, New Delhi: Ministry of Human Resource Development, Government of India

It is also necessary in this context to note that the dropout rates are very high in school education. Nearly 50 per cent of the children who enrol in grade I drop out before completing Grade X, that is, lower secondary. High rates of dropout at secondary level mean low transition rates to and low gross enrolment ratios in higher education.

The Transition to Post-Secondary Education

There have been limited attempts to study the transition to higher education in India. The few studies on the transition to higher education are based on household data collected in various NSS rounds. These studies also use different methods to estimate transition rates to higher education. Almost all of these studies find either low transition rates or low transition probabilities to higher education, both in rural and urban areas and across socio-religious groups.

Azam and Blom (2009) have attempted to study transition to higher education by analysing the employment-unemployment schedule data collected in various NSS rounds from 1983 to 2004. They find that the transition rate¹ from higher secondary to tertiary education was 71.2 per cent for all categories; it was 79.8 per cent in urban India and 62.6 per cent in rural India; and there was not much difference in transition rates of males and females. Moreover, differences in the transition rates across states and between socio-religious groups are due to differences in higher secondary graduation rates.

The economic status of the household is a key determinant of the transition to higher education. In fact, it explains participation in school education. In 2004, the transition rate from the bottom income quintile was only 52 per cent, and for the top income quintile it was 79 per cent. Moreover, students from the top quintile are more likely to attend technical and professional courses.

In their attempt to study access to higher education in India, Basant and Sen (2011) find that lower participation in higher education results both from household circumstances and the presence of supply-side constraints. Interestingly, 'deficits' in the participation in higher education among

¹ Their definition of Transition Rate = [(Total population in the age group 18–23 who either attend or completed higher education)/(Total population in age group 18–23 who have completed higher secondary education)]*100.

marginalized groups are not significant. Moreover, deficits for the underprivileged groups are found to be significantly lower among the eligible population, even after accounting for a variety of factors that influence participation in higher education. This implies that when persons from an underprivileged group cross the school threshold, their chance of going to college is very high. These findings have important implications for the rationale for implementing affirmative action in higher education.

Another study by Bhaumik and Chakrabarty (2011) attempts to study the transition probabilities to higher education in India on the basis of data from various NSS rounds on employment and unemployment data and using a sequential logit model. They argue that transition probabilities in education are a function of individual and household characteristics and also the economic environment. Their results indicate very low overall transition probabilities to higher education in both rural and urban areas. They find that transition probabilities for males are higher than those of females for all educational levels in both rural and urban areas. In urban India, a male has a 13.06 per cent probability of making the transition to tertiary education, while the corresponding probability for a rural male is just 5.04 per cent. The corresponding transition probabilities for females are 5.88 per cent in urban areas and less than 1 per cent in rural areas. Further, the impact of caste and religion on the transition probabilities of males and females are roughly similar.

The present study, however, attempts to estimate transition rates to higher education on the basis of enrolment data collected as part of school education statistics, and not on the basis of household data. Limitations of data in India do not make it possible to make accurate estimates of transition rates from higher secondary education to the first cycle of higher education, that is, undergraduate, post-school diploma and certificate programmes. The data required for estimating the transition rate to higher education are: grade-wise enrolment at the higher secondary level of education and graduates of higher secondary education; new admissions in the undergraduate programmes, including data on lateral entry for a given academic year; and enrolment in post-school diploma. However, such detailed data on higher education are not available in India. Enrolments in higher secondary are available by grades. So we have data on enrolment in grade XII. Data on enrolment in higher education in the first year of undergraduate courses are not available. We have enrolment in higher education as a whole in all years of study put together, without year-wise break-up. As the required disaggregated data are not available, it is not possible to make precise estimates of transition rates.

In the absence of the required disaggregated data, an attempt has been made here to assess the transition to higher education in two ways as follows:

Transition Rate: Generally the transition rate in higher education is simply defined as the percentage of students enrolled in the last year of higher secondary level going into higher education.² As actual data on admissions or enrolments in the first year of higher education are not available, they are estimated here, taking the total enrolment in each course of undergraduate courses, some of which (e.g. general arts, science, commerce courses) are of three years duration and some (e.g. professional) are of four and five years. By dividing the faculty-wise enrolment by the respective average duration of the programme, we get an estimate of enrolments in the first year of study. Although students may, after joining a course, drop out during and/or after the first year and before completing the course in higher education, it has been assumed that enrolments in higher education are equally distributed across all the years. These estimated enrolments are compared with enrolments in grade XII, the final year of higher secondary level, to arrive at an estimate of the transition rate in higher education. Perhaps, given the limitations of data, these can be considered as the best estimates.

² Transition Rate = (Enrolment in grade XII year t /Enrolment in the first cycle of higher education in year $t+1$)*100, without making any adjustments for repeaters in the first cycle of higher education.

Although this seems to be the best way to estimate the rate of transition to higher education, it suffers from major limitations. After all, all students do not graduate from higher secondary level. Some drop out before the final year-end board examination and some do not succeed in the examination. In fact, in many schools, private in particular, all students in grade XII are not even allowed to appear at the year-end final board examination. They are screened by a pre-final board examination conducted internally. Only those who succeed or succeed well are allowed to proceed for the final board examination. This helps these schools claim a high performance because of high pass percentages. Pass percentages are calculated based on the number of students appearing in the examination not the total number of students enrolled in Grade XII, and who pass the examination,

‘Eligible’ Transition Rate: Alternatively, one can think of a different transition rate, which for convenience is called here ‘eligible transition rate’, which takes into account some of the above problems. To take into account the eligibility condition for transiting to higher education, one has to consider higher secondary graduates (not enrolment in grade XII) and compare the same with the estimated enrolment in the first year of degree programmes. The eligible transition rate is thus defined as the number of students enrolled in the first year of higher education as a proportion of the number of students who graduated from the higher secondary level. This is called here the eligible transition rate as it is based on the number of students who are actually *eligible* to enter higher education, having passed the higher secondary level examination. – an essential condition for consideration for admission in higher education. This ratio can be higher than the normal transition rate as it excludes dropouts and failures in grade XII in the denominator.

Such estimated transition rates are given below in Table 2.

Table 2: Transition rates in higher education in India (%)

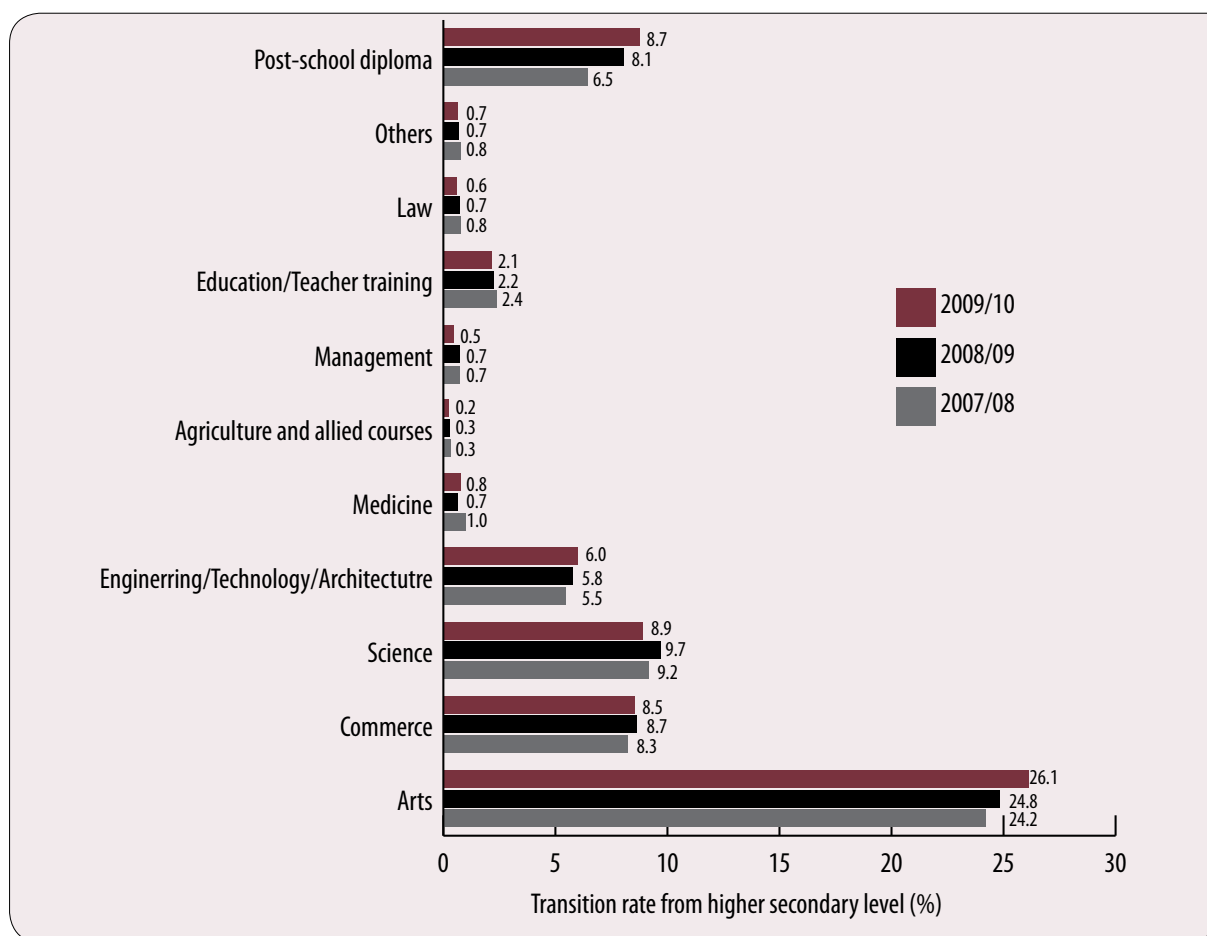
| | Transition Rate | Eligible Transition Rate |
|---------|-----------------|--------------------------|
| 2007–08 | 60.0 | 60 |
| 2008–09 | 58.1 | 62 |
| 2009–10 | 63.9 | 63 |

These estimated eligible transition rates are surprisingly not higher than the normal transition rates. This is because enrolment in the first cycle of higher education may include some students who took higher secondary board/intermediate examinations as private candidates which are not reported as part of the higher secondary school pass-outs in the regular school statistics. It could also be because of limitations in disaggregating enrolment data in higher education to get the estimated enrolment data for the first cycle/year of tertiary education.

The estimates in Table 2 can be considered as providing very crude clues about the student flow to higher education. They are not precise rates of transition from higher secondary to higher education. Apparently, the transition rate from higher secondary to higher education in India varied between 60 per cent and 63 per cent during 2007–08 and 2009–10. These findings are very close to what have been found in studies based on NSS data by Azam and Blom (2009).

It is interesting to note that most of the higher secondary graduates transit to a few streams of higher education – Arts, Science, and Commerce (generally known as general education streams), Engineering/Technology, and Education/Teacher Training; while transition to other streams, particularly, medicine, management and law is meagre (see Figure 7). This can be understood to some extent by the admission procedures.

Figure 7: Faculty-wise eligible enrolment rates in higher education in India, 2007/08 to 2009/10



Selection in and Admission to Higher Education

Admission in higher education in India is guided by two major considerations: (a) cognitive abilities of the students and (b) protective discrimination policies simply known as ‘reservation’. While the former criterion promotes merit and excellence in higher education, the latter aims at promoting equality and diversity in participation in higher education.

First, merit as the criterion for admission. Admission to general higher education (e.g. B.A., B.Sc., B.Com) is usually done by the respective universities and colleges based on the merit of the students measured by the percentage of marks obtained in the higher secondary board examination. For example, the University of Delhi announces cut-off marks in the higher secondary board examination for admission to each first degree course and college. Students who secure marks above the cut-off are almost automatically given admission to the courses of study and colleges of their choice. Sometimes personal interviews are conducted as an additional method to confirm the abilities of the students. Entrance examinations for admission to general courses at the undergraduate level are rare. But wide variations exist in admission criteria adopted by different institutions of higher education both at undergraduate and master’s level courses of study. Merit based selection policies are based on the premise that a strong performance in the final year of secondary school is a good predictor of success in college/university.

It is also important to note in this context, that there are wide variations in the standard of examinations conducted by various boards of secondary education. Apart from two central boards of secondary education – the Central Board of Secondary Education (CBSE) and the Council for

Indian School Certificate Examination (CISCE) – there are as many as 32 boards of examinations conducted by the various state governments. There are no uniform standards and no formulae for equalizing the scores secured by students in different board examinations. So students with a similar percentage of marks in the higher secondary board examination from different states have different levels of cognitive ability.

Hence, some feel the need for a single national level common entrance examination. In the area of professional/technical and medical education, a few national level common entrance examinations are conducted. These national level examinations are widely used in the context of admissions to central government institutions of higher education. But as mentioned earlier, there are also entrance examinations conducted by various state governments mainly used for admission to the public and private institutions of higher education in the given state. Further, in addition to the 32 boards mentioned above, some universities and institutions of higher education conduct their own entrance examinations. A few major entrance tests conducted for admission into higher professional education are listed in Box 1 and their salient features are described in brief in Table 3.

Box 1: A few major entrance examinations for admission in higher and professional education

- All India Engineering Entrance Examination (AIEEE)/ Joint Entrance Examination (JEE) conducted by CBSE for admission to various undergraduate engineering and architecture courses;
- All India Pre-Medical Test (AIPMT) conducted by CBSE for admission to various MBBS and BDS courses;
- Common Admission Test (CAT) conducted by IIMs for selecting students for their business administration programmes;
- Common Law Admission Test (CLAT) conducted jointly by National Law Universities for admission to various undergraduate and post-graduate programmes in law;
- Common Management Admission Test (CMAT) conducted by the All India Council for Technical Education (AICTE) for admission to all management programmes approved by AICTE;
- Engineering Agricultural and Medical Common Entrance Test (EAMCET) conducted by the Jawaharlal Nehru Technological University, Hyderabad for admission to various engineering, medicine and agriculture courses in Andhra Pradesh;
- Graduate Aptitude Test in Engineering (GATE) conducted by the Indian institute of Science and IITs for admission to various undergraduate engineering and science courses;
- Indian Institute of Technology Joint Entrance Examination (IIT-JEE) and now Joint Entrance Examination (JET) conducted by IITs for admission to various engineering courses in IITs and Indian School of Mines;
- National Entrance Screening Test (NEST) conducted by the National Institute of Science Education and Research (NISER), Bhubaneswar and the Center for Excellence in Basic Sciences (UM-DAE CBS), Mumbai for admission to various undergraduate science courses in these two institutions; and
- Xavier Aptitude Test (XAT) conducted by Xavier Labour Relations Institute (XLRI), Jamshedpur for business administration courses.

State Level Tests/Examinations

- KEAM (Kerala Engineering Agricultural Medical) entrance examination conducted by the Office of the Commissioner of Entrance Exams, Government of Kerala for admission to various professional degree courses in Kerala;

- MP-PET (Madhya Pradesh Pre-Engineering Test) conducted by the Professional Examination Board of Madhya Pradesh for admission to engineering colleges in the state;
- Odisha Joint Entrance Examination (OJEE) is a state-government controlled centralized test for admission to many private and governmental medical, engineering & management institutions in Odisha;
- Rajasthan Pre-Engineering Test (RPET) conducted by the Board of Technical Education (BTER), Jodhpur for admission to undergraduate programmes in engineering colleges in the state;
- SEE-UPTU (State Entrance Examination - Uttar Pradesh Technical University) conducted by Gautam Buddha Technical University and Mahamaya Technical University for admission to engineering, architecture, pharmacy and management courses in institutions affiliated to these two universities in UP;
- Tamil Nadu Professional Courses Entrance Examination (TNPCEE) conducted by Anna University on behalf of the Government of Tamil Nadu for admission to engineering and medical colleges in the state; and
- West Bengal Joint Entrance Examination (WB-JEE) conducted by the state government for admission to private and governmental medical and engineering institutions in West Bengal.

Wide variations exist in admission policies adopted by various institutions of higher education, particularly technical and professional institutions resulting in great variations in the quality of students admitted. Some institutions admit students on the basis of a common entrance test of a high standard on an all India basis or at state level. Other institutions admit students on the basis of marks obtained in the qualifying examinations conducted by various state boards which are associated with wide variations in their course structure, teaching process and examination system. Also, cut off marks for admission fixed by various state governments are different and keep on changing every year.

It may also be mentioned that some institutions do not use any entrance examinations to select students for admission. They are mainly guided by the marks obtained at the higher secondary level examination. In a sense, there is no uniformity at all in using merit as a criterion for admission. Merit is interpreted in different ways, but mainly in terms of examination scores in board examinations or entrance examinations or both.

But for a few institutions, the selection criteria in different fields and programmes of study are often decided by the government – central or state, leaving little space for the participation of individual institutions in the process. As such, the process does not facilitate effective allocation of students to various fields and programmes of study by instructional capacity or student preference. Further, branding of institutions often distorts student preference and introduces institutional bias in admission to the courses being offered. The overall impact is a truncated or a distorted growth path and unequal access to higher education in the country.

In short, selection and admission to engineering, medicine and other programmes in the professions are mostly done on an all India basis and/or on a state basis with common/joint entrance tests, which are well structured and allocate students to institutions according to instructional capacity, students' location and their preferences. However, institutional distortions do exist with the provision of the management quota in admission to privately managed institutions which are very large in number. The management quota refers to a small number of admissions which are completely at the discretion of the management bodies, not academic staff, of the institutions, and they can cause distortions of various kinds. This allows management bodies to offer admission to students who do not take/qualify in the entrance examination, and charge them any amount of tuition and other fees.

On the whole, the proportion of higher secondary graduates who experience the selection process to the professional/technical programme is very small, where performance in the qualifying examinations or student's capacity to pay (mostly in the private sector) matter. Admission to general higher education and teacher training/education is mostly done at the institutional level with university/college specific admission policies.

As mentioned earlier, there are entrance examinations for admission to professional higher education, particularly engineering, management and medicine; but no major similar entrance tests exist for general higher education – first degree or master's degree level. However, a few institutions do conduct entrance examinations for admission in master's level programmes in general education. For example, the Jawaharlal Nehru University (JNU), New Delhi conducts all India entrance tests to admit students mostly to postgraduate and research programmes. The Jawaharlal Nehru University (JNU), a central university, conducts an entrance examination every year. To appear in the examination a student needs to apply offline usually in February. Once shortlisted, candidates are required to sit the entrance examination in May. The examination is conducted in Hindi and English in all state capitals and is usually based on the curriculum of the respective subject areas/courses. It is criticized because in poorer states where students use their vernacular language at school, they are underrepresented in the list of selected candidates for admission to JNU. On the basis of the scores obtained in the written test, a merit list is prepared for viva-voce. The final list of selected candidates on the basis of merit is prepared for admission to various courses in July every year. An important feature of the JNU admission policy is that it gives due preference to candidates from educationally backward states (5 and 3 points are added to the examination scores, depending upon the level of backwardness of the state) and from socially disadvantaged communities (women get 10 points as against 5 points for men). JNU aims at maintaining an all India character in its admissions.

Table 3: Brief description of the standardized tests/entrance examinations for admission to higher education in India

| Name of the test/ Exam. | Objectives, organizing authority and key features | Eligibility and structure | Future prospects |
|---|---|---|---|
| All India Engineering Entrance Examination (AIEEE)/ Joint Entrance Examination | Originally started in 1960, presently it is organized by the Central Board of Secondary Education (CBSE) in India since 2002. The national level test is for admission to various undergraduate engineering and architecture courses in institutes accepting the AIEEE/ JEE score, mainly 30 National Institutes of Technology (NITs) and 5 Indian Institute of Information Technology (IIITs). Since April 2013, the examination has been replaced by a reformed Joint Entrance Examination (JEE) – into main and advanced. | The examination consists of only two papers: Paper 1 for B.E./B.Tech courses and Paper 2 for B.Arch courses. A candidate can opt for one or both the papers. Paper 1 has three sections: Mathematics, Physics and Chemistry with equal weight for each subject. Each section consists of multiple choice objective-type questions each of which has four choices. Out of the four choices for a given question, only one choice is correct. Paper 1 has a negative-marking scheme wherein an incorrect answer is negatively marked with one fourth of the maximum marks allotted to the question. Paper 2 has three sections: Mathematics, Drawing, and Aptitude. Mathematics, and Drawing sections have multiple choice objective-type questions and the Aptitude section has drawing-based questions. The duration of each paper is three hours. The questions are based on a syllabus that is common to syllabi of all the state boards in India and the Central Board of Secondary Education. Candidates can opt for question papers either in English or in Hindi language. The examination was conducted in offline pen and paper mode until 2010. The number of attempts which a candidate can avail at the examination is limited to three in consecutive years. Candidates are ranked on an all India basis and state basis. Thus, they have an All India Rank and a State Rank. | The Ministry of Human Resource Development has announced its plans to replace JEE by 2013 with a common entrance test for all government engineering colleges which will be called Indian Science Engineering Eligibility Test (ISEET). |
| Indian Institute of Technology Joint Entrance Examination (IIT_JEE)/ Joint Entrance Examination (JEE) | Organized by IITs in India every year, it is used as the sole admission test by the fifteen Indian Institutes of Technology (IITs), Indian School of Mines and IIT BHU (which has been converted now to IIT, BHU). In 2013, it was replaced by the Joint Entrance Examination, held in two phases. Phase 1 is JEE Main and the second stage of the test is JEE Advanced. JEE, an all India common entrance examination is conducted for admission in various engineering courses like B.Tech, B.E, B.Arch and B. Planning under the direction of the Ministry of Human Resource Development (MHRD). | JEE is being conducted in two parts- JEE-Main and JEE-Advanced. JEE-Main exam is for admission to NITs (National Institute of Technology), IIITs (Indian Institute of Information Technology), other Central Funded Technical Institutes, etc. and JEE-Advanced is for admission in IITs (Indian Institutes of Technology), Banaras Hindu University (IIT-BHU) and the Indian School of Mines (ISM), Dhanbad. In September 2013, IIT Council approved the decision of the JAB (Advanced) to continue with the two-phase JEE pattern for 2014. The JAB of the Indian Institutes of Technology (IIT) have decided to continue with the offline format (paper and pencil) of JEE Advanced for 2014. JEE is criticized on the basis of the decision of the IIT Council to give a chance to students making the top 20% from various boards in the class 12 examinations. This decision, it is argued, would go against the poor, who do not have the opportunity to study in elite schools. Moreover, IIT-JEE is conducted only in English and Hindi, making it harder for students where regional languages are more prominent. | |

| | | | |
|---|--|--|--|
| <p>All India Pre-Medical Test (AIPMT)</p> | <p>An annual all India entrance examination conducted by the Central Board of Secondary Education (CBSE), Delhi for admission to MBBS and BDS courses in several medical colleges around the country. Presently, 15% of the total seats in all medical and dental colleges run by the Union of India, state governments, municipal, or other local authorities in India, except in the states of Andhra Pradesh and Jammu and Kashmir, are reserved for candidates from other states who pass this examination. Since 2010, the examination has been modified.</p> <p>It aims at making medical education available on an equitable basis to all regions of the country and to foster inter-regional exchange. Since 2006, reservation for SC, ST and OBC have been introduced in AIPMT.</p> | <p>There are two stages to the examination: Level 1 and Level 2. Level 1 consists of 200 questions based on NCERT books, especially, biology. Level 2 is the main examination, which tests the students on physics (25%), chemistry (25%), and biology (50%).</p> <p>Effective 2010, the pattern of AIPMT is being changed. Due to complaints about the unreliability of the subjective main examination, it has been made completely objective like the preliminary exam. The preliminary examination consists of 200 questions while the main exam consists of 120 questions. The duration for both the examinations is 3 hours.</p> <p>OBC reservation is being implemented under government directives, but only in central institutes (i.e. not in most of the colleges covered under AIPMT). About 1900 MBBS and approximately 250 dental seats are available through AIPMT.</p> <p>AIPMT is criticized for being conducted only in English and Hindi, making it harder for students where vernacular is more prominent.</p> | |
| <p>Common Admission Test (CAT)</p> | <p>It is a computer based test to assess students' quantitative ability, data interpretation, verbal ability and logical reasoning. The Indian Institutes of Management (IIMs) started this exam and use the test for selecting students for their business administration programmes. In August 2011, it was announced that IITs and IISc would also use the CAT scores, instead of the Joint Management Entrance Test (JMET) to select students for their management programmes from 2012-14 year.</p> <p>It is conducted by the Indian Institutes of Management (IIM) as a prerequisite for admission to various management programmes of IIMs, IITs, IISc, NITs, Faculty of Management Studies (FMS) and a few other institutions. A candidate can appear for CAT only once during the 20-day testing window. The test score is valid for admission to the forthcoming academic year only.</p> | <p>The CAT uses multiple versions of the test. Hence, there are two types of scores involved, raw score and scaled score. The raw score is calculated for each section based on the number of questions one answers correctly, incorrectly, or omitted. Candidates are given +3 points for each correct answer and -1 point for each incorrect answer. There are no points for questions that are not answered. The raw scores are then adjusted, as necessary, through a process called equating. Equated raw scores are then placed on a common scale or metric to ensure appropriate interpretation of the scores. This process is called scaling.</p> <p>Three scaled scores are presented for each candidate: an overall scaled score and two separate scaled scores for each section. As the two sections evaluate distinct sets of knowledge and skills, scores do not correlate across sections. A high score in one section does not guarantee a high score in another section. Percentile rankings are provided for each individual section as well as for the overall exam score.</p> | |

The brief discussion on various key all India entrance examinations for admission to courses in engineering, management and medicine highlights one major concern: that they have become the basis for an ever growing coaching industry in the country and as such the tests are indirectly patronized. They generally keep students from disadvantaged communities out of the elite institutions as they lack the ability to pay the high fees for coaching. In addition, the languages (English and Hindi) in which these exams are conducted also discriminate against the disadvantaged. These examinations also use different interpretations of merit and accordingly, assessment methods. Because of branding, courses in IITs, NITs, IIMs and IISc are oversubscribed leading to fierce competition often making it difficult to select from the highly qualified pool of students. Courses in electronics engineering, IT and computer sciences in engineering faculties are also oversubscribed. In addition, uneven awareness about these tests and entrance examinations also make certain students disadvantaged in accessing higher education in these institutions.

There is an important effect of these entrance tests on students in secondary education. Students prepare for entrance tests, mainly in professional education, from grade VI onwards, that is, from the beginning of upper primary education (if not earlier) because many entrance examinations are tough and competition for admission in high quality, mainly public institutions is extremely severe. Further, as students prepare for multiple tests, they often neglect their main course of study at higher secondary level. Many private secondary schools which often offer coaching simultaneously also pay relatively less attention to secondary education (subject to normal average performance – a good pass mark in secondary board examination) and more to coaching in the subjects relevant for entrance examinations. Often the coaching system adds much stress to the already stressed students, and it imposes an extra financial burden on parents.

Reservation in Higher Education: A Policy to Promote Equity in Higher Education

To correct historical disadvantages suffered by certain social groups of the population identified by caste categories, the Constitution of India provides for reservation (quotas) of a good proportion of seats in higher education to certain caste groups listed as Scheduled Castes, Scheduled Tribes and Other Backward Communities.³ Based on the composition of the total population, the following proportions are reserved for these respective groups:

| | |
|---|--------------|
| Scheduled castes | 15% |
| Scheduled tribes | 7.5% |
| Other backward communities | 27% |
| Total constitutional reservation | 49.5% |

These proportions are more or less proportionate to their representation in the total population. In addition, there is also reservation for physically challenged students to the extent of 3.0 per cent of the total admissions. In almost all cases, lower cut-offs in the scores in entrance tests and also in the qualifying examinations are used for admission of these less advantaged groups of students. Further, additional support in terms of extra teaching is offered in many public institutions; and support in the form of special educators and rehabilitation professionals (for physically challenged) are also available.

³ In fact, the history of affirmative action of extending privileges to socially backward castes dates back to 1882 (as recommended by the Hunter Commission) and subsequently the Government of India Act in 1935 (based on the Pune Pact between Mahatma Gandhi and Dr. B. R. Ambedkar) (Basant and Sen, 2011). Southern states were the front runners in making their own list of backward castes. Moreover, the affirmative action through scholarship schemes to increase access to tertiary education became more visible during the ninth plan (1997–2002).

In addition, reservation is also provided in most state institutions, public and private, for a small number of admissions for students coming from other states in India. This is to promote national integration. Nearly 85 per cent of the admissions are reserved for students belonging to the state in which the institution is located while the remaining 15 per cent is for students from other states. Central institutions do not have such reservation as their admissions are open to all. Institutions also have a similar provision for students from foreign countries, generally as a few additional seats.

These reservation policies are a matter of extensive research. Many studies have found that they have been very effective in improving access of the weaker sections of society to higher education in India (Weisskoff, 2004); while some studies have also noted that these policies have not been adequate in improving completion rates either at high school or university levels or both. There are also strong arguments against these reservation policies. They are argued to obstruct the fair selection of students to higher education on the basis of merit. It is argued that the social backwardness of these groups pertaining to their educational attainments does not automatically establish the case for their 'unfair' access to higher education. Further, it is argued that the practice of reservation favours the elites' access to higher education excluding the really disadvantaged (Swaminathan, 2006). In fact, it is well established that the difference in deficits in households and the individual characteristics of eligible populations including those from socio-religious disadvantaged groups who cross the threshold of school education are negligible (e.g. Azam and Blom, 2009). Hence affirmative action like reservation in tertiary education would favour the upper strata of the underprivileged who are not much different from those of the general population. Reservation in higher education would thus promote hierarchy and inequality among the underprivileged rather than improving equity in tertiary education. It is simply not possible to address the issue of social equity in tertiary education through affirmative action as it is conditional on the level of equity achieved in the school education sector.

Over the years, the overall size of the reserved categories in total admissions in higher education has increased. For example, 'other backward castes' was added as a group only in the 1990s. There have been demands and corresponding public action to add many other castes to the lists of scheduled castes or other backward castes. Further, while the Constitution of India (1950) had provided for reservation for only a 10-year period, that is, up to 1960, it is repeatedly extended and continued indefinitely. Vote bank politics is believed to be the main factor responsible for this situation – both for extension of the date and also for expanding the group of 'backward classes' (see Gupta, 2006). There are also equally strong arguments in favour of such caste base reservations and their continuation (Deshpande, 2006; Ghosh, 2006). Some (Mehta, 2004) argue that there is no educational, economic or social rationale for the policy. Others (e.g. Bertrand et al., 2010) argue strongly for replacing caste with income/economic level as the basis for reservation. Income is also viewed as a progressive measure compared to caste which is considered a social stigma. Exclusion of the 'creamy layer' (persons in the upper levels of backward sections of society) from the general reservation policy has not been very effective. Further, according to the opponents of reservation, (e.g. Indiresan, 2009; Mahajan, 2009) as there is no educational reason for it, reservation results in dilution, if not serious erosion of the quality and standard of higher education and its overall competitive strength. Certainly, the reservation policy sows seeds of discontent among middle and upper castes and causes growth in class tensions. Given that demand exceeds supply for higher education in good quality institutions, and taking into account rising costs and the reservation policy, those who can afford it often travel to other countries for their higher education, though such numbers are small relative to the huge number of enrolments in higher education in the country. The literature is full of arguments on both sides. It only suggests the need for a fresh look at the problem.

Conclusions

In the absence of reliable detailed data, a quick attempt has been made to estimate transition rates from secondary to higher education in India. The analysis shows that the estimated rates of transition to higher education from higher secondary level are reasonably high, above 75 per cent in recent years. But the gross enrolment ratio in higher education is rather low, below 20 per cent, which is considerably less than the ratio in advanced countries and rapidly growing developing countries like the BRICS countries and others in East Asia. The Government of India has an objective of raising the enrolment ratio in higher education to about 30 per cent by 2020, which will also be much below the ratio in advanced countries. The ratios at secondary and higher secondary levels of education in India are respectively about 60 and 40 per cent – far from universal education. These estimates suggest that to improve transition rates to higher education, there is a need to increase the enrolment ratios in secondary and higher secondary levels by improving transition rates from elementary to secondary education, by reducing dropout rates in secondary education and by improving pass percentage rates in secondary board examinations. With nearly 50 per cent of the population being below 25 years of age and 65 per cent below 35 years of age, there is a huge need to expand secondary and higher education. If not, the so called demographic dividend could turn out to be a demographic problem, resulting in large numbers of less educated, unskilled and unemployable young people.

Another important issue that has implications for transition to higher education from secondary education refers to the availability of higher education facilities and the corresponding admission policies and procedures for higher education. In terms of the number of institutions and even in terms of the number of students, the higher education system in India is one of the largest in the world but demand for high quality higher education exceeds supply. As a consequence, the higher education system in general and higher education institutions in particular, adopt somewhat strict if not very tough admission procedures. While admission to first degree level general higher education is largely determined by the cognitive ability of the student measured in terms of performance in the qualifying higher secondary board examinations, admission to professional/technical education is largely decided by entrance examinations conducted at the all India level, or state level, or at the level of the institutions. The rationale for national level common entrance examinations lies in the fact that graduates of higher secondary education leave school after taking higher secondary board examinations which are conducted by as many as 34 (two central and 32 state level) boards of education, with wide variations between them and no equalizing formulae of any kind to assess the performance of students at a common level. The national common entrance examinations are mostly used by central institutions of higher education like the IITs, IIMs and central universities in making admissions. But since education, including higher education, is a 'concurrent' subject in the Constitution of India, almost all state governments also conduct state level entrance examinations for admission to professional courses of study, which are mostly used by state level institutions for determining which students to admit. On the other hand, some institutions of higher education do not use either of these examinations and rely either on their own entrance examinations, and/or on the scores secured in the higher secondary board examinations only. Given all of this, one finds wide differences in standards and the quality of students admitted to different institutions of higher education – differences between students admitted to central versus state level institutions and between those admitted in different states.

The multiple entrance examinations create huge stress on students in secondary education. Private institutions have been established in large numbers all over India to coach secondary level students to face entrance examinations for admission to higher education. Facing stiff competition for admission to high quality public institutions, students resort to coaching not just after graduating from secondary education, but almost from the start of their secondary education. Excessive reliance

on performance in entrance examinations makes students in secondary education and even the schools pay less attention to secondary education. Further, it is also felt that students spend so much time and effort in preparing for entrance examinations that by the time they get admitted to higher education, they, including meritorious students, are so stressed and exhausted they may not necessarily perform as well in higher education as much as they do in the entrance examinations (Vishnoi, 2012). In addition to the stress these entrance examinations and coaching institutions create, they also add to the financial burden on the families as the phenomenon of coaching institutions has become big business. This, in addition, widens inequalities in access to coaching institutions and to higher education between those who can afford them and those who cannot. In recent years, the Government of India has initiated discussions on the need for a single common entrance test for admission to higher professional education, in place of multiple tests. The need for uniformity, transparency and predictive validity of the criteria adopted is being increasingly felt.

Admission to higher education is also further complicated by the protective discrimination policies that include quotas or reservation for specified groups of backward social groups of the population identified primarily by caste. These policies in higher education have their own varied effects both on secondary and higher education. There have been strong arguments both favouring and criticizing these policies. While they have been perceived to have significant positive effects on the mobility of weaker sections (Weisskopf, 2004) it is widely felt that vote bank politics and not any educational, social and economic rationale explain the continuation and even expansion of these policies. They are largely criticized for causing a fall in the quality and standard of higher education in India and for de-motivating students belonging to backward sections of society about the value of secondary education, as reservations assure less meritorious students among the backward sections admission in higher education institutions.

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The Transition from Secondary Education to Higher Education in Japan

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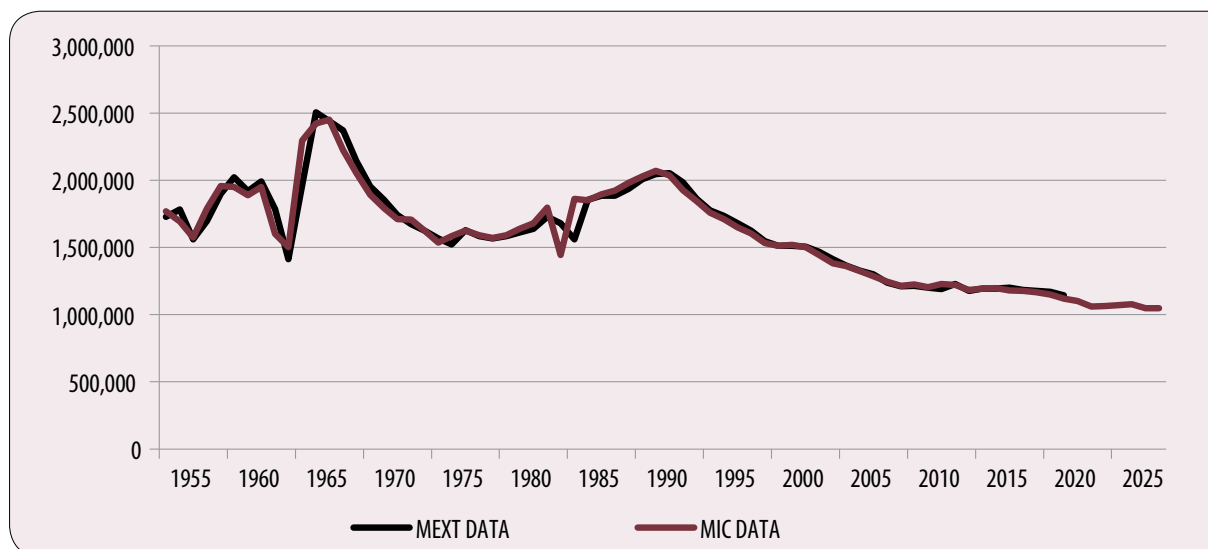
Introduction

Japan is one of the East Asian countries with a tradition of placing importance on academic credentials, referred to as ‘Confucian States’ by Marginson (2011). As one of the first countries in East Asia to introduce a modern education system, Japan achieved universal attendance to basic education by the beginning of the 20th Century (JICA, 2004). In 1907, compulsory education was extended from four years to six and to nine years after World War II (WWII). By the mid-1970s, more than 90 per cent of children achieved twelve years of education. In Japan, secondary education graduates in both academic and vocational tracks are automatically eligible to apply for tertiary education. There is no national exam at the end of secondary education, unlike the *Baccalaureate* in France or the *Abitur* in Germany.

However, since the beginning of modern education in Japan, the government has tried to limit enrolment in public higher education in order to maintain the quality of education and training that it can provide with limited public resources. In the 1960s, the Japanese government allowed private universities to increase enrolment capacity to meet rapidly rising demand from the baby boomers born just after World War II and demand from industry, which required highly skilled workers to sustain robust economic development (Yonezawa, 2013). This rapid expansion of enrolment and the transformation to a mass higher education system led to various policy challenges, such as those regarding quality of education, equity, student financial support and the changing characteristics of students.

After experiencing the widespread student movements of the 1960s, the Japanese government began financial support to private universities, colleges, and schools, beginning in the early 1970s. At the same time, universal enrolment up to graduation from secondary school was achieved by the mid-1970s. At that time, the government instituted a higher education plan that clarified national enrolment targets in universities and colleges, including private ones. Under this plan, the further expansion of enrolment, especially in colleges and universities located in the large cities, became highly controlled. In 1976, special training colleges, new post-secondary education institutions that provided two-year vocational education, were instituted to absorb secondary school graduates whose learning needs were not met by existing universities and colleges (Yonezawa, 2013).

Figure 1: Trends and estimates of 18 year old population in Japan



Source: *School Basic Survey (MEXT), Population Estimates (Ministry of Internal Affairs and Communication: MIC)*.

In the mid-1980s, the second baby boom generation, children of the first, began to enrol in higher education. The government responded with a new higher education plan to accommodate increased enrolment in both the public and private sectors. After the second baby boom, the population of 18-year-olds began to decrease. Because of low birth rates a third baby boom is not expected, as shown in Figure 1.

Given this, the government delegated decisions on enrolment capacity to the universities and colleges, or, in other words, to the market (Amano, 1997). At the same time, Japan's industry became increasingly knowledge based and dependent on advanced science and technology. The ageing phenomenon had already begun and increased reliance on the domestic consumer market led to the transformation to a service economy (the Global Human Resource Development Committee of the Industry-Academia Partnership for Human Resource Development, 2010).

Japanese society faced the need to respond to the internationalization of higher education. In 1983, the government instituted a plan to accept 100,000 international students, around ten times the level of 1983 which was 10,428 international students. The goal was achieved in 2003. U.S. state universities were invited to set up branch campuses, although most of them did not succeed in gaining a stable market share. A special admissions system was instituted for returnees, Japanese students who had studied outside of the Japanese system (Goodman, 1990).

Under the market-led enrolment policy, the number of four-year universities began to increase. This was partly because of the shifting preference of female students away from two-year, predominantly female junior colleges, toward four-year universities after enactment of the Equal Employment Opportunity Law in 1986. The increase in the absolute number of students at four-year universities concurrent with a decrease in secondary education graduates led to a significant increase in the gross enrolment rate in tertiary education, which in 2010 reached 56.8 per cent. This does not include enrolment in special training colleges, which are categorized officially as post-secondary, non-university institutions.

This drastic increase in enrolment in higher education in Japan has created various policy challenges regarding transition from secondary to tertiary education. Arai and Hashimoto (2005) described this as a paradigm shift from the selection of students by universities to the mutual selection between students and universities. The ageing phenomenon and the relatively slow process of

internationalization of Japanese society also increased the necessity to enhance the capacity of every youth to act as a globally competitive human resource.

In this report, the authors provide an overview of current university admission and its historical development in Japan. They also analyse challenges and policy responses regarding the transition from secondary education to tertiary education. Finally, the authors discuss and provide a future vision for enhancing the quality of individual learning experiences as a core factor in realizing a sustainable society under ageing.

Historical Development of University Admissions

Basic Policy of Current University Admission System

Japan's higher education policies since WWII have stressed the importance of university autonomy and academic freedom as core values sustaining a civilized, democratic society. From this point of view, the university admissions system was designed to respect autonomous decisions by universities and colleges. However, to assure egalitarian, merit-based access to higher education, the following principles, based on the legal requirements, are adhered to in college and university admissions.

First, applicants for higher education must have graduated from secondary education or must possess an equivalent academic ability (School Education Law, Article 90). Second, the university president must authorize admission after approval of the professoriate (Enforcement Regulations for School Education Law 144). Third, universities are requested to provide an official announcement of their admission policies (Enforcement Regulations for the School Education Law 172–2). Lastly, admission must be granted through fair, viable screening methods using proper systems and procedures (Standards for Establishment of Universities 2–2).

To clarify principles for university admissions, each year the Ministry of Education, Sports, Culture, Science and Technology (MEXT) publishes *Guideline for the Implementation of University Admission (GIUA)*. Box 1 shows the items included in the guideline.

Box 1: Items explained in the *Guideline for the Implementation of University Admission 2014*

1. Basic policy
2. Admission policy
3. Screening methods
4. Schedule of entrance examinations and screenings
5. Academic records of secondary schools
6. Examination of academic ability
7. Decision and announcement of the subjects of entrance examinations and the screening methods
8. Number of students to be recruited
9. Eligibility for applying
10. Guidelines for applying
11. Admission to national universities
12. Admission to local, public universities
13. Other

Source: MEXT (2013).

This guideline for university admissions in 2014 provides its basic policy as follows.

To carry out the screening of the applicants, consideration should be given by a university (or junior college) so that the multi-faceted abilities and aptitudes of the applicants appropriate to receive a university education are determined, as well as carried out in a manner that is fair and reasonable, and that the education of senior high school (including a senior education programme of secondary school and special support school) is not disrupted.

In addition to the principal policy shown above, the basic policy also requests the respect of the educational contexts of both secondary and higher education. As to secondary education, a university is required to recognize in a proper manner the important factors of academic ability fostered at a senior high school (i.e. basic and fundamental knowledge and skills; ability of thinking, judgment and expression; willingness to learn, etc.). At the same time, a university has to clarify its admission policy in accordance with educational philosophy and content, strive to diversify its entrance examination methods and assessment scales, and consider the relevant linkage with the content and methods of education after admitted to a university. For example, the admission policy of the School of International Liberal Studies, Waseda University that provides liberal arts undergraduate education mainly in English is shown as Box 2.

Box 2: Admission Policy of School of International Liberal Studies (SILS), Waseda University (2013)

Under Waseda University's educational philosophy of Academic Independence and an Enterprising Spirit, SILS welcomes domestic and international students with strong basic academic skills and intellectual curiosity.

1. the school is committed to recruiting students who are strongly motivated to study in English.
2. with the linguistic ability or potential to communicate effectively in at least English/Japanese.
3. with the all-round academic ability or potential to approach problems from more than one disciplinary perspective.
4. with the critical ability or potential to analyse issues from an independent perspective.
5. with the rhetorical ability or potential to express themselves with clarity and precision when presenting or discussing ideas and information.
6. who bring a wide range of cultural and educational experience both at the local and the global level to the SILS community.
7. who have the adaptability and flexibility to respond to the social and psychological challenges of living and studying in an unfamiliar environment.
8. who have the readiness and willingness to consider intellectual and moral questions from an international and comparative perspective.

Each single admission route into SILS is intended to embody several of these principles, while the overall admissions system endeavours to reflect them all.

Historical Development of the University Admission System

The university admission system in Japan developed through evolution of the following three factors. First, the transformation from a European, dual system to a simplified, educational-ladder system modelled on the U.S. higher education system occurred during drastic education reform after WWII. Second, transformation of the role of university admissions from selection of talented

students by the university to mutual selection by students and universities was complete by the end of the 20th century, when demand for and supply of higher education achieved balance. Lastly, perspectives on students' learning have transformed gradually, reflecting the development of research on learning and changing social and industrial contexts.

As typically seen in most countries that experienced the implantation of a Western education system without sufficient development of the indigenous education system, Japan's modern education system endeavours to provide basic education for all and set up flagship universities and other higher education institutions. Due to underdevelopment of the Western-style secondary education that linked basic education to higher education, the first universities did not have a pool of qualified applicants large enough to warrant screening. Therefore, these first universities had to develop their own preparatory programmes to recruit and train candidates able to pursue university-level education (Amano, 1989).

At the same time, the Japanese government established a high school system in a limited number of elite areas to provide liberal arts education, as seen in the gymnasiums in the German system. The capacity of this entire high school system was far smaller than the enrolment capacity of the 'imperial university' system, which had a distinctive status in the pre-war higher education system. Therefore, graduates of these high schools could be admitted to top-level universities based on the recommendations of their high schools and their school records. Other applicants from various types of secondary schools and preparatory programmes were screened by entrance examinations and subject tests (Amano, 2007).

Because of the advantage they conferred in gaining university entrance, pre-war high schools attracted huge numbers of applicants which they screened through entrance examinations, subject tests, school records, and, finally, interviews. The entrance examinations had been implemented by respective high schools. The introduction of the common test had been tried occasionally. From 1903 to 1908 and 1917 to 1918, the nationwide common screening process was implemented among high schools. From 1919 to 1924 and from 1928 to 1940, the common test was used, while the screening was implemented by prospective high schools. From 1926 to 1927, students were allowed to apply to two universities from the school groups set by the government. From 1941, school records, physical examination and interviews were used, adding to the nationwide common exam developed by the Ministry of Education. In 1945 and 1946, the aptitude test developed by the Ministry of Education was used instead of the achievement based entrance examination, considering the highly difficult learning environment at the end and just after World War II (Kuroha, 2001).

Pre-war high schools were recognized as providing college-level education, and, therefore, they were integrated into the new, post-WWII university system under the supervision of General Headquarters, the Supreme Commander for the Allied Powers (GHQ/SCAP) (JICA, 2004). This means that the origin of university admissions, especially those of the prestigious, national universities, is the admissions process of pre-war high schools, rather than pre-war universities.

After WWII, the new university system began by integrating the dual, or heterogeneous, pre-war higher education system into a U.S.-modelled higher education system. This system consisted of two-year, junior colleges leading to associate's degrees; four-year (six-year in the case of medical and other disciplines) undergraduate programmes leading to bachelor's degrees; and post-graduate education leading to master's and Ph.D. degrees.

In 1947, the National Scholastic Aptitude Test (NSAT) was introduced for university admissions, following the U.S. model. Private universities were allowed to use their own scholastic aptitude tests in case they did not make use of the NSAT. However, this testing system failed to gain the support of universities and it was abolished in 1955. The reason for this was that because of the highly elite

characteristics of university students in Japan before the economic boom, the screening process was perceived as a competition based on academic achievement rather than the testing of scholastic attitudes (Koshigoe, 1993). National universities continued to provide achievement based entrance examinations adding to the NSAT, and the private testing companies provided the mock SAT for students used to the NSAT system.

After the abolishment of the NSAT, universities and colleges provided their own subject tests. National universities commonly had entrance examinations twice yearly. Therefore, an applicant could apply to two national universities, but once for each national university, meaning that it was not rare for applicants who failed to pass the entrance examination to wait a year and try again. Entrance examination dates of private universities varied, even among various schools of the same university.

The GIUA required the content of subject tests to be limited to subjects in the nationally set curriculum guideline for senior high schools. However, a rapid increase in the number of secondary education graduates and the prestige of graduates from elite universities led to overheated competition to prepare for university entrance examinations. To screen a manageable number of students from the massive number of applicants, the contents of entrance examinations tended to include more than the subjects in the curriculum guideline.

In 1963, the Central Council for Education, the advisory committee of the Ministry of Education (Monbusho) issued *The Report on the University Reform*, and recommended the comprehensive reform of the university entrance examination system, criticizing the over reliance of the examination in the screening process for university admission. Based on the recommendation, the government set up an incorporated foundation Research Institute for Ability Development (RIAD), and started three types of national tests, i.e. the achievement test for second and third year senior high school students, the scholastic aptitude test, and the vocational aptitude test. However, the results of these tests were not utilized at a majority of the national, local public, and private universities, partly because of the political resistance among universities to the government's idea for using universities for selection and training of human resources necessary for national development. The tests were abolished in 1969. However, a follow up survey of RIAD revealed that the scholastic aptitude test significantly improved the predictability of the grades at the universities when the scholastic aptitude test is used in combination with the scholastic achievement test, grades at high schools and the results of university entrance examinations. (Kuroha, 2001).

In 1972, the government began to require submission of applicants' school records to universities in the GIUA. In 1979, the Common First Stage Examination (CFSE) was introduced as a joint project among all national universities and the newly established National Center for University Entrance Examination (NCUEE).

The main purpose of the CFSE was to provide a high-quality examination that assessed the basic academic achievements of senior high school students. All national universities participated and used the results as their first stage of screening. Prestigious universities tended to add to the CFSE their own, second-stage examination. The way they used the CFSE was left to each university. For example, the University of Tokyo used the CFSE mainly to limit the number of applicants that took its second-stage examination, and it gave small weight to the CFSE scores in its admissions decisions. On the other hand, a majority of the national universities including Kyoto University, a world-class national comprehensive university, put heavier weight on the CFSE scores in their screening.

The CFSE had two main effects. First, although actual use of the CFSE differed greatly among universities, the media used it to rank national universities by developing an integrated indicator

of selectivity. Second, private universities, except one medical university supported by municipal governments, did not participate in the CFSE. The private universities provided their own entrance exams respectively, and limited the number of subjects in the examination. On the other hand, applicants of national universities had to be tested in seven subjects: Japanese, foreign languages (English and others), mathematics, two natural sciences (physics, chemistry, etc.), and two social sciences (Japanese history, geography, etc.). As a result, many students started to prepare for entrance examinations only in the limited number of subjects required by the private universities, and avoided taking the CFSE.

In 1991, the National Center Test for University Admission (NCTUA) replaced the CFSE. In this new test, each university and school decided on the number of subjects tested, reducing the study burden for most applicants. Private universities were allowed to use the NCTUA for their screening, but their participation is not universal. At the same time, the then Prime Minister Yasuhiro Nakasone, the initiator of this new NCTUA, revealed his opinion that the new test did not have to be recognized as the common test that all university applicants should take (Kuroha, 2001). Arai and Kuramoto (2008) also identified that the policy orientation towards the common test seen in CFSE changed into the traditional admission method implemented by the individual universities through the introduction of NCTUA.

Faced with a changing social environment brought about by development of IT and other aspects of the knowledge economy and with a decreasing young population and an increasing aged one, universities began to seek alternative assessment methods to replace paper-based, standardized tests.

In 1992, Keio University, one of the most prestigious private universities, launched a new campus in a Tokyo suburb (Shonan Fujisawa Campus: SFC). SFC introduced a new screening system called Admission Office Entrance Examination (AOEE). The AOEE was based on university admissions in the United States. In most U.S. universities, admissions offices accept application documents, including essays, school records, recommendation letters and the scores of standardized tests like the Scholastic Assessment Test (SAT); but admissions decisions are made by an academic committee with strong support from professional admissions officers.

To diversify the characteristics of its student body, SFC began using the AOEE for a limited quota of student enrolments as an alternative approach to traditional entrance examinations. Applicants were requested to go through an intensive screening process that included writing an essay, giving an interview, and submitting school records and other documents (Kato, 1992). The CCE also recommended setting up admission offices for assessing more diversified talents in its *Report on Japan's Education towards 21st Century* (CCE, 1997). Based on this recommendation, some national universities also set up admission offices and started AOEE from 2001 (Daizen, 2007).

At the same time, it is not uncommon, especially among private universities, to set a separate quota for university admissions outside of the regular, test-based examinations. In Japan, many private universities have affiliated schools at the secondary, basic, and pre-basic education levels, in many cases operated by the same non-profit school corporation. It is widely accepted for a private university to set up a separate quota for admitting students from affiliated senior high schools, based on the schools' recommendations. Keio University admits students from its affiliated senior high schools. Keio University also has affiliated junior high schools and primary schools. Therefore, some students who are admitted at a Keio-affiliated primary school may proceed to an affiliated junior high school, then to a senior high school, and finally to Keio University without serious screening by subject-based entrance examinations. Adding to admissions from the affiliated schools, many private universities set up quotas to admit applicants recommended by various types of senior high schools.

It was in 1967 that the *Guideline for the Implementation of University Admission* officially permitted university admissions on recommendation. At that time, the first baby boomers born just after World War II were about to apply for university. The social concern for excessively heated competition for university examination was widespread. At the same time, the government revealed the previously mentioned follow up survey result of RIAD, demonstrating the correlation between high school grades and university grades. After the official blessing of admission on recommendation, the number of (especially private) universities and the share of students who make use of university admission on recommendation has increased constantly (Nakamura, 2011). After the 1980s, the expansion of these screening methods also became consistent with the policy direction to admit various types of talent and to avoid the extremely hierarchical homogenization of student bodies that have only those with similar academic scores.

Diversified Screening Methods

Table 1: Officially determined screening methods by the Guideline for the Implementation of University Admission

| | |
|--|---|
| Regular entrance examination | Decision based on the rational and comprehensive examination of performance of abilities and aptitudes shown in school records, academic achievement test, short essay, interviews, etc. |
| Admission Office Entrance Examination (AOEE) | Decision based on comprehensive consideration of the ability, aptitude, motivation for learning and goal achievement through a detailed documentation survey and long interviews, etc. |
| University admission on recommendation | Decision based on the recommendation of the principals of senior high schools with the school records. In principle, scholastic tests are exempted. |
| Entrance examination for the graduates from vocational programmes and comprehensive programmes | Decision based on the performance of the achievement test of vocational subjects. Available for graduates from vocational programmes and comprehensive programmes. |
| Entrance examination for returnees, Entrance examination for adult learners | Decision based on the screening methods different from the regular entrance examination. Available for the applicant who returns from abroad (including the repatriates from China) and adult applicants. |

Source: Sasaki, 2012, p.5., developed from the *Guideline for the Implementation of University Admission (MEXT)*.

Table 2 shows the student number and share of the students who were admitted through regular entrance examinations, on recommendations, the AOEE, and other criteria in 2011. This reveals that the national universities, most of them are selective, prefer to retain the traditional entrance examination system; while a majority of private university students are admitted on recommendation or the AOEE.

Table 2: Share of admitted students among different types of entrance examination (%)

| | Regular entrance examination | Admission Office Entrance Examination (AOEE) | University admission on recommendation | Others | Student number |
|---------------------------|------------------------------|--|--|--------|----------------|
| National universities | 84.2 | 2.7 | 12.5 | 0.7 | 100,562 |
| Local public universities | 73.7 | 1.8 | 23.7 | 0.8 | 29,361 |
| Private universities | 48.4 | 10.4 | 40.7 | 0.5 | 469,484 |

Source: MEXT.

At the same time, experts have cautioned that the easy-going attitudes of some universities prioritize student quantity over quality (Nakamura, 2011; Sasaki 2012). The government itself once cautioned against the wide use of university admission on recommendation. The University Council, the advisory committee of higher education policy, published *Summary of Discussion on the Reform of University Entrance Examination* in 1993, and recommended that enrolment through recommendation be set within 30 per cent at universities and 50 per cent at junior colleges. However, faced with over supply conditions in the higher education market, the government increased the allowance to 50 per cent at universities, and abolished the allowance limit at junior colleges in 1998 (Arai and Kuramoto, 2008).

At about this time, a lack of readiness for university-level education was first noticed, even among the newly entrants of top universities. For example, Akito Arima, then president of the University of Tokyo, emphasized the need for remedial education at his university, because it is technically possible to be admitted to, for example, the School of Science of the University of Tokyo without taking physics in high school (Arima, 1996). Here, the role of general education that was introduced following U.S. undergraduate education after WWII transformed into more pragmatic preparation for university level education (Sasaki, 2012).

Overall, diversification of screening methods caused a fundamental reconsideration of the role of university admissions. In particular, university admissions could no longer be understood as a device to assure academic achievement up to the secondary education by providing a nationally accepted set of knowledge and skills. Instead, a university had to take active responsibility for supporting the tertiary education learning of those admitted students.

As previously mentioned, Arai and Hashimoto (2005) called this change in perspective a paradigm shift from the selection of students by the universities to a mutual selection between students and universities. This shift was accepted officially in 1999 when the report of the Central Council for Education (CCE) of MEXT emphasized the importance of active engagement of stakeholders to the smooth transition from secondary education to higher education (CCE, 1999).

From 2006, the government started to require the universities to clarify their admission policies through the amended *Guideline for the Implementation of University Admission*. The government also began to provide Web-based university information as an activity of the NCUEE.

Challenges and Policy Responses

Requirement for Human Resource Development in an Ageing Society

Currently, Japan's education system is facing the following challenges.

First, the realization of universal access to higher education is at hand. In 2012, new enrolment at universities reached 53.5 per cent of senior high school graduates, and 77.0 per cent if new enrolment at special training colleges and miscellaneous schools are included (Education Rebuilding Implementation Council, 2013). It is no longer valid to expect screening to be the main function of university admissions. Universities are expected to clarify their admission policies to applicants and to be actively engaged in the admissions process as a mutual choice. The government and universities are requested to provide precise and rich information on various aspects of university life.

Second, under this condition, significant numbers of students lack academic readiness at the entry level, and their engagement with learning tends to be insufficient. Universities must support students so that they can acquire the attitudes and abilities necessary for a university education. Remedial education must be provided to fill gaps between what students acquired before admission and what they need to know and master to take university-level courses. At the same time, the university must

support students in recognizing differences in learning at the secondary education level and at the higher education level. Many universities provide first-year educational experiences that include seminar-style group work, active learning and communication, and project-based learning.

Third, universities are requested to ensure that learning outcomes fit the social expectation of bachelor's degree earners more than before. Through national guidelines and the amendment of accreditation standards, universities are beginning to clarify the knowledge, skills and competencies that students should acquire through their education programmes and to show concrete evidence of the learning outcomes of students. This also meets industry requests that universities take a more active role in fostering skills necessary for students' working life after graduation.

Fourth, universities must foster human resources who can actively engage in the globalized, knowledge economy. In 2010, the Ministry of Economy, Trade, and Industry (METI) published a report in collaboration with MEXT pointing out the need to foster 'global human resources,' and this later became a core task of the entire cabinet (Global Human Resource Development Committee of the Industry-Academia Partnership for Human Resource Development, 2010). Global human resources are defined as people who hold (1) fundamental competencies for working persons, (2) communication ability in a foreign language (especially English), (3) ability to understand and take advantage of different cultures and identity as Japanese (Council on Promotion of Human Resource for Globalization Development, 2012). To these ends, internationalization of university education is becoming an urgent challenge. However, Japan's strong national identity, based on use of the national language in secondary education, could be considered a serious obstacle. To provide wider opportunities for international learning to secondary education students, the government plans to provide the International Baccalaureate programmes in 200 schools by 2018.

Lastly, financial support is needed to ensure equity in higher education. According to the *Student Life Survey* by the Japan Student Services Organization (JASSO), the share of undergraduates who use student loan programmes provided by JASSO and other scholarship and loan programmes reached 50.7 per cent in 2010.

Policy Responses

Policy responses to the above-mentioned challenges are being developed in line with the more systematic approach to supporting increased capacity for learning in individuals.

At the secondary education level, curriculum guidelines have been revised to enhance 'zest for living', the ability to study and think independently (JICA, 2004). The guidelines now emphasize acquiring knowledge and skills, developing thinking ability, decision-making ability, expression, critical thinking, problem solving, and writing skills and internships and volunteering. Discussion of redefining core competencies is ongoing at the CCE.

At the university level, clarifying achievement goals for undergraduate education has been one of the important policy agendas at the national level, and that process is ongoing at the university level as well. The government has also implemented support for enhancing the capacity of universities to manage their education and learning activities by their students. Other core agenda items for policy-making are quality assurance in response to rapid change of circumstances around universities such as globalization, and online databases for universities' information to help prospective students search for a college or university that is a good fit for them.

As to the transition from secondary to higher education, the paradigm shift is ongoing from knowledge-intensive screening to enhancement of learning abilities of individual students. For that purpose, the possible introduction of common achievement tests is currently being discussed. The

two types of tests are: (1) Ordinary-Level Test (OLT) that examines the basic knowledge and ability to be achieved at the senior secondary education, and (2) Advanced-Level Test (ALT) that examines the readiness for university education and which replaces NCTUA. The OLT is aimed to assure and improve quality of senior secondary education. It is also expected to be referred to the current admission through recommendation and admission offices. On the other hand, the ALT is to be used for examining the academic ability necessary for a university education. Here, the results are grouped in a band in order to avoid drawing attention to detailed raw scores that do not have a statistically significant meaning. In addition to ALT, the universities are recommended to examine applicants' ability, aptitudes and engagement for university education as part of a comprehensive screening system fitted to their own admission policies. In this screening process, the active use of qualifications out of school, such as TOEFL and other language test results and vocational qualifications is currently examined (Education Rebuilding Implementation Council 2013). It is also proposed that students can take these national tests more than once a year in order to avoid the stress among applicants that their future is influenced by the result of a one chance testing.

In addition, internationalization of education as a response to globalization is also a core policy agenda item. At the secondary education level, the government encourages increasing learning opportunities, in the International Baccalaureate for example at the secondary education level, and increasing university education programmes in English. In 2008, the government set a goal of securing 300,000 international students by 2020. Another policy goal is to increase the number of Japanese students studying abroad from 60,000 to 120,000. Facilitating student exchanges through credit transfers and double/joint degree programmes has also been discussed and is being practiced at both the national and institutional levels.

Finally, the government published a *Second Basic Plan for Promoting Education* in 2013, and set the construction of 'Safety Net for Learning' as a priority item. The plan aims to ensure access to education for those who wish to learn by eliminating the boundary of finance, timing and location. For that purpose, further improvement of financial support for the students will be sought.

Conclusions and Future Vision

As a mature, ageing society, Japan faces the urgent need to enhance the learning ability of its youth. The current Prime Minister, Shinzo Abe, argues that 'the power of the universities is the power of the nation', and started a cabinet level advisory council, the Education Rebuilding Implementation Council (ERIC), and made proposals on the transition from secondary education to higher education. To that end, a systemic transition from secondary to higher education is necessary to assure wider, consistent support for individual learning. Key factors in achieving this are achievement-oriented learning assessment and enhanced learning engagement. In addition, internationalization of education and enhanced student mobility are urgent agenda items.

Consistent support for individuals' learning by the stakeholders (universities, governments, industry, etc.) is requested to assure an effective articulation from secondary education to higher education, and then to the labour market. In both secondary education and higher education, achievement or outcome based learning assessment should be effectively implemented. At the same time, the stakeholders should work together for the enhancement of student learning engagement both in secondary education and higher education. Internationalization of education and enhancement of student mobility should also be pursued through international cooperation and exchange among experts and practitioners.

In the realization of these reform plans, some experts show their concern about the consistent attitude to screening using the traditional entrance examination system among top universities

(Honda, 2013). Amano (2013) also points out that most of the current proposals are not necessarily new, reflecting the history of university entrance examinations as seen in this report. Arai (2013) argues that the diversification of university entrance examinations so far has increased the fuzziness in the assessment; and the new test proposal may face the dilemma of two different aims, namely, screening and education.

However, it is also true that the development of the global knowledge economy and the changing Asia-Pacific and global landscape, plus the transition from secondary to higher education are strong determinants of the direction of education reform in Japan. Further discussion in a comparative perspective should be highly beneficial.

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The Connection Between High Schools and Colleges in the Republic of Korea

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Introduction

Diversifying the high school system and changing college admission are two of the many educational reforms that the Lee Myung Bak administration (the former President of Korea) brought about. One of the significant educational policy directions of the previous administration was ‘to increase diversity’. The Lee administration viewed that the 21st century needed talented citizens with creative minds and skills. The government perceived that the old college admission system was ineffective for selecting students with diverse talent and potential. The Lee administration introduced a new college admission system that employs diverse admission methods and approaches to prevent homogeneous and uniformed student selection. Providing more institutional autonomy for universities was the main premise of the new policy. By increasing higher education institutional autonomy for admitting their students, the Lee administration attempted to bring students with varied potential and qualities to college campuses. Diversifying the high school system policy was adopted as a way of identifying students’ potential and educating them accordingly. The new college admission system promoted the ways in which the high school performance of students is included in student evaluation alongside non-academic aspects of their school lives, not only by their academic achievement. As such, collaboration between high schools and universities has been promoted to draw successful outcomes of this newly adapted college admission system.

This paper explores the admission system reform that the previous government (Lee administration) conducted; and it also illustrates stakeholder groups’ responses to the new college admission system. In order to show stakeholders’ responses towards the college admission policy and its system, this paper uses survey and interview data from research conducted by the Korean Educational Development Institute (KEDI). Six hundred and twenty two high school teachers from about 600 high schools who have extensive experience in college admission work participated in the survey research. Ten teachers and seven former and current directors of the office of college admission in different universities participated in interviews.

Historical Overview of the College Admission System

The college admission system has undergone 15 major reforms and 40 small reforms since 1948 to meet various social and institutional demands. These reforms are driven by the high level of society’s expectation of the college admission system including demands on normalization of high school education, selection of qualified students, reduction of private education expenses, and so on.

Table 1: Demands on the college admission system

| Categories | Expectations |
|---------------|---|
| Institutional | <ul style="list-style-type: none"> • Connection between high schools and colleges • Selection of qualified students • Social unification |
| Social aspect | <ul style="list-style-type: none"> • Reduction of private education expenses • Improvement of the ultra-competitive education system • Social empowerment through development of autonomous, creative human resources • Productive college preparation, • Career preparation based on aptitude and interests • Easing the ranking system of universities in Korea |
| Stakeholders | <ul style="list-style-type: none"> • High Schools: Guaranteed right for teacher evaluation, curriculum management • Colleges: Guaranteed right of student selection • Students, Parents: Easing stress of college preparation, guaranteed right of choice, simplified procedures and reduced expenses, stable management of the college admission system |

Source: Jeong (2011). *Study of College Admission System for Connection Between High School and College (VIII): Long-Term Plan for College Admission System with Connection Between High School and College*, p. 76.

The college admission system can be divided into four stages of changes of key stakeholders: College-led period (1945–1968), College/Government-led period (1969–1981), Government-led period (1981–2001), and College autonomous period (2002–present) (Kim, Kim, Park and Im, 2010).

During the College-led period, social demands for higher education increased rapidly because of the announcement of the Decree on Standards for the Establishment of Universities and Colleges in 1946 and the Decree on Postponement of College Students 1950. But the government was not very influential due to the open and autonomous higher education policies under the U.S Military Government in Korea. However, social issues related to the college admission system arose, such as selecting unqualified students and draft dodgers for example. While resolving these problems by implementing the national college entrance exams, the disparities among the colleges and universities began to deepen and eventually led to a fixation on the hierarchy of the colleges and universities and a worsening ranking system.

The College/Government-led period is characterized by excessive competition for middle school admission. In 1969, the exam for middle school admission was abolished in order to reduce the prevailing issue of excessive private lessons to gain entry to the top-ranked middle schools. As a consequence of the expansion of middle school education opportunities, an excessive amount of competition for admission to high school became a social issue. In 1974, the policy on the equalization of high schools was introduced in order to expand higher education and to avoid the burden of competition for high school admission. However, this measure caused excessive competition for admission to college and lowered the quality of college education because the number of additional students exceeded capacity. Unqualified students were also selected. The Korean government carried out 7·30¹ educational reforms in 1980. The main agenda included: prohibition of private tutoring, an increase in the admission quota, as well as abolition of ‘main college entrance examination’ which was prepared and administrated by universities. As a result, students were selected based on school grades and scores in the preliminary examination (national

1 The Korean government announced new educational policies and reform plans on July 30th.

examination). During the Government-led period, the official title of the preliminary examination was changed to the Scholastic Achievement Examination for the College Entrance. In 1994, the college admission system went through a structural reform in which the student selection process was based on the scores of the cross-curricula examination, College Scholastic Ability Test (CSAT), which tests students' comprehensive understanding of the integrated curriculum. In addition to the implementation of CSAT, students' school records on curriculum activities as well as extra-curricular activities were recognized as part of the admission process in order to revive high school education efforts.

The Government-led period was followed by the College autonomous period. This period put more emphasis on college specialization and guaranteed the rights of students to select their college. When the Lee Myung-bak government took office in 2008, the College Admission Officer system was introduced to reduce the burden of college entrance exams. The College Admission Officer system is one where experts decide students' admission outcomes based on various reports describing their potential and talent.

The Lee administration's primary reasons for adopting the College Admission System were to normalize school education at the primary, middle and high school levels, and also to reduce private education expenses (Kim, Jeong and Lee, 2009). These reasons show that even though there have been frequent reforms and changes to the college admission system, the primary purpose of systemic improvement has not been achieved. Despite a number of such attempts, the college admission system is considered to be a major constraint that hinders normalization of education. The college admission system had been constantly criticized as impeding social integration since it encourages excessive amounts being spent on private education. It also promotes increased disparity among different social classes and intensifies the confusion of teachers and parents who look for educational guidance and information for college admission. Moreover, as briefly mentioned above, the conventional methods of student selection by academic performance and test scores which play a major role in college admission, was viewed as inadequate to identify talented students with potential and skills.

Characteristics of the Current College Admission System

Increasing Institutional Autonomy on College Admissions

The Lee administration wanted diverse approaches to student selection in the new admission system. Providing institutional autonomy in developing student admission methods was a way of achieving that goal. The main policy is empowering admission autonomy so that college committees can provide admission management services and colleges can choose the admission criteria. CSAT scores and percentile ranks are provided according to the policy. It is designed to empower colleges with admission autonomy.

Table 2: Three steps of ensuring institutional autonomy

| | Application methods |
|---|---|
| Step.1 : To decide weight of school records and the CSAT score in student evaluation | <ul style="list-style-type: none"> • To decide portion of School records and the CSAT in student evaluation according to the characteristics of courses in colleges • Government supports the admission officer system • To support the University-level programme (UP) of the Korean Council for University Education |
| Step.2: To reduce subjects of the CSAT | <ul style="list-style-type: none"> • To select subjects of the CSAT according to the level of academic achievement and aptitude of students and college's admission plan (general course, research course) • If applicants' achievements in other subjects are required, colleges could utilize high school records of the subject. |
| Step.3 : To take full autonomy in the college admission system | <ul style="list-style-type: none"> • To take full autonomy in college admissions systems when the colleges build their own systems considering students' potential and creative ability |

Source: Jeong (2011). *Study of college admission system for connection between high school and college (VIII): Long-term Plan for college admission system with connection between high school and college.* p.76.

Adopting the Admission Officer System

On August 26th, 2004, the Ministry of Education and Human Resources Development announced the Measurement on Post-2008 College Admission System Improvements for Normalization of School Education. It was in August 2007 that the government introduced the admission officer system. The system is to enable selection of creative and talented students who meet the demands of the 21st century through various supporting materials that include their character, experience, potential, accomplishment in specific fields and reasoning skills. The number of colleges that have implemented and admitted students through this system has greatly increased.

Table 3: Students admitted through the admission officer system

| Categories | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|----------------|-----------------|------------------|-------------------|-------------------|-------------------|
| The number of students to be admitted to four-year-course college (%) | 254 (0.05%) | 4,476 (1.2%) | 24,696 (6.5%) | 35,421 (10.1%) | 42,163 (10.8%) | 47,606 (12.6%) |
| Leading university ratio of recruitment (%) | 0.1% | 17.3% | 21.0% | 24.1% | 24.3% | 27.0% |

Source: Kim and Park (2013). *Plan for Simplification of the College Admission System.* Korean Educational Development Institute.

Changes in 2014 CSAT (introduced in January 2011)

The CSAT will be changed from the 2013 test. The main changes are as follows:

- To change the title of test subjects: From Language and Foreign Language to Korean Language and English
- To separate both tests for Korean Language and English into two types (A/B) as is currently so in mathematics
- To reduce the number of elective subjects in social science/natural science from three to two subjects.

The level of the type B test is similar to the current level of the CSAT; but the level of Type A test will be lower and have a slightly limited test range compared to that of the current CSAT. Therefore, students can choose their type of test in the three test subjects, Korean language, English and

mathematics, depending on their academic level and career path. For type B, students can select a maximum of two subjects and cannot select Korean language type B and mathematics type B at the same time. Students also have to take two other subjects, social studies and science. Students were supposed to take more subjects before 2009, but the government reduced the maximum elective test subjects from three to two to lighten the burden of students.

Table 4: 2014 Reorganization plan of the college admission system (tentative)

| Time | Area | | Number of questions | Examination hour (Min) | Score | Note |
|------|--|------------------------------|---------------------|------------------------|-----------------|---|
| 1 | Korean language | | 45 | 80 | 100 | <ul style="list-style-type: none"> To replace listening test with written test To reduce by 5 questions To choose one of the types (A/B) |
| 2 | Mathematics | | 30 | 100 | 100 | <ul style="list-style-type: none"> Essay question 30% (5 questions) To choose one of the types (A/B) |
| 3 | English | | 45 | 70 | 100 | <ul style="list-style-type: none"> To enlarge listening test : 22 questions (50%) To reduce 5 questions To choose one of the types (A/B) |
| 4 | Social Studies/ Science elective subjects (one) | Social Studies (10 subjects) | 20 per subject | 30 per subject | 50 per subject | To choose 2 subjects (maximum) among 10 subjects |
| | | Science (8 subjects) | 20 per subject | 30 per subject | 50 per subject | To choose 2 subjects (among 8 subjects) |
| | | Vocational (5 subjects) | 40 per subject | 60 per subject | 100 per subject | To choose 1 subject among 5 subjects |
| 5 | Second foreign languages /Chinese character ² | | 30 per subject | 40 per subject | 50 per subject | <ul style="list-style-type: none"> To choose 1 subject among 8 subjects of second foreign language and Chinese character Vietnamese language is added |

Source: Ministry of Education, Science and Technology. (2011). 2014 report material – reorganization plan of the college admission system.

² Chinese characters are ideogram, their semantic feature is utilized in Korean language, but these Chinese letters are pronounced in Korean way.

Diversification of College Admission Tracks

Another characteristic is expanding early admissions. As of 2013, the number of students to be admitted through early admission accounted for 64.4 per cent. This was because various college admission tracks for national basic livelihood, students in rural areas, students from specialized high schools, etc. have been channelled into early admissions. This suits the colleges' preference and need to select talented students in advance and to increase the number of applicants.

Table 5: No. of students admitted by early admission

| Year | Number of colleges | Number of students admitted early | The total number of students to be admitted | Number of students to be admitted through early admission (%) |
|------|--------------------|-----------------------------------|---|---|
| 2008 | 185 | 189,300 | 378,268 | 50.0 |
| 2009 | 190 | 206,223 | 378,625 | 54.5 |
| 2010 | 194 | 227,092 | 384,659 | 59.0 |
| 2011 | 196 | 235,250 | 382,192 | 61.6 |
| 2012 | 196 | 237,681 | 382,773 | 62.1 |
| 2013 | 195 | 243,223 | 377,676 | 64.4 |

Source: Kim and Park (2013). Plan for Simplification of the college admission system. Korean Educational Development Institute.

A variety of admission resources such as school grades, extracurricular activities, scores on college exams (essay, aptitude test, interview, for example) are used as evaluation criteria for early admission. The latest expansion of early admission is focused on talented students through various supporting materials describing their potential and abilities. Even though major colleges in the capital area have been enlarging the number of students to be admitted through early admission, students who choose the general track (school records, essay, etc.) are still tied to the CSAT score since the colleges use it as the minimum requirement for college acceptance.

Perceptions Toward the Recent College Admission System

Perceptions and responses of high school teachers who have been closely involved in college admission work under the new college admission policies and measures are described in this section. Teachers' responses on detailed policy approaches such as increase in institutional autonomy, adopting the college admission officer system, modification of the 2014 CSAT, and diversification of college admission tracks, are discussed.

Increase in Institutional Autonomy

Interviewees who served or currently hold directorial positions in admission offices in major universities perceive that the institutional autonomy of the college admission system has been increased but with limitations. One participant mentioned that the increase in institutional autonomy is highly rhetorical.

The government maintained its influence on college admission systems through various measures such as funding and regulations, and most of all, KCUE (Korean Council of University Education) listens when the MEST speaks. (An interview with a former director in September, 2013 from Kim, Eun, Young et al. 2013)

A former director of a major university in Seoul thought that institutional autonomy has increased at a certain level, but he thought that the government still used its power in areas such as the number of students and admission resources. High school teachers seem to share this notion of incomplete

institutional autonomy of universities regarding the issue of student admission. However, criticisms are raised about institutional autonomy. For example, it is said that the power of developing the admission policy and methods was only given to a handful of major universities while other institutions have to follow what the leading universities had decided. Moreover, some high school teachers think that universities only demand rights for themselves neglecting their responsibility of providing information to high schools and students (Interview with high school teachers in September, 2013 (Kim, Eun, Young et al., 2013).

First, a few interview participants perceive that partial institutional autonomy given to major universities, and independence in developing an admission system, cannot be enjoyed by universities at the middle and lower levels. The reason behind this is that under the Korean Council of University Education, significant features of college admission are discussed annually among its members but the voices of major universities tend to be more influential than those of smaller institutions and those located in the regions (interview with a director in university B, in September, 2013 from Kim, Eun, Young et al., 2013).

Moreover, providing autonomy for universities to design their own admission methods and approaches resulted in complicated and diverse admission systems which caused confusion for students and parents as well as teachers. About 90 per cent of the survey participants felt that the admission process needs to be simplified (Kim, Eun Young et al. 2013).

Adopting the Admission Officer System

Adopting the admission officer system was a reflection of changing public notions of a good-quality student. The 21st century looks for talent with an innovative mind, problem-solving skills, leadership qualities, and specialisms (Yang, 2009). As such, diverse high school curricula that develop these qualities and talent were demanded. An admission officer system was adopted to connect the changed curricula to college admission.

The interviewees agree that the admission officer system has brought qualitative benefits to the college admission system.

Under the old system, students were evaluated by their test scores; and even one point, which didn't say much about student quality, could decide a student's college admission results.

Although it is limited, one of the positive features of this new system is that a university can select students with the quality it looks for. Much more diverse evaluation methods and components have been used for student evaluation. (An interview with a former director in September 2013)

However, the response was lukewarm for government funding support for some universities selected as leading institutions of the college admission system. The interviewees who criticize this government funding strategy think that 'not all universities are qualified or ready to admit students through an admission officer system' (a director of C university, September, 2013). Moreover, as the government publicized this new system extensively, universities that do not implement an admission officer system lag behind the leading group. As such, quite a few interviewees perceive that the Korean government's attempt to increase the institutional autonomy of universities was not fulfilled because conditions for funding and publicizing the college admission officer became an external pressure on universities.

Changes in 2014 CSAT

High school teachers mentioned that ‘reducing the number of elective subjects in social science/natural science from three to two has caused harm to public education (Focus Group Interview in September 2013). ‘Students who took these level 1 elective subjects at their first grade won’t take these level 2 courses when they are in the 3rd grade, except those who plan to apply to the Seoul National University. It means that students will study other subjects that are included in the CSAT in the level 2 elective classes’.

The A/B type CSAT Korean language and English, is criticized for its poor predictability. ‘Students keep changing their groups between A and B type based on their previous mock test results; the student ratio between A and B was 32:68 at the last mock test’. A/B CSAT type was introduced because the curriculum was changed. But teachers say that there is not a level of difficulty between Korean Language I and II. The only difference between these two courses is the content. In conclusion, teachers think that differentiating CSAT based on the level of difficulty is an unnecessary improvement.

Diversification of College Admission Tracks

Diversifying college admission tracks can be seen as an outcome of increased institutional autonomy. Universities can develop various admission methods and many of them are for the early admission system. The purpose of expanding the early admission of students is to revive school education. However, universities use this admission method as a way of securing good students. ‘Universities see this system as a very good opportunity for them to secure high performing students as well as students with special talents (a focus group interview with a high school teacher in September 2013).

Some criticize the early admission system for creating too complicated an admission process. However, teacher participants all agree that the problem is not in the expansion of the early admission method; the main problem remains the way parents and students think.

If a student chooses to apply to a university or a programme based on his/her interests and ability, thousands of different admission methods should not be a problem; but many parents and students still choose universities and their majors based on the institutional reputation and name value. So, parents and students and teachers have such a headache to figure out which department and school they could go to out of numerous different admission methods and schools. (An interview with a teacher in September 2013)

The above narrative displays how complicated and complex college admission is for many Korean parents and students. In most universities, student evaluation materials include test scores, high school records, portfolio and essays but the weight attached to this material and test scores of each subject, can create numerous paths to college admission. By diversifying admission methods and tests, the government attempted to ease admission of students with various qualities and even increase accessibility for those who could not think of going to college under the test-focused system. However, as described above, diversifying the admission methods resulted in the public believing that it had become too complicated.

Improvements of the College Admission System and Lingering Issues

On the 27th of August 2013, the Park Geun-hye administration announced a plan for simplification of the college admission system: Plan for simplification and development of the college admission system to lighten the burden of students and parents and to normalize public education. It emphasizes lightening the burden of students and parents, improving the credibility of school records and CSAT scores, and implementing a new system to provide services for application submissions and

admission announcements. Also, a joint network system for collaboration among high schools, parents, colleges and government will be implemented as a supportive system to provide a desirable educational environment.

Table 6: The recent modification of the college admission system conducted by the Park Geun-hye administration

| Categories | The present | 2016 |
|-------------------------------------|--|---|
| School records (High school grades) | <ul style="list-style-type: none"> • Early admission based • 9 ranks (curved) | <ul style="list-style-type: none"> • Regular admissions will be reflected • 9 ranks (curved) |
| CSAT (National Exam) | <ul style="list-style-type: none"> • Graded exams in the subjects Korean, English and mathematics • Selection of two electives in social studies and science subject • 70% reference to EBS | <ul style="list-style-type: none"> • Abolished graded exams in the subject of Korean, English, and mathematics • Selection of two electives in social studies and science subject • 70% reference to EBS |
| Colleges exam | <ul style="list-style-type: none"> • Little relevance with high school curricula • Lack of information about essay • Suffers from stress to prepare interview and aptitude test | <ul style="list-style-type: none"> • To make questions on a level of high school curricula • To open questions and grading criteria to the public • To avoid problem solving based interviews and aptitude tests |
| Fair opportunities | <ul style="list-style-type: none"> • Fair opportunities for the admission are insufficient | <ul style="list-style-type: none"> • To increase students' fair opportunities • To select diverse students |
| Time for student recruitment | <ul style="list-style-type: none"> • Application period for early admission (1, 2) • Divided recruitment for regular admissions (A, B, C) • First week in November | <ul style="list-style-type: none"> • To integrate application period for early admission • To terminate divided recruitment • Second week in November |
| Supporting system | <ul style="list-style-type: none"> • Focused on colleges • Private corporation provides services for application submissions | <ul style="list-style-type: none"> • Focused on new institution with colleges, high schools and parents • To implement a new system for application submissions |

Source: Ministry of Education. (2013). Plan for simplification and development of the college admission system to lighten the burden of students and parents and to normalize public education (tentative).

However, there still remain a significant number of challenges for the new plan to succeed as integrating 3,000 different college admission procedures and refraining from continuation of college exams that are in the form of essay tests, the requirement of an authorized English test score, and using the CSAT score as the minimum requirement even for the early admissions, pose newly pending issues.

The first issue is the universities' guaranteed right for student selection versus the new policy. Societal demands for simplification of the college admission system may conflict with students selecting the 'right' college. Colleges might oppose the announced policies regarding basic information of the college admission system and enforcement plans, because the new policy may not be consistent with interests of universities in student selection.

Related to the first point is the second, college essays. The representative characteristic of the student selection right of colleges is the college essay. Even though colleges have been selecting nearly 60-70 per cent of their students through the admission track with college essays, they have failed to adequately use it as an evaluation criterion for college entrance. Instead of essays, the colleges have been using very difficult aptitude tests or interviews as academic evaluation tools despite criticism that these tools are not relevant to the high school curriculum.

The third issue is about the minimum standards of CSAT. Early admissions were designed to: select students whose potential may not be recognized merely through the CSAT scores; to normalize public education; and to ease the burden on students preparing for the college entrance exams. However, it is feared that the burden still remains because the minimum standard of the CSAT score is required even in early admissions.

The fourth point is the chronic problem of private education for test preparation. The new policy states that essays and a letter of recommendation are only to be used as supplementary materials. However, special talents admission systems still evaluate students based on their practical skills and still count authorized English test scores and awards. As a result, the burden of preparing college entrance exams for prospective students remains a potentially harmful effect of private education.

Finally, the increased influence of test scores is an issue that needs to be addressed. The controversy is that simplification of admission and selection models may induce score-based selection to prevail. Furthermore, it should not be ignored that qualitative evaluation such as the admission officer system can be weakened, and the ranking system among colleges may become a permanent feature in Korea.

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The Transition from Secondary Education to Higher Education: Malaysia

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Higher education in Malaysia has experienced great transformation since its independence in 1957. In the early days after independence, the focus and emphasis on education and human capital development was at the primary and secondary levels. There was only an autonomous division of a university (campus of University of Malaya which was then in Singapore). However, as primary and secondary education became democratised, access to higher education increased and widened significantly. Today, Malaysia has 20 public universities and almost 500 private universities, university colleges and colleges. In 2011, 508,256 and 428,973 were enrolled in public and private higher education institutions (HEIs) respectively (MOHE, 2012). There were also 89,686 Malaysian students pursuing higher education abroad in 2011.

In Malaysia, public universities are categorised as Research Universities (RU), Comprehensive Universities, Focus Universities and the APEX University (Accelerated Programme for Excellence). For these public universities, with the exception of the APEX University, the policies related to admission are managed centrally at the Department of Higher Education, Ministry of Education under the Student Admission Division (known as *Bahagian Pengurusan Kemasukan Pelajar*, BPKP), which is responsible in ensuring that the admission procedures are implemented based on the criteria that has been agreed by the universities. However, the APEX University has opted for autonomy in student selection and has set up its own criteria and selection mechanism. Most public universities with the exception of *Universiti Teknologi MARA* (UiTM) admit undergraduate students once a year during the September semester. As for private HEIs, each institution will have its own criteria, admission procedures and selection mechanisms. Students are expected to apply directly to these private institutions. However, unlike public universities, the intake for private universities is conducted throughout the year with a maximum of four intakes per year. The multiple intakes are aimed at getting the desired number of students for any particular programme.

This paper aims to illustrate the transition from secondary education to higher education in Malaysia, specifically the selection mechanism in public HEIs. To do this, the paper is divided into three sections. The first section explores the national admission policies to higher education, with an exclusive emphasis on public HEIs, as there is no national admission policy for private HEIs. Having discussed the national admission policies and their contexts, the second section illustrates the admission criteria and selection mechanism for higher education. The third section discusses the impact of the selection mechanism from the educational, economic and socio-political perspectives.

National Admission Policies

To better understand the admission policies of Malaysian HEIs, some historical connections need to be highlighted. According to the Malaysia Demographics Profile 2013,⁴ the distribution of the Malaysian population according to ethnic groups is as follows: Malays (50.4 per cent), Chinese (23.7 per cent), Indigenous (11.0 per cent), Indian (7.1 per cent), and others (7.8 per cent).

1 Universiti Putra Malaysia

2 Universiti Malaysia Kelantan

3 Universiti Sains Malaysia

4 http://www.indexmundi.com/malaysia/demographics_profile.html

Upon independence, Malaysia's population included many first and second generation immigrants, mainly ethnic Chinese and Indians, who were brought to work in tin mining industries and rubber plantations. The Chinese were also emerging in the commercial sectors and were beginning to monopolise certain businesses. Thus, to provide support for economic equality for the *Bumiputera*,⁵ a motion drawn by the Communities Liaison Committee resulted in Article 153 of the Federal Constitution [1957] which states that:

It shall be the responsibility of the Yang di Pertuan Agong (the King) to safeguard the special position of the Malays and natives of any of the States of Sabah and Sarawak and the legitimate interests of other communities in accordance with the provisions of this Article. [Article 153, Constitution of Malaysia, 1957].

To honour the special position of *Bumiputera* and to ensure that *Bumiputera* will have a wider access into HEIs following the racial riot of 13 May 1969, ethnic quotas were introduced as the basis of selection in government-funded or public universities. Article 153 provides that it shall be lawful for the King to give such directions to any university, college or institution providing education after the Malaysian Certificate of Education (now known as *Sijil Pelajaran Malaysia*, SPM) to ensure the reservation of such proportion of places for *Bumiputera* as the King may deem reasonable. The article provides specifically for the use of ethnic quotas in the granting of scholarships and access to higher education. Thus, the national policy had set the ethnic-based quota of *Bumiputera* to other races as 55:45 in HEIs.

Shad Saleem Faruqi (n.d.) in his talk on the Federal Constitution of Malaysia and the social contract raised two engaging issues concerning Article 153. First, what proportion of places can be allocated on an ethnic basis? Second, whether quotas apply to specific courses or to the university as a whole or to all universities combined? The ethnic-based quota of 55:45 set by the government would have taken all kinds of issues into consideration before the decision was made.

The former Prime Minister, Tun Mahathir Mohammed, suggested that the quota system for university entrance be abolished and replaced by the meritocracy system, a system solely based on scholastic abilities. He felt that the *Bumiputera* were ready for the challenge and less complacent of the protection afforded to them. The meritocracy system was introduced in 2002. It aroused a lot of dissatisfaction especially among the Malays. According to the principles of the policy, all students who are eligible with the highest merit, regardless of race, religion and living standards will not be denied the opportunity to pursue studies in HEIs. In the meritocracy policy, the student's merit points are calculated as 90 per cent academic competence and 10 per cent co-curricular engagement. The apportionment was the decision of the Ministry of Education.

University entrance requirements are also determined by the HEIs. Some programmes may require interviews; others may require personality tests or physical tests. It depends on the demands of the discipline. For example, the Malaysian Educators Selection Inventory test (MEdSI) was introduced to identify candidates who have the aptitude to become teachers. Teacher education applicants are required to sit for the psychometric test which is used as the first phase of selection. *Universiti Sains Malaysia*, the APEX University which exercises its autonomy in student selection, uses the Malaysian University Selection Yearly Inventory (MUnSYI) to ensure that the personality, interests, values, and the real potential of the student matches the study programme that he or she chooses.

The 60:40 ratio of science to non-science students according to study programmes has been a long standing policy to elevate Malaysia into a developed country by 2020. This is in line with the national science and technology vision, 'to become a nation that is competent, confident and innovative in

⁵ Generally, *Bumiputera* refers to the Malays, the indigenous people in Peninsular Malaysia (known as *Orang Asli*) and natives in Sabah and Sarawak.

harnessing, utilizing and advancing S&T towards achieving the goals of Vision 2020'. However, there has been a tremendous decrease in the number of applicants for science-based programmes due to the rigor of the pure science subjects taught in schools. Thus, HEIs face problems in meeting the predetermined ratio.

The meritocracy system continues to this date. However, certain new policies were added to it to provide social equity. It is realised that some students may be disadvantaged due to their low socio-economic status. Thus, at the beginning of 2013, all HEIs must allocate 100 places of their intake for the bottom 40 per cent income group in the population, despite these students not meeting the criteria for admission. These disadvantaged candidates are from families with low living standards based on household income of less than MYR 1,000 per month, single parents or family members with disabilities. This does not include candidates in the bottom 40 per cent income group that meet the meritocracy standards and who are shortlisted under the normal process. Since the competitive programmes such as medicine, pharmacy and engineering are most likely to be filled by more eligible candidates, the 100 places for disadvantaged students can only be offered for the less competitive programmes.

A few HEIs extend their corporate social responsibility (CSR) by admitting physically disabled or less-abled students. They provide all the facilities that these students may need. There are also HEIs that provide study opportunities for those who have been so involved in sports and have represented the nation that their academic performance has suffered. Again, these students must meet the minimum eligibility requirements for admission.

New policies regarding student selection may arise from issues in management meetings of departments within the Ministry of Education or during post-Cabinet meetings. Educationists contemplate that the meritocracy system may soon be halted due to several shortcomings that have caused some excellent students to be denied a publicly funded education.

As discussed above, Malaysia has made several policies to provide equity and wider access for students especially those from low income families, the disabled, and those deprived of full time study such as those actively involved in sports. The number of public universities has increased to 20 and more than 500 privates HEIs in 2012 (National Education Statistics: Higher Education Sector, 2012). Establishment of private HEIs allow for more and wider participation in higher education. It is also important to note that since 1997, the National Higher Education Fund Corporation was established to provide student loans, which in a way ensures that students who are eligible will not be denied the opportunity to study due to financial considerations.

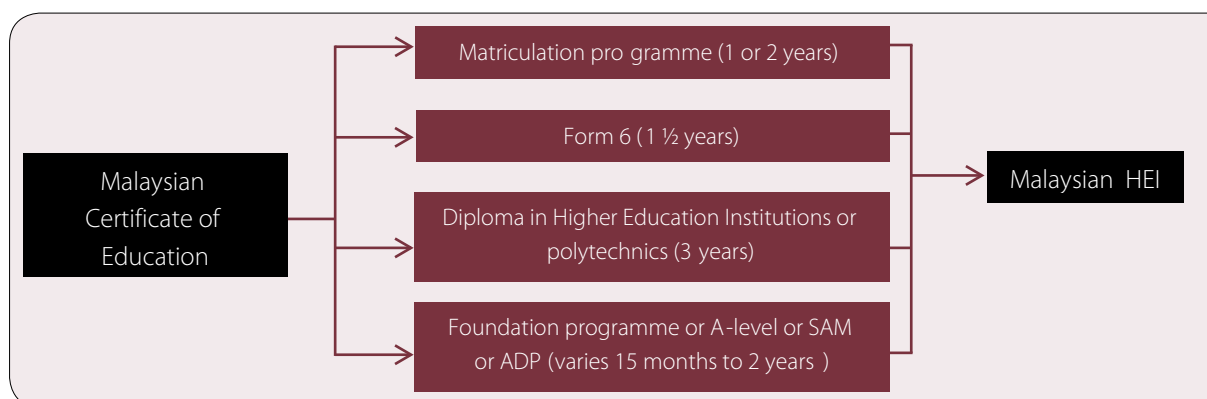
The Malaysian Qualification Agency has also introduced a second channel for student intake as part of the agenda on widening entry into higher education institutions. Apart from feeding from schools and matriculation colleges, Malaysia has been admitting students based on their prior experience, through the Accreditation of Prior Experiential Learning (APEL) pathway. APEL is defined as a systematic process involving the identification, documentation and evaluation of learning based on previous experience. The APEL process generally involves the evaluation of experience-based learning that can be obtained through formal schooling, life and work experience, training, independent study, voluntary work, hobbies and the like.

Pathway into Higher Education

Students intending to gain access to Malaysian HEIs are required to attend pre-university programmes (see Figure 1). Selected students based on the Malaysian Certificate of Education (SPM) (equivalent to the British O-level), taken at the end of Form 5 after 11 years of schooling, will be offered places to enrol in the Malaysian Matriculation Programme. The duration of the matriculation programme is one or two years, in which the offer made depends on students' performance in selected core subjects and also their involvement in co-curricular activities. Others may opt to complete an additional two years of secondary education in Lower and Upper Form 6, working towards the Malaysian Higher School Certificate (STPM), which is equivalent to the British A-level. They may also work towards the Malaysian Higher School Religious Certificate (STAM).

Another pathway to undergraduate programmes is by completing a 3 year diploma programme, either in higher education institutions, polytechnics or colleges. Other alternatives to gain entry into universities include foundation programmes and Cambridge GCE Advanced-level (A-level), South Australian Matriculation (SAM), and American Degree Programs (ADP). Some of the foundation programmes also prepare students who intend to study abroad. For example, one programme prepares students for the Monbukagakusho examination, a special entrance examination to Japanese universities.

Figure 1: Pathways to Malaysian higher education institutions



Admission Criteria

The criteria set by public universities were obtained from decisions made from meetings and studies at the ministry level which will ensure that accessibility to public universities will comply with the nation's needs and equity rationales required by the government. The Economic Planning Unit (EPU) is responsible in providing workforce number projections which can be used by universities to determine the number of seats to make available for their programmes. The criteria for university admission are decided after considering comments from government agencies, schools, professional bodies, civil society, local communities and industry. One example is the inclusion of English proficiency as an admission requirement as suggested by the industrial community who believe that English is an important prerequisite for success in manufacturing and business.

Student admission to universities in Malaysia for undergraduate degrees is based on their performance in national examinations under the Ministry of Education. The examination consists of Higher School Certificate of Malaysia (STPM), Malaysian High School Religious Certificate (STAM), Certificate from Malaysian Matriculation Colleges, and Malaysian Certificate of Education (SPM). The qualification from Foundation Programmes offered by the public or private universities, and

Diploma certificates from local institutions and universities abroad can be used as academic entrance requirements. Diploma Programmes are offered by either public or private HEIs which includes polytechnics. The SPM qualification can also be used to gain entrance for Diploma Programmes. Apart from that, Malaysian Skill Certificate (SKM) or Vocational Certificate can also be used for entry into diploma programmes.

Both public and private HEIs compete for the same students, thus the criteria and selection mechanisms are almost similar with slight differences between one institution and another. This is important because all academic programmes in Malaysian universities must obtain accreditation from the Malaysian Qualifying Agency and recognition from the Public Service Department for employment in the government sector. The differences in the criteria may vary according to the needs of the programmes. In some private HEIs, entrance criteria may vary as they are used as marketing strategies. However, renowned private institutions and branch campuses of international universities will not compromise numbers at the expense of the quality of students.

The admission criteria to public universities consist of two components: the general requirement and the specific requirement. The general requirements are that students must obtain the minimum Cumulative Grade Point Average (CGPA) of 2.0 in the national examinations, matriculation or Diploma; Malaysian University English Test (MUET) of at least Band 1; and a credit in English language and Malay language at the SPM level. For some private institutions, Malay language is not a requirement while the English proficiencies can also be based on the marks/grading obtained in Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS). Under many circumstances, the cut off CPGA for university entrance has increased significantly over the years for all the programmes because the quality of the applicants in terms of their qualifications has increased tremendously, as indicated by scores such as cumulative grade point average (CGPA).

The specific entrance requirements are criteria that are set by the faculties of the universities based on the disciplines and their specialisation. The requirements are specific to each faculty and the programmes and will be decided by the faculty itself. These specific requirements can change with time and the quality of students who apply for a particular course may also change. The faculty may set a higher requirement for competitive courses such as engineering, medicine, pharmacy, veterinary medicine or even in certain science programmes. Even in the same disciplines, the specific requirement may differ based on the specialisation. Generally, students are expected to secure full pass in at least two subjects, for example for engineering courses, mathematics and physics are mandatory, while in medicine, good grades in subjects such as biology and chemistry are crucial.

Getting admission to universities, particularly public universities and renowned private higher institutions, is highly competitive, thus the specific requirements tend to get tougher over the years. Only select students with good grades get admitted to competitive courses such as medicine, pharmacy, dentistry, engineering, law and education. Slightly lower entrance requirements are observed in private universities and because of this, those students who fail to gain entrance in public universities will submit their application to private institutions. Apart from academic qualifications which carry 90 per cent of the marks, the Ministry of Education also requires students to achieve excellence in co-curriculum activities (non-cognitive assessment) which carry the maximum mark of 10 per cent. There is a strong possibility that students with similar academic credentials but with higher non-cognitive abilities will be given greater consideration than those with less non-cognitive abilities.

The faculty through its Academic Committee will decide on the specific requirements by providing justification for the requirements it sets. For some universities who offer competitive courses,

candidates will have to undergo an interview. Interviews are conducted to determine whether the candidates are not only intellectually competent but also physically fit and with the desired attributes needed to undertake the course of study. The specific requirements and the requirement for interviews are made known through brochures, websites, guidelines, university entrance documents, and educational exhibitions. The specific requirements will be provided to BPKP who will include them in the E-MAS system (Management Admission System) for students to view while preparing their applications.

For general admission requirements, the centralised division, BPKP, has not made any drastic revisions. On the other hand, the faculties' specific requirements will be reviewed every year by the universities before being sent to BPKP for the students. The students will need information on the specific requirements before deciding on their choice of university and their desired programmes. Apart from academic qualifications as an entrance requirement, some established public universities have also considered admission based on working experience (Accreditation of Prior Experiential Learning, APEL). Selection is done within the universities which are seen to admit older candidates or even senior citizens as undergraduate students.

The admission of foreign students in public universities is not allowed in competitive courses. It is limited to 10 per cent in non-competitive courses because of the few places available and also because undergraduate programmes are highly subsidised by the government. However, there is no limit to admission of foreign students in the postgraduate programmes. On the other hand, private institutions do not limit admission of foreign students, regardless of the course or programme.

Selection Mechanism for Admission

The centralised service for admission provided by the Ministry of Education through BPKP is based on the merits of the candidates. Since 2002 the ethnic quota is no longer in practice. There have been intense debates on the idea of meritocracy by educationists, politicians and even NGOs some of whom believe that meritocracy lacks transparency. Some think meritocracy should be the way forward for admission to universities provided that the country has equivalent entrance application requirements based on equivalent entrance examinations. However, fair and unbiased selection processes must always be given top consideration.

To ensure acceptable accessibility and equity for all potential students, each candidate is allowed to make eight choices with the hope that those with good grades will succeed in their choice. However, if a particular course is extremely competitive, there is a possibility that the candidates may not get their first choice and thus, their second choice will be considered. Therefore, each candidate must match the grades they have obtained with the intensity of competition for a particular course. Thus meritocracy is also about competitiveness.

Many believe that students with good grades will get a place at university. A student with good grades who does not get a place indicates that he or she is making unreasonable requests, such as applying for only a single course or only at one institution, or will not accept courses other than those they have asked for. This group of good candidates who do not get the courses they want may think that they have been denied a place. Since the government is giving similar privileges to private institutions, especially access to the national education loan scheme (PTPTN), these students who fail to get into the public universities will opt for private institutions instead.

For admission via BPKP into public universities, the selection mechanism is as follows:

- a. After the examination results are announced by the Ministry of Education, candidates will apply online. After the data on the application is received the first meeting of Pre-Council (Student Selection Committee I) will be held. The meeting will be chaired by The Director of BPKP and the members are representatives from the public universities. The initial listing of successful candidates generated by the computer system will be produced (Pre-success) based on the input of the general and specific requirements for each course. Each university will study the list of successful candidates and confirm the qualifications of the candidates before the Pre-success listing is finalised. The Pre-success listing will give a strong indication on the concept of 'University of Choice' because it will illustrate the exact figure of the eight choices made by the candidates for a university and programme or course.
- b. The second Pre-Council Meeting (Student Selection Committee II) will be held to examine the students who are not successful during the First Pre-Council meeting. This is actually a coordination meeting which will try to provide places for all remaining qualified students. These students will be given university places but the courses offered may not be their choice. Candidates who are unsuccessful in getting places during the first Pre-Council Meeting do not fail because they are not academically qualified: the majority fall into this group because of wrong choices in the selection of university or programme. Some of the candidates may also not qualify because of a low contribution to the 10 per cent co-curriculum requirement, or they are deemed not suitable during the interview. However, they may qualify for other courses. Candidates must understand that the present selection mechanism does result in competition among applicants for the same programme. Thus the possibility of not getting a place may occur for highly competitive programmes with limited places. During the meeting each university must be sure of the number of places they can offer. During the meeting, appeals will also be considered for cases which are sent directly to BPKP. These students may sometimes be known as the 'second intake.'
- c. After the Pre-Council Meeting II, the new listing of students will be provided to each university who will be responsible to table it to the senate of the University for Consideration. The successful candidates will be announced online before the official offer letter is issued. A duration of two weeks will be given to the students to respond whether they will accept the offer or otherwise.

Most public universities are pleased and satisfied with the current selection mechanism implemented centrally by BPKP. In the selection process no university knows the candidate's identity. Selection is done completely on merit. Only the candidate's identification card number and grades are provided to the selection committee thus there is no bias in terms of ethnicity. It is a fair selection process.

The selection mechanism also ensures that all qualified candidates will be distributed to all public universities so that there are enough candidates for all the courses offered. The selection mechanism also assists new universities to gain the critical mass to develop the university. The selection mechanism does not discriminate against students with physical disabilities or disadvantaged backgrounds. It is the responsibility of the universities to provide facilities to accommodate students with disabilities when they admit them.

The ministry also encourages the bottom 40 per cent of the country's population especially those from disadvantaged backgrounds to be considered. Universities are asked to offer 100 places to those from the low income group. They are identified based on household income indicated in the application form and endorsed by their previous schools. After the selection based on merit is completed, the selection of the 100 candidates is done manually. Preferences or opportunities may also be given to candidates who are considered poor or unable to continue their education at the

tertiary level. The ministry also encourages universities to set up special routes for physically impaired candidates, *Orang Asli* or even athletes to be admitted to the universities. Such arrangement will be made manually within each university.

The central selection mechanism does have its limitations, however. For example, students with good grades may end up not getting a place due to the wrong choice of courses. The choices made by students will normally be in the order of from older, established universities to newer universities and from more competitive courses to less competitive courses. New universities with less competitive courses will be the last resort for many students. Such a situation has resulted in new universities getting fewer high quality students. This presents a challenge to new universities to enhance their reputation through the provision of adequate and quality infrastructure and hire and retain academic staff with sound track records. Universities with a good reputation will be the main pulling factor for most students when choosing a destination for their tertiary education.

Students who have failed to get a place at any university are allowed to appeal. They will need to write to the Central Appeal System in BPKP. However, there are students who also write to the universities directly. In this case the Admission Unit of the university will pass the appeal application to the faculty, which will then consider the applicant's academic qualifications and suitability for the course requested. The faculty will need the approval of the Deputy Vice Chancellor (Academic & Internationalisation) of the university before the offer letter can be issued.

The availability of places at the public universities will be made known to BPKP after registration of the new students. This in turn indicates the number of students who can be considered during the Appeal Meeting. Normally, about 20 per cent of the appeal cases can be considered by the universities. At BPKP, all appeal applications will be processed and considered. All successful appeals will be conveyed to the respective universities who will prepare the offer documents to the students.

Table 1 gives an idea of the results of the selection process for admission to public universities. Based on the general and basic requirements for admission, significant numbers of candidates are actually qualified for admission to public universities. However, due to the limited number of places and the competitiveness of a particular programme, some of the candidates will not be successful. This is also the likely consequence of a candidate with relatively moderate grades aiming for admission into critical programmes. Upon comparison between ethnicities in 2013, the success rate for *Bumiputera* was 61 per cent, which is slightly lower than the Chinese at 66 per cent; while the Indian applicants achieved a 51 per cent success rate. Similarly, attention has also been given to the *Orang Asli*, the handicapped and athletes with a significant success rate for admission to public universities (Table 2).

Table 1: Distribution of applicants, qualified applicants and successful applicants by ethnic group in 2013

| Ethnic Group | No. of Applicants | No. of Qualified Applicants (%) | No. of Successful Applicants (%) |
|-------------------|-------------------|---------------------------------|----------------------------------|
| <i>Bumiputera</i> | 50,560 | 43,245 (85.5%) | 30,903 (61.1%) |
| Chinese | 12,065 | 10,479 (86.9%) | 7,913 (65.6%) |
| Indian | 3,586 | 2,648 (73.8%) | 1,824 (50.9%) |
| Others | 2,491 | 1,430 (57.4%) | 933 (34.5%) |
| Total | 68,702 | 57,802 (84.1%) | 41,573 (60.5%) |

Source: BERNAMA, 2013.

Table 2: Distribution of applicants, qualified applicants and successful applicants for Orang Asli, handicapped and athletes in 2013

| Group | No. of Applicants | No. of Qualified Applicants (%) | No. of Successful Applicants (%) |
|-------------------|-------------------|---------------------------------|----------------------------------|
| <i>Orang Asli</i> | 100 | 74 (74.0%) | 49 (49.0%) |
| Handicapped | 223 | 160 (71.7%) | 68 (30.5%) |
| Athlete | 2,201 | 1,834 (83.3%) | 1,515 (68.8%) |

Source: BERNAMA, 2013.

The information shown in Table 1 suggests that based on the narrow range of differences in the success rate for admission to public universities among ethnic groups, the selection mechanism adopted by the Ministry can be considered commendable.

It is also important to note that students' choices of courses or programmes or even universities are highly influenced by the schools and the community. Most institutions have carried out numerous promotional activities including distribution of information, academic talks to schools/matriculation colleges, however their effectiveness remains unclear. In fact, prior to these visits, some students are ignorant of the existence of certain programmes at certain institutions. It is also the trend among school career teachers to be inclined towards advocating well established and older universities more than the newer ones due to their lack of knowledge on new developments in higher education. Schools and matriculation colleges should play a bigger role in addressing problems and issues related to university admission. This is because schools and matriculation colleges have the opportunity to provide advice and direction to their students to submit successful applications for university entrance.

Parents are also a major influence on their children's selection of universities. Parents provide not only information on courses and universities, they will also express their hopes on what they want their children to be. Some parents understand the suitability of courses based on their child's academic performance, but many parents are too ambitious and ask their children to apply for competitive courses even though they know the limitations of their children.

Impact of the Selection Mechanism

The selection mechanism for entry into public and private HEIs relies heavily on the academic performance of the applicants. The result of the Malaysian Certificate of Education (SPM), as a leaving certificate for secondary school, has vast importance in deciding the future of students hoping to move to higher education. The strong reliance on academic performance and examination results has an impact on secondary education and society, including educational, economic and socio-political perspectives.

Access and Equity in Higher Education

The educational impact of the selection mechanism is directly related to the issue of widening access and enhancing equity in higher education, particularly access and equity in public HEIs. Recognising the concern about the strong emphasis on academic performance and examination results, a number of initiatives have been introduced to improve the selection mechanism at policy and institutional levels.

In so far as to widen access to higher education, a number of under-represented groups in higher education have been identified and efforts have been taken to encourage the participation of students from these groups. Efforts include a policy initiative at the Ministry of Education which requires

every public HEIs to admit 100 students from the bottom 40 per cent of households classified as 'poor' into non-competitive programmes. On top of that, the Ministry also has separate access pathways for the handicapped, *Orang Asli* and athletes, to ensure students from these groups are given ample opportunities to pursue higher education and are not left behind.

At the institutional level there are also similar initiatives but in a more elaborate manner. As USM is the APEX University given the autonomy to select its own students, initiatives have been introduced not only to widen access of the poor, handicapped, and athletes, but also senior citizens and people who are active in art and culture. To operationalise these initiatives, USM modified and diversified its selection mechanisms to allow different groups of students to apply directly to the university. For example, for senior citizens above the age of 50, the minimum admission requirements are language proficiency in the Malay language and 10 years of working experience. For athletes and those in arts and culture the selection mechanism takes into account their level of participation and a minimum Cumulative Grade Point Average (CGPA) of 2.00 out of 4.00. Even before the ministry introduced the special allocation for the bottom 40 per cent income group, USM through its Bottom Billion Project under the Accelerated Programme for Excellence (APEX) in 2008 has encouraged the schools and departments of the university to admit students from under-represented groups, particularly students from poor families and the *Orang Asli*.

To enhance equity and to reduce the emphasis on examination results, the national selection mechanism for public HEIs has introduced at least three major initiatives to incorporate more non-cognitive elements. These initiatives include the allocation of 10 per cent for extra-curricular activities, the introduction of face-to-face interviews and aptitude tests. However, it is important to point out that while these initiatives were intended to develop a more holistic selection mechanism, there remain pros and cons.

First, although extra-curricular activities have been part of the selection mechanism for public HEIs for more than a decade, the initiative to formalise the 90:10 ratio in terms of weightage was only implemented in 2007. Prior to that, extra-curricular activities were only used as a 'tie-breaker' in cases where two students have the same academic performance (Anon, 2006). The formalisation of the 90:10 ratio has therefore given some prominence to the development of non-cognitive abilities in students, and at the same time, also reduced the emphasis on examination results.

Second, in competitive courses such as medicine, pharmacy, and engineering, interviews have also become part of the selection process. While using an interview session to evaluate an applicant's suitability to become a doctor and to judge his or her non-cognitive skills of presentation and communication may be appropriate, interviews as part of the selection mechanism are highly subjective. The appropriateness of using different interview panels to evaluate applicants may raise questions about consistency between and across interviewers. Inconsistency and subjectivity have been criticised openly in recent months through many debates in the Malaysian media concerning the role of interviews in the selection mechanism of public HEIs (Anon, 2013a; Anon, 2013c). However, criticisms about bias and inconsistency are not limited to the Malaysian context: world-renowned Oxbridge interviews have also been subjected to similar criticism (Anon, 2013b). Nonetheless, to ensure the reliability and effectiveness of interviews as part of the selection mechanism, departments and faculties in Malaysian public HEIs have conducted workshops for their academic staff on how to interview students. The workshops include simulation and mock interviews with the participants comparing marks to ensure consistency in evaluating the interviewees.

Third, interestingly, as USM was given the autonomy to select students, the APEX University aims to select the best. To help the university in achieving this aim, the Malaysian University Selection Yearly Inventory (MUnSYI) was developed by a group of independent experts under the supervision of the Malaysian Examination Council to take into consideration the intrinsic and

affective aspects of the applicants. The fundamental idea of MUnSYI is to get the most suitable applicants based on the concept of 'the right individual for the right programme' and to also help reduce problems associated with the inappropriate choice of programmes, such as dropouts and poor academic performance (USM, 2009, p. 50). MUnSYI, therefore, records the intrinsic quality of the applicants in terms of career interest, personality, integrity and emotional agility. However, to conduct the aptitude test effectively poses a huge challenge to the university in terms of cost and logistics. As USM has received more than 50,000 applications in an academic year, it encountered logistical challenges to administer the aptitude test across the country. Thus, USM has to outsource the test to the Malaysian Examination Board, which conducts the Higher School Certificate of Malaysia (STPM). However, because the outsourcing process has incurred an additional cost to the university, part of the cost was passed to the applicants in the form of application fees. Due to logistical and cost considerations, MUnSYI has been put on hold temporarily for the intake of the academic year 2013/2014.

Shadow Education

As the selection mechanism to higher education strongly emphasises examination results, there is an educational impact on secondary schools as well as an economic impact to society in the form of shadow education. Not only is the selection mechanism to public HEIs highly academic in nature, admission criteria for private HEIs are also strongly dependent on the results of the SPM examination. Furthermore, most of the prestigious scholarships to pursue higher education abroad offered by the government, government agencies and corporations require an almost perfect SPM result. Thus, SPM, which is a subject-based examination, is also a high-stake examination for secondary school students.

To ensure secondary school students do well in the SPM examination, two distinct forms of shadow education can be observed from a survey that the team had conducted for this study, across six schools in Malaysia involving 641 students preparing to sit for the SPM examination. Using the definition of Stevenson and Baker (1992, p.1639), whereby 'shadow education is a set of educational activities that occur outside formal schooling and are designed to enhance the student's formal school career' we are able to characterise the two distinctive forms of shadow education as internal tuition and external tuition.

Internal tuition refers to the extra classes organised in schools by teachers but these classes take place outside of formal school hours. They may be conducted in small groups in the afternoon or evening, especially in schools with boarding facilities. In most cases, internal tuition relies heavily on the initiative and effort of the school teachers. Conversely, external tuition refers to private classes. These classes may be carried out on a one-to-one basis or in groups at a private tuition centre. They involve payment of fees.

The survey found that 71 and 58 per cent of the 641 students attend some form of internal and external tuition respectively, and almost 40 per cent of the students attend both internal and external tuition (see Table 3). Among those who do not attend internal tuition in school, 63 per cent were attending external tuition. Interestingly, there were only 70 students out of the total 641 who did not take any form of tuition. This suggests that merely 11 per cent of students are not involved in any form of tuition, which further implies the prevalence of shadow education in preparing students for the SPM examination (see Table 3).

Table 3: Number of students who attend extra tuition

| | Frequency | Percentage |
|--------------------------------------|-----------|------------|
| Attend Internal and External Tuition | 252 | 39% |
| Attend Internal Tuition Only | 202 | 32% |
| Attend External Tuition Only | 117 | 18% |
| Do not attend any tuition | 70 | 11% |
| Total | 641 | 100% |

Students who attend tuition spend on average 6.5 and 6 hours a week on internal tuition in school and external tuition respectively. However, the dispersion in terms of number of hours spent on tuition as illustrated in Table 4 is much greater. There are students who spend more than 20 extra hours to attend tuition in school as well as private tuition.

Table 4: Number of hours spent on extra tuition in a week

| Hours Spent in a Week | Internal | External |
|-----------------------|----------|----------|
| >0 – 2.5 | 103 | 68 |
| >2.5 – 5.0 | 132 | 89 |
| >5.0 – 7.5 | 34 | 59 |
| >7.5 – 10.0 | 87 | 72 |
| >10.0 – 15.0 | 19 | 30 |
| >15.0 – 20.0 | 23 | 4 |
| >20.0 | 18 | 2 |
| Did Not Report | 38 | 45 |
| Total | 454 | 369 |

As external tuition involves some form of fees, the student or parents will have to bear the cost. The extent of this cost signify the economic value of shadow education. On average, a student who attends external tuition spends MYR 181.43 per month. It is interesting to note spending ranged from the minimum of MYR 5.00 per month to MYR 1,100.00 per month (see Table 5).

Table 5: Amount spent on extra tuition in a month

| Amount Spent per Month (RM) | Number of Students |
|-----------------------------|--------------------|
| >0 – 50 | 70 |
| >50 – 100 | 83 |
| >100 – 150 | 38 |
| >150 – 200 | 34 |
| >200 – 250 | 36 |
| >250 – 300 | 22 |
| >300 – 350 | 21 |
| >350 – 400 | 16 |
| >400 – 450 | 5 |
| >450 | 18 |
| Did Not Report | 26 |
| Total | 369 |

Having identified the extent of shadow education in the preparation of students sitting for the SPM examination, it is also important to understand the perception of students and their aspiration to pursue higher education in relation to their participation in shadow education. Many of the students

who attend tuition, stated that among the reasons and motivation to do so includes strengthening their understanding of a particular subject and supporting them to achieve a better academic performance. Table 6 presents the number of students who attend and who do not attend tuition classes, their aspiration to pursue higher education and their perception as to whether tuition can help them to fulfil this aspiration. In proportional terms, students who do not intend to pursue higher education tend not to attend tuition and do not see the role of tuition in helping them to go on and pursue higher education. Vice versa, students who attend tuition are more likely to have the aspiration to pursue higher education and believe that tuition can support them to work towards this goal.

Table 6: Perception of students about tuition and their intention to pursue higher education

| | | Intention to go into higher education | Tuition plays a role in helping them to go into higher education |
|----------------------------------|----------------|---------------------------------------|--|
| Those who attend Tuition | Yes | 543 | 405 |
| | No | 17 | 31 |
| | Did Not Report | 11 | 135 |
| | Total | 571 | 571 |
| Those who did not attend Tuition | Yes | 57 | 27 |
| | No | 6 | 12 |
| | Did Not Report | 7 | 31 |
| | Total | 70 | 70 |

Apart from the monetary cost to students and their parents, shadow education also has further economic implications. Teachers and students have to devote more of their time to tuition classes with the hope that students get better results in the SPM examination. The economic implications are the additional time and resources devoted to enhance the academic performance of students in secondary school. Therefore, as the selection mechanisms for higher education, both public and private, are heavily reliant on the results of the SPM examination, internal and external forms of shadow education have emerged to complement formal schooling in secondary school.

The Ethnic Factor

Ethnicity has always been an important socio-political factor in a multi-ethnic society like Malaysia, more so on the essential issue of admission into higher education. A common connotation used in the Malaysian context on ethnicity is the notion of *Bumiputera* and non-*Bumiputera*. The influence of ethnicity on higher education can be divided into three phases: pre-1969, 1969–2001 and post-2001. Table 5 provides a snapshot of the ethnic proportions across these three phases.

The racial riot of 13 May 1969 marks the first transition point across the first two phases. In response to the aftermath of the riot, the New Economic Policy (NEP) was introduced in 1971. One of its major effects on higher education was the introduction of ethnic quotas for admission to public HEIs through the provision of Article 153 of the Federal Constitution. The impact of introducing ethnic quotas in 1971 can be seen as shown in Table 7 when the ethnic proportions changed significantly when compared to before the implementation of NEP in 1966/67.

Table 7: Ethnic proportion in Malaysian public universities, 1966–2013

| Year | <i>Bumiputera</i> | Chinese | Indian | Others | Total |
|------------------------|-------------------|---------|--------|--------|-------|
| 1966/1967 | 28.8 | 56.5 | | 14.7 | 100.0 |
| 1970 | 39.7 | 49.2 | | 11.1 | 100.0 |
| 1985 | 63.0 | 29.7 | | 7.3 | 100.0 |
| 2002 | 68.9 | 26.4 | | 4.7 | 100.0 |
| 2003 | 62.6 | 32.2 | | 5.2 | 100.0 |
| 2013/2014 ⁶ | 74.3 ⁷ | 19.0 | 4.4 | 2.3 | 100.0 |

Source: Sato, 2007 (quoting from Department of Statistics, 1972, 2001; Andressen, 1993; Reid, 1988) and BERNAMA, 2013

The second watershed event took place in 2001 when the then Prime Minister announced that the ethnic quota would be abolished and beginning 2002, the admission criteria would be based solely on academic performance. Yet, even with the abolition of ethnic quotas and the introduction of meritocracy in the selection mechanism to public HEIs, the ethnic proportion has remained relatively unchanged. There are two possible explanations for the unchanged situation: one, the public higher education system has expanded to sufficiently accommodate the *Bumiputera*, for example through UiTM which admits about 30 percent of all *Bumiputera* students. Two, the landscape of higher education has changed with the rapid development of private higher education, of which the majority of students are non-*Bumiputera*. The second explanation will be explored further.

The significant influence of ethnicity in the selection mechanism, despite being abolished in 2001, continues to have a socio-political impact. The major impact of ethnic quotas, which has persisted despite being abolished, is the segregation of the public and private higher education sectors on ethnic lines. Ahmad and Noran (1999) argue that the growth of private HEIs in Malaysia has been partly because of the limited opportunities for deserving students of other ethnic groups who were denied entry to public HEIs. Hence, they estimate that about 95 per cent of the students in private HEIs are made up of non-*Bumiputera* students.

While the estimation of Ahmad and Noran (1999) was made prior to the abolishment of the racial quota, the lack of statistical information about ethnicity remains a challenge to illustrate the current situation. However, from the survey conducted with 641 students across six schools in Malaysia, the perception and aspiration of students to pursue higher education continues to demonstrate some patterns of ethnicity. In the survey, students who aspired to pursue higher education were asked to state their preference among public HEIs, private HEIs and overseas HEIs. *Bumiputera* students prefer public HEIs over private HEIs as their destination of higher education, while Chinese and Indian students prefer private over public HEIs. The differences between the ethnic groups are statistically significant.

On the other hand, for the choice of pursuing higher education locally and abroad, the only statistical difference is between students from the indigenous groups and the other three major ethnic groups of Malays, Chinese and Indians. This finding, apart from highlighting ethnicity differences, has also suggested more subtle differences between different parts of the country and their level of development. Students from the indigenous groups may not have the exposure and information to motivate them to think about pursuing higher education in an overseas university; and their aspiration for higher education remains very much with public HEIs in Malaysia. These two major findings of the survey have in a way highlighted the different preferences among students of the ethnic groups in their aspiration to pursue higher education.

⁶ Based on the announcement of the Director General of Higher Education for intake of 2013/2014.

⁷ Universiti Teknologi Mara (UiTM) is one of the 20 public universities which only admit *Bumiputera* students. Based on admission records between 2008–2011, this university admits on average 30 per cent of a cohort of students. Hence, a more accurate proportion of *Bumiputera* students in public universities is about 44.3 per cent.

Apart from the ethnic segregation between public and private HEIs, the impact of having racial quotas for admission into public HEIs between 1969 and 2001 has also led to the creation of a shadow support system to encourage students from a particular ethnic group to pursue higher education. In 1989, *QuanSheng*, an inter-university education counselling group was set up by a group of Chinese undergraduates in public HEIs, with the aim to provide guidance and to help Chinese students who intend to apply for admission into public HEIs. Among the initiatives undertaken by this group has been organising career talks and workshops about the courses in public HEIs as well as compiling information about the entry requirement and grades needed for admission into every single programme in public HEIs. The entry grades of Chinese students in all programmes, such as the average, minimum, maximum and mode, are published in the form of guidebook for application to public HEIs, and since 2002, this information is also made available on the internet. As the racial quota was abolished, this group has remained steadfast in providing information for Chinese students and in part shifted the focus on the different entry grades into public HEIs for Chinese students who sat for the *Sijil Tinggi Persekolahan Malaysia* (STPM), Matriculation or other pre-university programmes such as diploma and A-levels. Besides providing detailed information of entry grades, the group also shares additional information about scholarship and funding opportunities, as well as differences in curriculum and career opportunities across different programmes in a similar field. For instance, differences between (i) chemistry, industrial chemistry, analytical chemistry and chemical engineering, (ii) architecture and landscape, (iii) actuarial science, mathematics and statistics, (iv) marine biology and marine science, and (v) multimedia technology and information technology, are well-articulated by this support group.

This shadow support group can be seen as a bottom-up initiative to provide essential information in helping Chinese students to be more prepared and informed when applying for public HEIs. The additional information about each programme, specifically the detailed range of entry grades, has been a valuable source of guidance for students in navigating the challenge of applying for a programme compatible to their pre-university results. Furthermore, the group also add value to the existing information provided by the Ministry of Education and various HEIs, by not only providing the minimum general and specific requirements for each programme, but also giving potential students a better idea of the curriculum and career opportunities. This helps them to apply for a programme according to their interest as well as their pre-university examination results. More importantly, the group has illustrated the importance of information, more specifically, information such as entry grades, curriculum and career opportunities, to make the selection mechanism and the pathway into higher education more transparent and less mysterious. Perhaps due to the availability of information and better guidance, Chinese students have the highest success rate of application into public HEIs as compared to other ethnic groups (as shown in Table 1). The Ministry of Education has also provided information on universities, programmes offered, and eligibility for application through their numerous *Jom Masuk U* (translated as Let's Enter University) carnivals where all public and private HEIs are invited to participate. These roadshows are conducted in six geographical zones throughout East and West Malaysia.

Conclusions and Recommendations

Malaysian higher education has experienced rapid growth in both the number of students and institutions. The democratisation of primary and secondary education has led to the significant increase in the demand for higher education, at a rate that has outpaced the growth of higher education institutions. Hence, the competition for entry into higher education has become much more intense and this has further highlighted the importance of the selection mechanism.

The various admission policies for higher education in Malaysia, particularly into public HEIs, have demonstrated the role of selection mechanisms as a policy instrument. The ethnic-based quota, the science and non-science ratio, the move to a meritocracy system and newer initiatives such as separate access for handicapped and *Orang Asli* and a quota for the poorest from the bottom 40 per cent income group, have in one way or another illustrated the role of a selection mechanism in the socio-economic development of Malaysian society. At the same time, a selection mechanism that relies heavily on academic performance has also brought about impacts and implications to secondary education and society in terms of the economic costs and resources devoted to shadow education. In addition, by examining the selection mechanism and exploring the admission criteria and processes into HEIs we have demonstrated the importance of information and guidance to students in helping them to move into higher education. Therefore, understanding the selection mechanism and its various admission criteria into higher education in Malaysia is not only important to chart the development of higher education in the country, but also other levels of education and Malaysian society.

Based on what Malaysia has done to widen access and provide equity in terms of intake of students into higher education institutions, a few lessons can be learned by other countries.

- Being a multiracial country, extra measures must be taken to ensure harmonisation between races. Malaysia has had a quota system and a meritocracy system and has experienced set-backs from the application of these systems. Thus, the voices of the public (referred to as the *rakyat*) must be taken into account. The government has intervened to permit changes to the main system with the introduction of newer initiatives such as the quota from the bottom 40 per cent income group to allow for a greater participation of economically disadvantaged students. More policies will be introduced to ensure a more balanced participation between races.
- The entry requirement must be made more transparent. The minimum criteria for application stated in the brochures is a very raw guide in helping students choose a programme that matches their qualifications. Thus the ministry and higher education providers must provide more information such as the cut-off point for entry based on the accepted points of previous years. In Malaysia, one needs to have a full score, which is cumulative grade point average of 4.00 in Matriculation or Form 6, to be eligible for medical schools due to the extreme demand for the programme. The demand for medical school way exceeds the places available. Even some 4.00 pointers do not make it to medical school. On top of that, due to their lack of information on the required standard, many applicants who are not 4.00 pointers face the prospect of not securing a place at all. Thus, better career guidance must be given to help students make an informed application.
- In enhancing the quality of the selection mechanism, HEIs should consider more diverse modes of assessing the potential candidates for each programme. For example, instead of one-to-one interviews, a focus group interview can be implemented.

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The Transition from Secondary Education to Higher Education: Philippines

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Introduction

The approval of the K-12 reform on basic education in the Philippines gives a lot of interesting challenges to higher education in the country. Adjustments in the assessment procedures, curricular and delivery programmes are among those considered critical in the planning of university programmes and activities. In addition, the challenge of ASEAN integration in 2016 puts a lot of pressure on Philippine universities to align their efforts with the national agenda on developing quality education.

In view of the importance of doing country comparisons in Asia on the transition from secondary education to higher education, it is important that Philippine data be analyzed for improving our own system especially in the light of the K-12 reform in basic education and its impact on higher education. The role of Philippine universities in the transition from secondary education to higher education cannot be overemphasized. It is imperative to come up with country level and evidence-based information on how universities identify students from secondary schools to enter the higher education institutions. Such information will be valuable in providing advice on policy development for the transitioning of students from secondary to higher education level.

Philippine Study on the Transition from Secondary Education to Higher Education

The study on the transition from secondary to higher education level in the Philippines was done by the Philippine Normal University (PNU) between the period April–August 2013 in coordination with the Commission on Higher Education (CHED) in line with the country's participation in the ERI-Net study of UNESCO. This paper was designed to examine the admission policies and procedures for entrance in the tertiary level or higher education. It is also aimed at rethinking the role and mission of higher education and its connection with secondary education. Due to the rapidly growing demand for higher education, competition for entering into prestigious higher education institutions (HEIs), both public and private universities, has become more challenging. Admission requirements are putting heavy pressure on secondary education resulting in an emphasis on producing academically competent students who respond well to the various screening mechanisms used by HEIs.

Considering the trends and changes in the education systems in Asia, including that of the Philippines, this report is an essential component of the ERI-Net research project. The findings of this paper and others from selected countries in the region will impart a more nuanced understanding of the transition from secondary to higher education and the implications of HEIs' selection mechanisms. This will inform the necessary reforms to the changing field of higher education in the region.

A common framework for participating Asian countries guides the methodology and data collection system for the study.

The following are the overarching questions of the study:

1. Why are the reforms of college admission policies important for the country/system?
2. What are current university admission systems in the country?
3. What is the impact of the selection mechanisms on secondary education and society?
4. What are the ways forward?

Methodology

Since the Philippines does not have a unified system for university admission, it is important that sample institutions for various types be considered for data collection and analysis. As of 2011, data from the CHED website shows that there are 1,743 publicly listed HEIs in the country. The sampling procedure for data collection and analysis is described in a separate section below.

The study used a quantitative-descriptive, cross-sectional research design. A total of 73 HEIs, both public and privately funded, including those that are being supported by the local governments were identified as samples for the study. They were drawn from the 16 regions of the country representing various areas or geographical groupings covering Northern Luzon, Southern Luzon, Visayas, Mindanao and the National Capital Region (NCR).

Data Collection Strategies

Multi-method was employed in gathering data from the sample institutions. Data on admission was obtained from the university and college websites. In addition, questionnaires were sent by fax and email to sample institutions. However, only 55 of the 85 sample institutions were included in this study. A round-table discussion was done to validate the data gathered from the websites and the questionnaires and to gather additional information as required by the study. The participating institutions at the round table were selected by stratified sampling from the 85 original sample institutions. A total of 31 HEIs and five secondary schools were present. Of the 31 institutions, 13 are already included in the 55 HEIs that participated in the survey. They were clustered to three groups. Each group was asked to respond to a list of questions as defined by the study.

Development of the Questionnaire and Survey

There were two phases of the study. Phase I was the development and validation of the researcher made questionnaire. The comprehensive questionnaire focused on admission policies, criteria, history and reforms. It has undergone both face and content validity. The questionnaires were given to a representative sample of admissions directors of five HEIs – two from state colleges and universities or publicly owned HEIs, two from the privately owned colleges and universities and one from the schools of local government units. They were requested to give their comments and suggestions with regard to content, acceptability and language clarity of the instrument. The five admissions directors were also interviewed to clarify some points in the questionnaire.

For each target HEIs, a respondent was identified from any of the following key officials: the Admission Director, Vice President for Academics, the Registrar or any other university official in-charge of admission.

The questionnaire has two parts. Part one is on admission policies and procedures. Part two is on the transition from secondary to tertiary level. The final form of the questionnaire was then used in the round-table discussion.

Interview

An interview was likewise conducted with the heads of the test development section of the Center for Educational Measurement (CEM), an independent assessment body which provides service to universities on assessing students for admission. The interview focused on the types of tests CEM provides to its client institutions. It was reported that a number of public and private HEIs, without giving their names, are provided services on admissions testing by CEM. Most of the tests given by CEM are standardized and cognitive in nature with alignment to the requirements of the professions being targeted. There are also non-cognitive items related to the targeted professions.

HEIs that are not serviced by CEM are either using their institutionally developed admissions tests or other standardized tests.

Philippine Universities

Type of Universities

Universities and colleges in the Philippines, also referred to as higher education institutions (or HEIs) consist of three types: (a) state colleges and universities (SUCs) are those that receive national government budgetary support; (b) private colleges and universities which derive their income mainly from student tuition and school fees and other ventures; and (c) schools of local government units (LGUs) which are supported with funds by city or provincial governments. The first two types often have more mature programmes at bachelor's and master's levels with a significant number having doctoral programmes. The latter mostly offer both post secondary technical education and bachelor's programmes. A few of them offer graduate studies. As of 2012, there are 110 SUCs, 1,486 private colleges and universities and 147 LGU supported educational institutions.

Sampling and Respondents

The sampling of HEIs was done for two categories of data gathering – for the web survey and the round-table discussion. For gathering web information on admission policies, the sample consists of 30 per cent of the total number of SUCs; three per cent of the private universities and colleges and three per cent of the schools owned by LGUs. One specialized university was identified from among the SUCs. For private universities and colleges, they have a 50 per cent allocation for each of comprehensive and specialized types of universities. This was done to have a reasonable representation of various types of universities and colleges. Using this framework, the sample HEIs were drawn randomly. The total sample for the web survey was 85 HEIs. However, only 55 HEIs with complete data of the 85 target sample were considered in the final phase.

Table 1 in Annex A provides the sampling scheme for the respondents from the major geographical areas of the country.

For the second category of respondents, a total of 36 institutions from the different regions of the country participated in the round-table discussion (RTD). Of the 36 participants – 27 are HEIs, five are schools from LGUs and four from the secondary schools. Of the 32 HEIs, 18 were not part of the web survey but represented HEIs from Luzon, Visayas and Mindanao, the major islands of the Philippines, and Metro Manila which has the highest number of HEIs in the country.

A total of 73 HEIs, (55 HEIs in the web survey, 18 from the RTD) both public and privately funded, including those that are being supported by the local government units and four secondary schools participated in this study.

Policies on the Transition from Secondary Education to Higher Education

The Philippine Basic Education System

Formal education in the Philippines is characterized by the transition from compulsory, comprehensive primary education to secondary education. The purpose of secondary schooling is to prepare the youth for higher education or to train them directly in certain careers. The Department of Education (DepEd) provides directions and supervision on the entire basic education system which covers early childhood education up to secondary school level. This means that DepEd has governance and direct supervision over public schools and is authorized to set mandatory policies for private schools. The department also provides for a separate office for non-formal education which serves the needs of students who are not in the regular school system, to help them obtain a graduation certificate thru alternative learning mechanisms. DepEd's mandate includes the development of the curriculum, along with the management of funds for public school services, which includes the recruitment of public school teachers.

Ideally, a Filipino youth enters secondary education at the age of 12. After completing his/her secondary education, the student may progress towards technical education and skills development (non-degree) and earn a certificate or a diploma within one to three years, depending on the skills developed. Students also have the option to enroll in higher education programmes to earn a four-year or five-year baccalaureate degree. On the other hand, a further opportunity is to learn through the Alternative Learning System (ALS) which provides both non-formal and informal sources of knowledge and skills. There is a system for accreditation and the equivalency for those who go through the alternative system for learning for their basic education. Certification is provided after a successful completion of the accreditation and equivalency test at two learning levels. Development of quality education is an important element in a competitive global market which values graduates with higher levels of competency and skills.

Admission to colleges and universities is perceived to be a highly academic exercise. As part of the preparation, academic skills training is given emphasis in secondary schools and performance in these skills basically dictates the career choices of high school students. Specific activities are also given to assist high school students in career choices. High school students are exposed to career fairs, career talks and seminars, university field trips, standardized tests on interests, aptitudes and personality and recently the National Career Achievement Examination (NCAE). The purpose of the NCAE is to guide graduating high school students in choosing the appropriate career path by assessing their aptitudes. It is entirely recommendatory and to be used in career guidance (DepEd).

Other factors are now considered in preparing secondary students to move up to the tertiary level. Counsellors (specifically in the public schools) are giving importance to emotional and social preparedness of the student to go into college or university. High school graduates particularly coming from smaller schools may experience culture shock when entering a big college or university. Their inability to adjust to college life in spite of qualifying and sometimes even having scholarships leads to dropping out. High school counsellors are looking for ways to assist their students in acquiring skills necessary for college life.

Entry to College Level

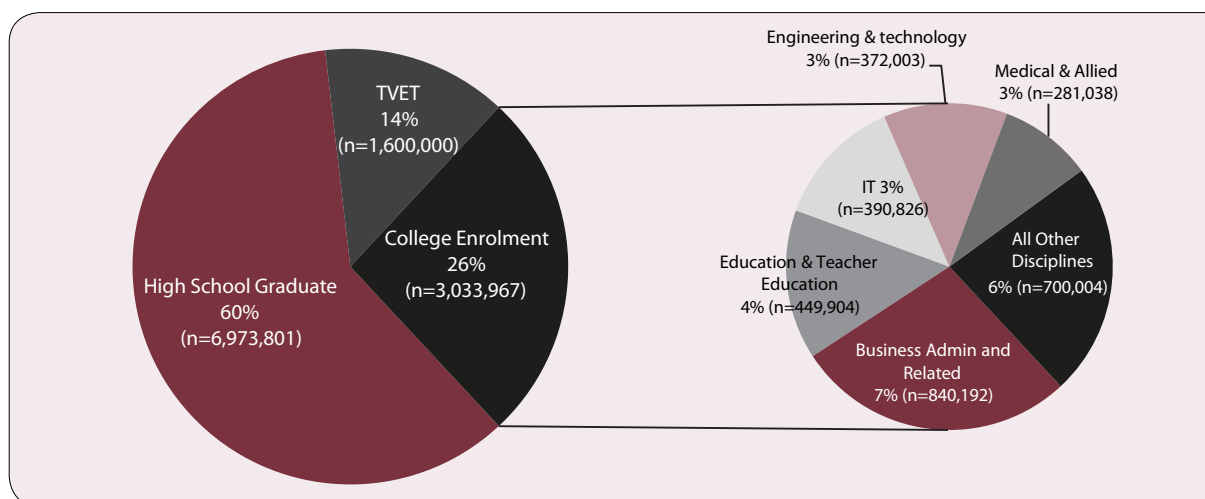
Filipinos have recognized over the years the importance of education in the country's development. To be competitive in the world arena, the country needs to continuously improve the skills and productivity of its citizens. The secondary and tertiary education system is one essential aspect of the development of the human resource base in the country, particularly in poverty-affected areas.

Philippine education faces enormous challenges. Despite the national policy on compulsory basic education, data reveal that the completion rates for SY 2010–2011 indicate that more girls than boys (77.14 percent versus 67.65 percent) were able to complete the prescribed number of years in both elementary (6 years) and secondary education (4 years). Correspondingly, an average of 75 for every 100 students completes secondary education while there are six for every 100 pupils who drop out at the elementary level.

While there has been a significant growth in secondary school enrolment in recent years, an important challenge to Philippine education is to ensure that secondary education is accessible to all and that students will finish high school. Data for 2011–2012 reveal that there were 5,575,945 and 1,397,856 students who graduated from public and private schools, respectively. It was projected that 3,119,308 were incoming freshmen students in higher education and at least 1,600,000 high school graduates were enrolled in technical-vocational courses.

The top courses in higher education are business administration, teacher education, IT, engineering and technology and medical and allied courses. However, the delivery of quality basic education is a continuing concern and challenge for the country.

Figure 1: Distribution of secondary education graduates as intake in higher education (AY 2011–2012)



Source: *Statistics on Filipino Women and Men's Education*. <http://www.pcw.gov.ph/statistics/201405/statistics-filipino-women-and-mens-education>.

The K-12 Educational Reform

The Basic Education Sector Reform Agenda (2005–2010), which was DepEd's banner programme, aimed to reform basic education in order to meet Education for All (EFA) goals by 2015. In 2011, DepEd started with the implementation of the K-12 reform programme. In May 2013, the K-12 programme law, the Enhanced Basic Education Act of 2013, was enacted for the implementation of this basic education reform programme in all public and private schools in the Philippines. The K-12 programme is an important attempt to improve the quality of education and improve literacy and the quality of graduates. The law, considered a milestone in Philippine education, is expected to equip the nation and Filipino students with a globally competitive education system and for high school graduates to be better prepared for work and the professions. It also mandates compulsory basic education that covers one year of kindergarten, six years of elementary, four years of junior high and two years of senior high school. It was started in school year 2012–2013 and is set for full implementation by 2016.

The Current University Admission System

This country report consolidates the data and information on the overarching research questions of the ERI-Net 2013 study on transition from secondary to tertiary education.

In particular, this section provides a summary of the current admission systems in the country based on the 73 HEIs surveyed. A brief history of university admission mechanisms as well as the roles and responsibilities of stakeholders is looked at. The admission criteria, procedures and trends in admission policies are also explored to provide a more comprehensive picture of how the Philippine universities select local and foreign students and how policies are implemented.

History of University Admission Mechanisms

In the Philippines, one of the earliest standardized admissions tests for high school students' entry to college was the National College Entrance Examination (NCEE) which was established on 25 November 1975 (www.docstoc.com) pursuant to Presidential Decree (PD) number 146. Prior to the administration of the NCEE, the government examinations that were implemented were designed for those who earned their degrees (e.g. Professional Examination for Teachers). The purpose of the NCEE centered on maintaining the highest quality of education for purposes of national development (www.lawphil.net). In addition, the examination was designed to measure and assess the scholastic aptitudes of college-bound students. However, besides the NCEE, the HEIs administered aptitude tests for those who were admitted. Among the tests given were intelligence tests, aptitude measures, interest scales and personality tests. A number of universities, however, continued to give their own entrance examinations in addition to requiring the submission of NCEE results of applicants.

In 1994, the NCEE was repealed by virtue of the Republic Act 7731 (www.chanrobles.com) emphasizing that no national entrance examinations were required for entry to post-secondary programmes. The purpose for removing the examination was to give all high school graduates the opportunity to enter college and have a chance of a better career. Instead, the National Career Assessment Examination (NCAE) was put in place because of its responsiveness to deal with changing career patterns. It was also considered less discriminatory.

To date, the NCAE serves and provides information for high school guidance counsellors with regard to career exploring paths and counselling. However, HEIs were given autonomy in setting their standards in selecting the students they will admit. Most HEIs have their own admissions examinations. In addition, they are given the liberty to craft their selection policies and to provide additional assessment tools that they deem necessary to select their students. The DepEd's NCAE is used as the base for the students' high school guidance counsellor for planning college courses and institutions where the students are most likely to enroll. However, Philippine HEIs assume that its use has been exhausted in high school and that achievement and aptitude tests have to be administered for better career assessment and development among their entry applicants.

Roles and Responsibilities of Stakeholders

In the Philippines, the Commission on Higher Education leads in providing the basic structure in course programming and admission standards among higher education institutions. However, the tripartite functions of the Department of Education, Commission on Higher Education and the Technical Education and Skills Development Authority allow them to individually set policies for competencies, certifications and standards, based on their own mandates, for compliance of institutions delivering post-secondary training.

Admission Criteria and Procedures

Of the 55 HEIs who responded to the survey, 22 public HEIs and 33 private HEIs provide a comprehensive picture of how students are selected into institutions of higher learning. In general, the HEIs have policies specific to high school graduates, transferees from other schools and foreign students. However, there are varied procedures in accepting the students.

The students that the HEIs cater to are new graduates of secondary schools (Grade 10), transferees from other HEIs, and foreign students. There are different requirements per student type, with foreign students having to fulfil and submit more documents than the high school graduates and the local transferees.

To provide a more comprehensive discussion of what HEIs require, the admission criteria, relevant documents and other requirements were grouped into four categories: cognitive-related requirements which include tests, grades and performance in other achievement or aptitude-related measurements; non-cognitive measures which cover good moral character certification, recommendations from teachers and personal history statements; identity-verification-related documents which focus on the submission of birth certificates, police clearance, passports and other requirements that provide evidence pertaining to the identity of the applicant; and lastly, other documents which include parents' income tax returns, medical certificates, and other related certifications.

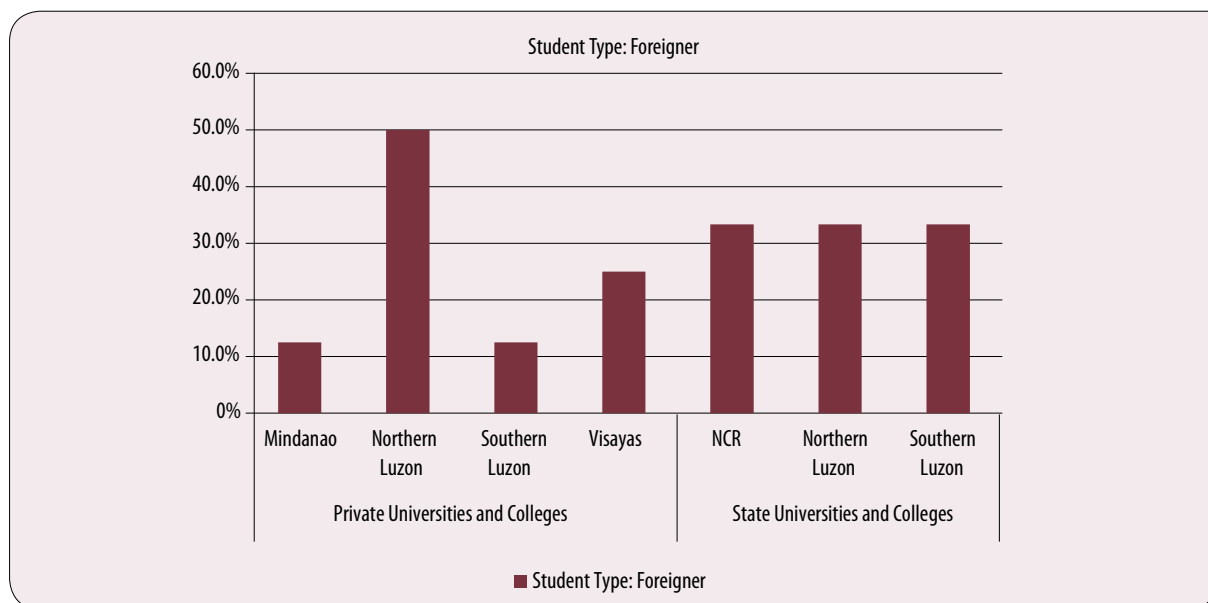
Cognitive-Related Criteria

The cognitive-related requirements included documents that would attest that the student applicants' meet the competencies required to graduate from secondary education and are eligible to study in college. Three student types are presented: new high school graduates pertain to students who have finished their secondary education but have not yet been enrolled to any college; local transferees are those students who started some college education but decided to either stop for a while and continue in another HEIs or transfer immediately to a more preferred HEIs. Lastly, foreign students who are graduates of secondary education in another country and do not have any Filipino-affinity, constitute the third student type.

In general, the student-applicants' measures of cognitive readiness include their high school diploma which is a common requirement for all student types. Being a cognitive measure, the diploma represents what the students were able to accomplish in relation to learning competencies, standard skills required of high school graduates and their academic awards, if applicable.

For the foreign students, higher education institutions require TOEFL (Test of English as a Foreign Language) certification and GCE and/or SAT scores aside from their secondary education certification of grades. Figures 2 and 3 present the percentages of HEIs requiring these documents from foreign students. From the data it can be surmised that most private colleges and universities from Northern Luzon (50 per cent) require students to have a TOEFL certification while 10 per cent of the private colleges and universities in the Mindanao region and Southern Luzon see the TOEFL score as an important criteria for admission.

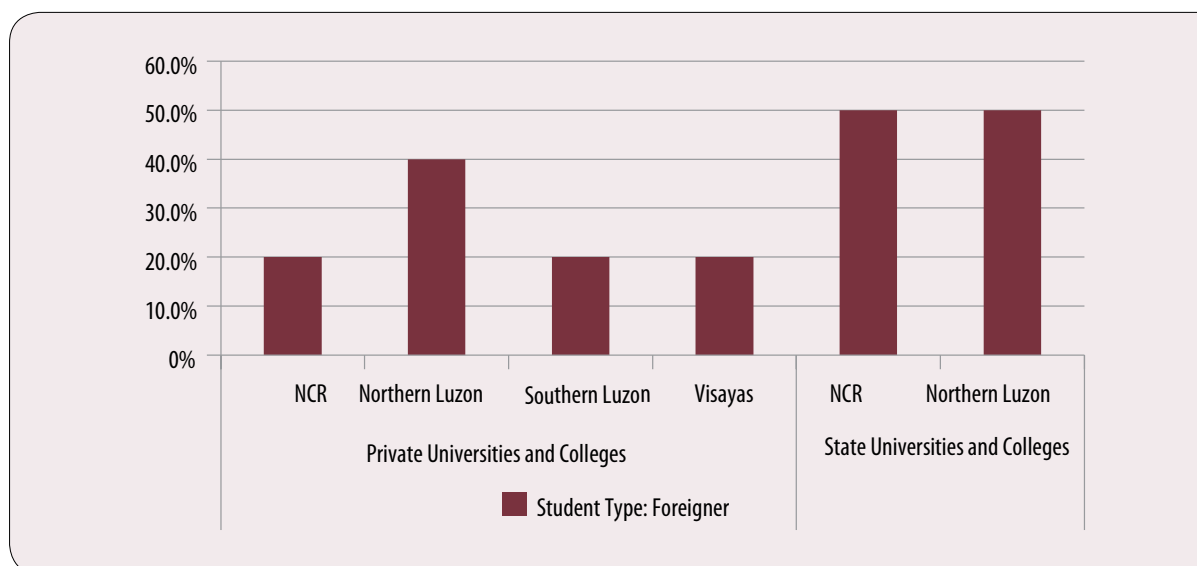
Figure 2: TOEFL requirements for foreign students applying in HEIs



Source: Data from the responses of the private universities and state universities and colleges in the Philippines (2013).

Private institutions from Northern Luzon (50 per cent) prefer that their foreign student applicants are TOEFL certified. This relatively big proportion of private HEIs suggests a move towards internationalization and concerns on how adept student applicants are in terms of communicating and comprehending using the English language. On the other hand, private institutions from the National Capital Region (NCR) and state universities and colleges in Northern and Southern Luzon all have the same requirements when it comes to language certification (33.33 per cent).

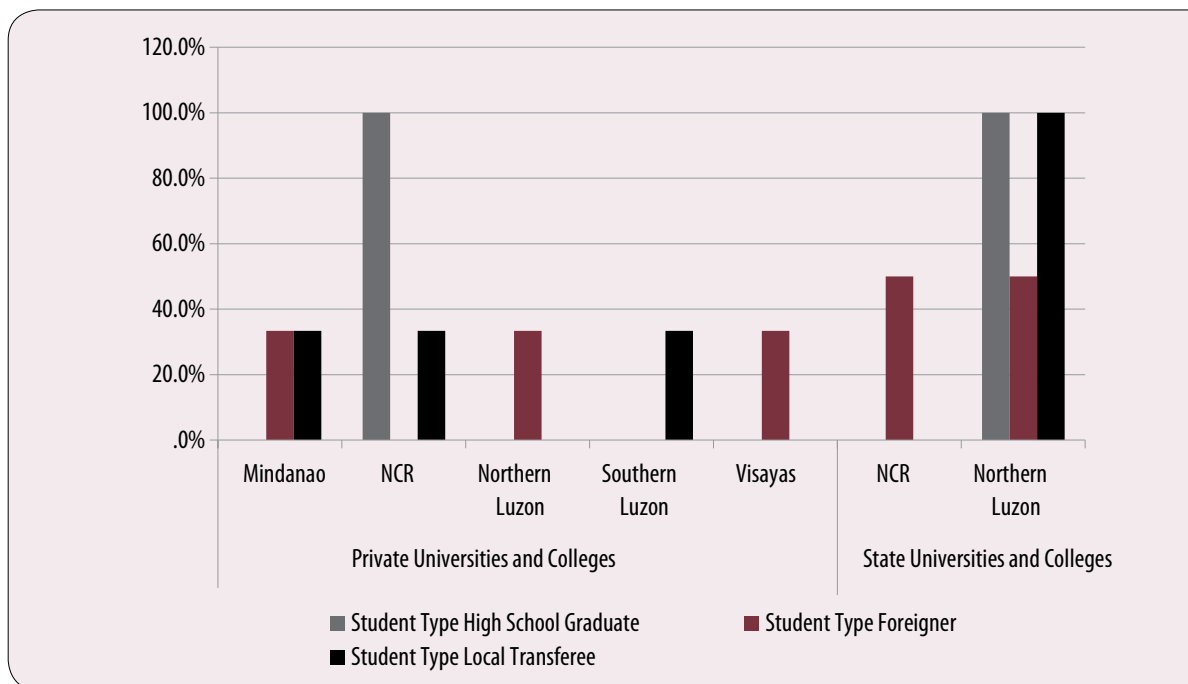
Figure 3: GCE or SAT requirements for foreign students applying in HEIs



Source: Data from the responses of the private universities and state universities and colleges in the Philippines (2013).

For universities and colleges in NCR and Northern Luzon, 50 per cent require foreign students to submit the results of their Scholastic Aptitude Test (SAT) or General Certificate of Education (GCE). The students' performance in the tests account for their readiness in pursuing a college education in the Philippines and the opportunities for success in their academic activities. Since Philippine educational institutions are integrating outcomes-based education where success is equated to performance of tasks related to an integral competency, focus on standardized measures are imperative.

Figure 4: Requirements of HEIs for high school diploma



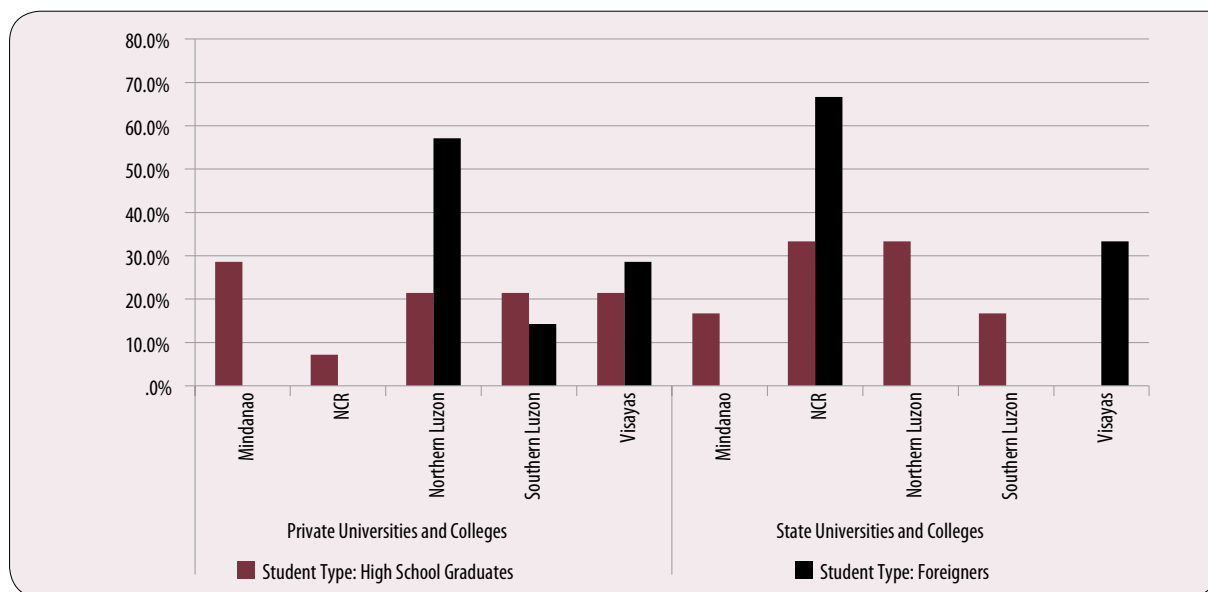
Source: Data from the responses of the private universities and state universities and colleges in the Philippines (2013).

Of the criteria that are given importance among all college applicants (Figure 4), much weight is given to high school diplomas, certificate of candidacy for graduation (if application is before graduation), grades during the terminal year in secondary education, and the general weighted average.

The high school diploma is an important reflection of the cognitive capability of the college applicant since it signifies attainment of the learning competencies required of high school graduates. The two documents provide evidence that the secondary school certifies that the high school graduate is eligible to enter college. Some HEIs in Northern Luzon have given priority to the diploma criterion while private universities in NCR share the same criterion-requirement with those of the state universities.

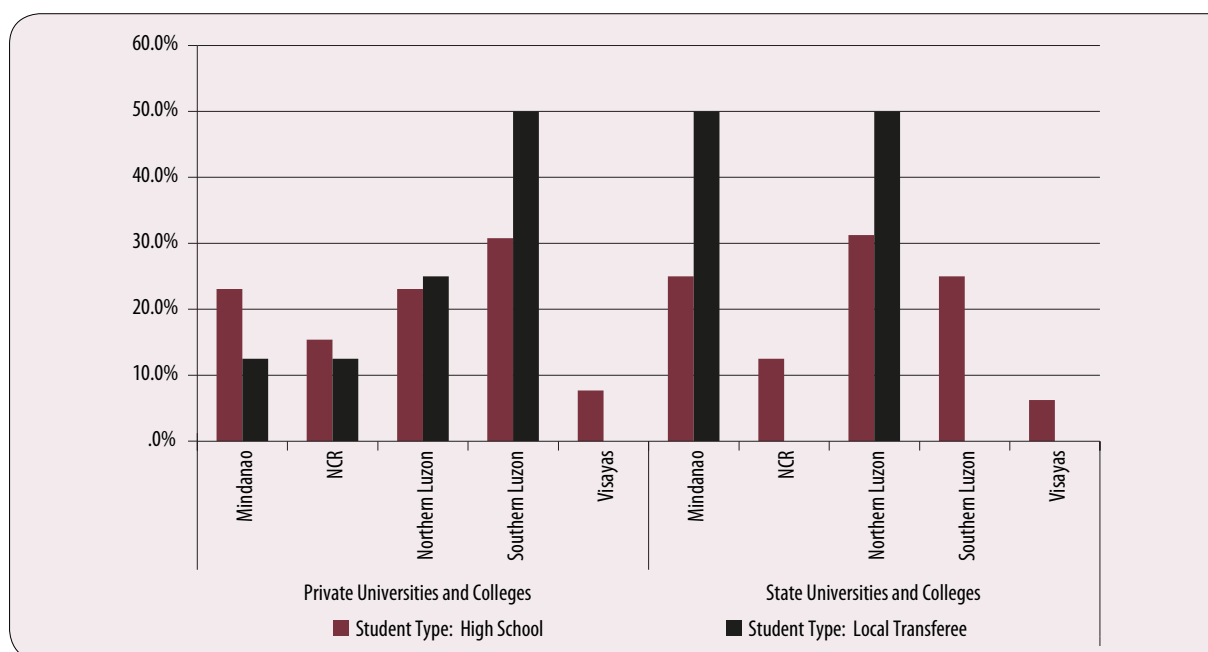
On the other hand, the grades as recorded in the secondary schools' report cards are considered sources of data for predictive validation of college performance.

Figure 5: Importance given by HEIs on general weighted average as a requirement for admission



Source: Data from the responses of the private universities and state universities and colleges in the Philippines (2013).

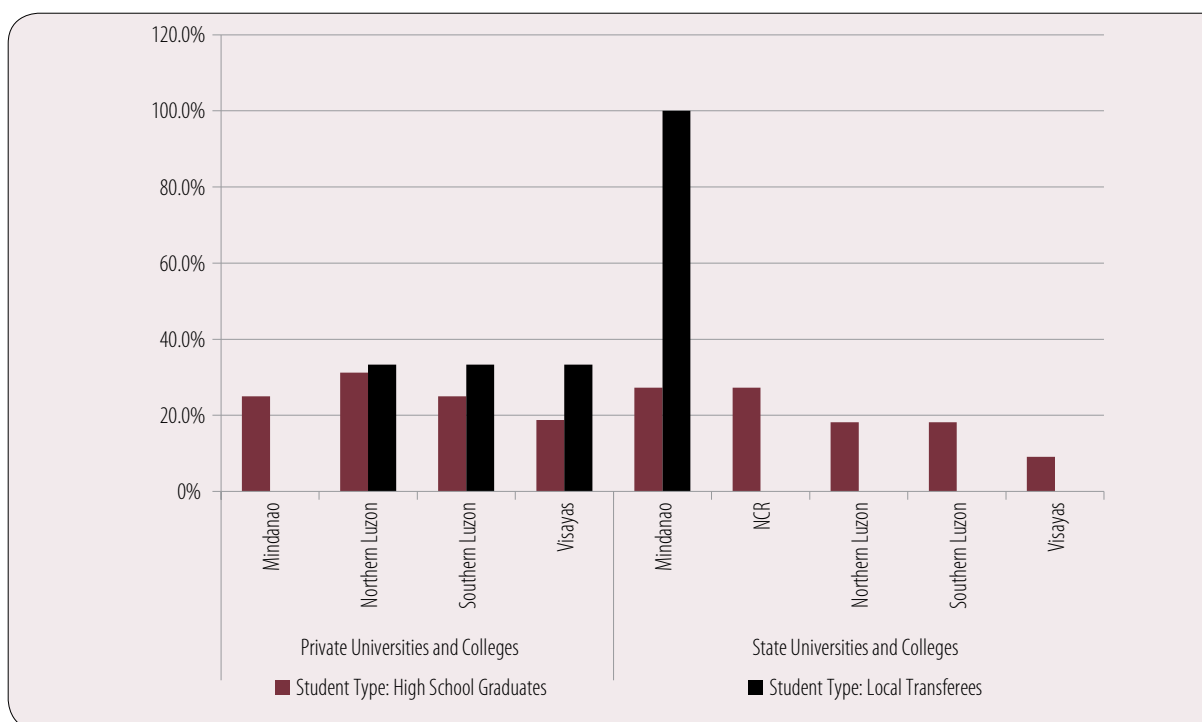
Figure 6: Importance given by HEIs on high school report card as a requirement for admission



Source: Data from the responses of the private universities and state universities and colleges in the Philippines (2013).

The high school report card (Figure 6) is deemed important by almost all the institutions. The private HEIs from Southern Luzon and state HEIs from Mindanao and Northern Luzon require it from local transferees. The general weighted average was also reported to be an important criterion for college admission, with institutions setting grade cut-offs specific to the state universities and colleges where college education is subsidized by the government. The general weighted average (GWA) is also considered for subscribed and undersubscribed courses where higher grades are required for the subscribed courses while admission to the undersubscribed courses is generally flexible.

Figure 7: Importance given by HEIs on entrance examination as a requirement for admission



Source: Data from the responses of the private universities and state universities and colleges in the Philippines (2013)

Moreover, an important cognitive measure to admission to colleges and universities is the entrance examination taken by students (Figure 7). The premiere universities in the Philippines filter qualified students using varied, university-made standardized entrance examinations and by subscribing to the services of the Center for Educational Measurement.

Student Selection: Adherence to Grade Requirements

On data gathered from the round-table discussion (RTD) there was consensus that SUCs select students based on their general weighted average (GPA) from high schools. Some universities and colleges give priority to high school grades in science, mathematics and English since these are areas that are deemed to be predictors of success in the first two years of college. The cut-off grades are determined by each higher education institution. In addition, the GPAs are considered in the various degree programmes applied for in college, with lower GPA and lenient requirements for unsubscribed courses and higher grades and steeper requirements for subscribed courses.

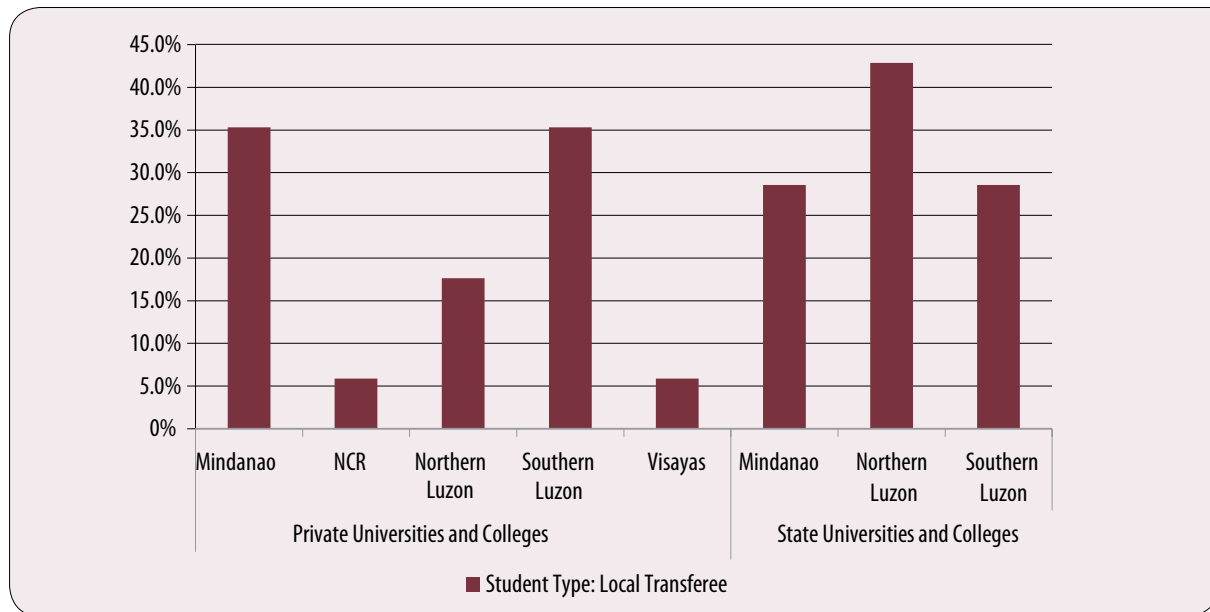
The RTD likewise revealed that another area of consideration is student performance in the college entrance examinations covering various areas of aptitude – from general information to the three primary subjects, mathematics, science and English. As often practiced, the scheme for identifying students in admission to universities is norm-referenced based on the students' entrance examination. On the other hand, there are other forms of selection schemes that were reported which include grades of students in performance tests such as interviews and demonstration of talent for the arts, music and sports-related courses.

Non-Cognitive Criteria

Non-cognitive measures are considered by HEIs. However, cognitive measurements are given more weight in deciding whom to accept. Based on the website survey, the most common forms of non-cognitive measures are the certificate of honourable dismissal, certificate of good moral character,

recommendation letter from teachers, alternative learning system certification, and personal history statements made by the applicants.

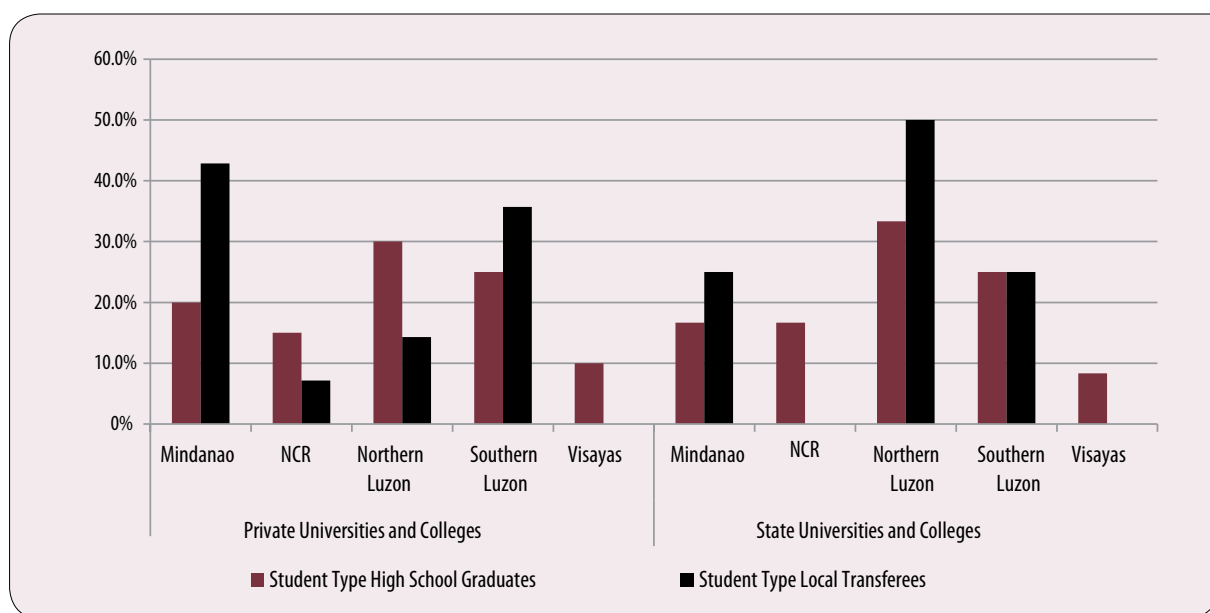
Figure 8: Importance given to the certificate of honorable dismissal among local transferees



Source: Data from the responses of the private universities and state universities and colleges in the Philippines (2013).

The certificate of honourable dismissal (Figure 8) is a basic requirement for local transferees. The certification provides evidence that the student-applicant is a person who had not been involved in any misdemeanours and actions that are against school policies. This certification is an important criterion for admission especially among private universities and colleges in Mindanao (35 per cent) and Southern Luzon (35 per cent). While state colleges and universities located in Mindanao (30 per cent), Northern Luzon (45 per cent) and Southern Luzon (30 per cent) also give importance to the certification.

Figure 9: Importance given to the certificate of good moral character to admissions in HEIs

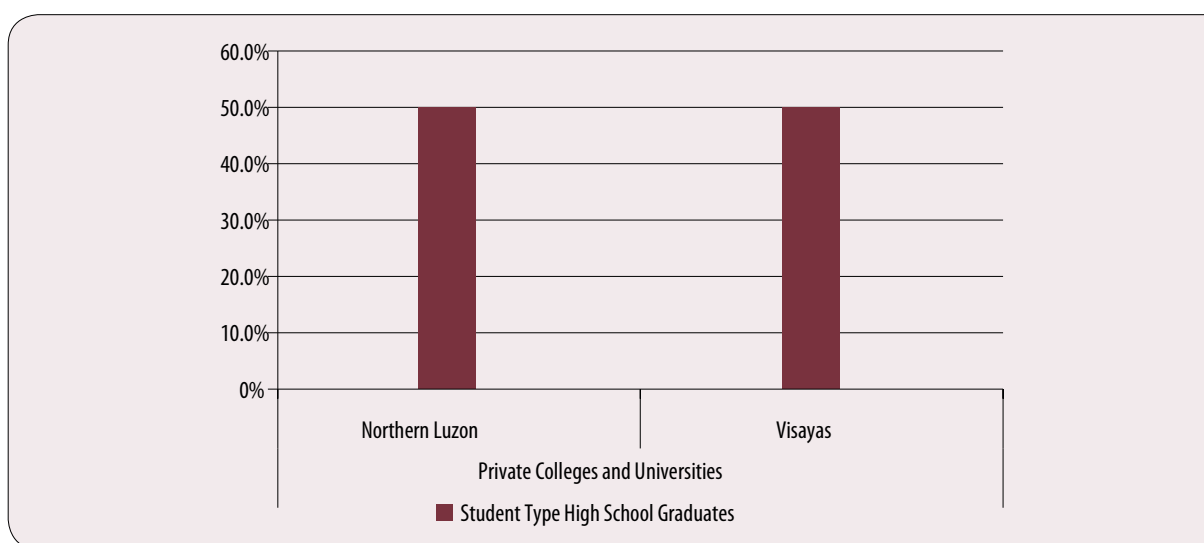


Source: Data from the responses of the private universities and state universities and colleges in the Philippines (2013).

An equally important criterion is the certificate of good moral character (Figure 9), which is required across almost all the HEIs, especially private universities and colleges in Mindanao and Northern and Southern Luzon. State universities and colleges who require this certification are also those from Mindanao, Northern and Southern Luzon. The certification implies that the college applicant is a person of good character based on the standards set by the secondary school. The certification reflects that the student has values and a moral grounding fit for higher learning.

There are private institutions from the Visayas and Northern Luzon requiring that people of good character vouch for the college applicant’s identity (Figure 10). The letter, described by some admission officers interviewed for this survey, includes how the applicant performed during high school and how emotionally fit the applicant is with regard to handling college-related tasks.

Figure 10: Importance given to letters of recommendation



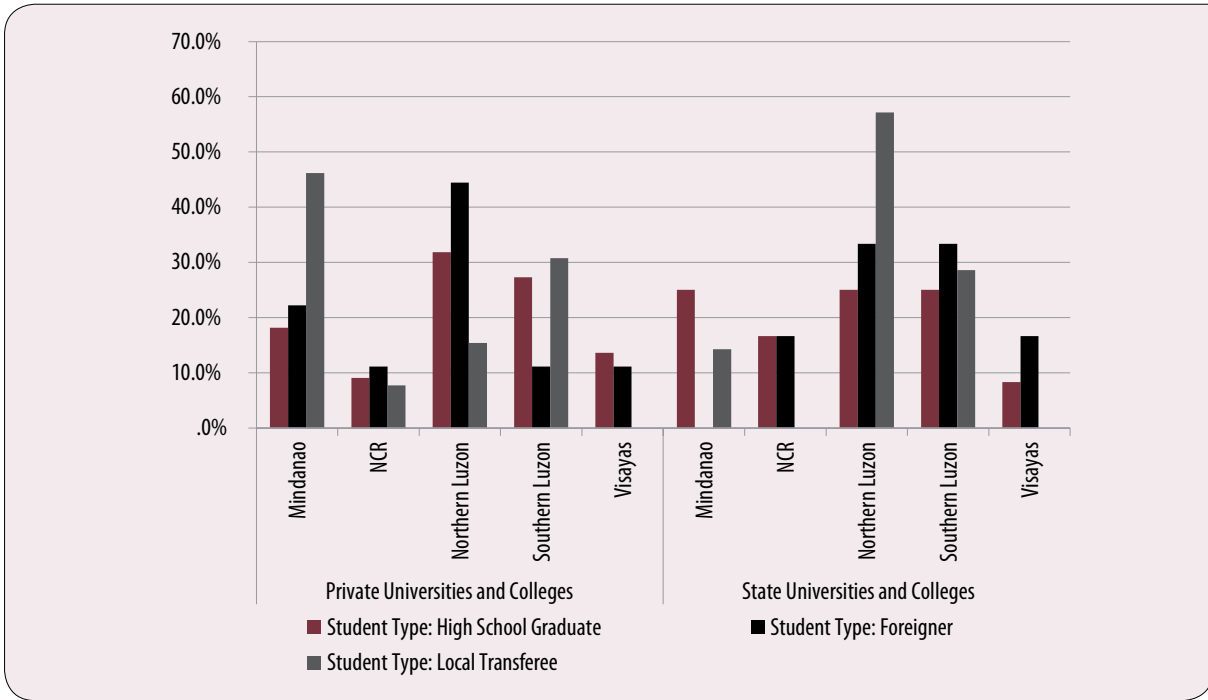
Source: Data from the responses of the private universities and state universities and colleges in the Philippines (2013).

Identity-Verification Documents

The identity-verification related documents pertain to evidence that supports the veracity of the applicants’ claims. For foreign students these include the student visa, alien certificate of registration, police clearance and copy of the passport. For new high school graduates and local transferees, the document is their birth certificate. All student types are required to submit photographs of varying sizes (1 x 1, 2 x 2, inches, passport size).

The easiest process in confirming the applicants’ identity is through his or her photograph (Figure 11). Almost all the institutions require students to submit their photograph together with their documents. A higher percentage of HEIs categorized under SUCs require the submission of photographs compared to private universities and colleges.

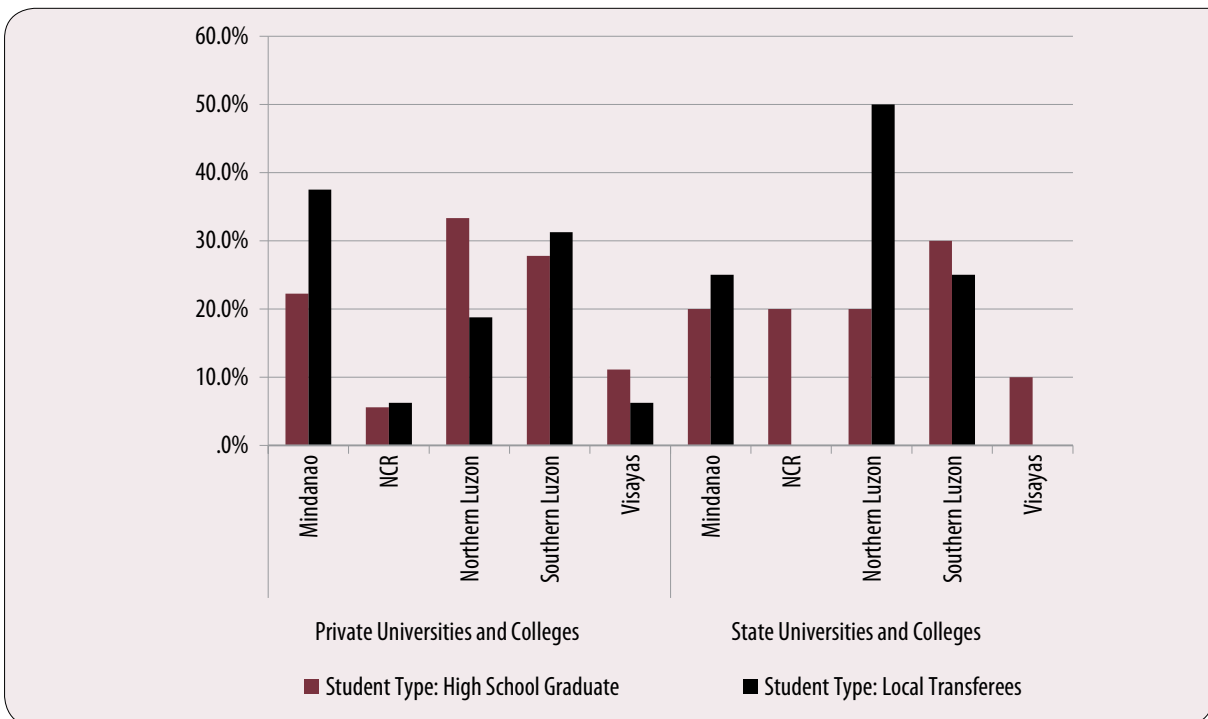
Figure 11: Percentage of institutions requiring applicants to submit photographs



Source: Data from the responses of the private universities and state universities and colleges in the Philippines (2013).

Another primary requirement for admission to colleges and universities in the Philippines is a birth certificate (Figure 12) that authenticates the records that come with the admission requirements (e.g. report cards and diploma). The birth certificate also serves as baseline data for the applicants' background in terms of ethnicity, birth date and parents' background.

Figure 12: Importance given by HEIs to birth certificate as proof of identity

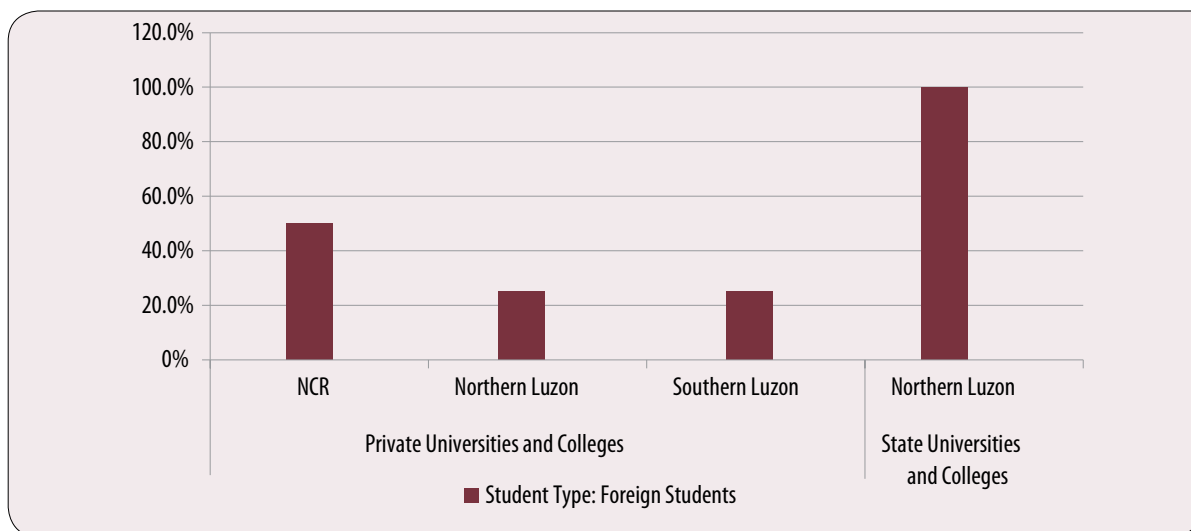


Source: Data from the responses of the private universities and state universities and colleges in the Philippines (2013)

For foreign students (Figures 13–14) , four main requirements are necessary: the police clearance that would account for any violations of the law while in the Philippines, the student visa, the alien certificate of registration, and a copy of their passport. Admission criteria would rest on the premise that the documents submitted are verifiable and were honestly reported.

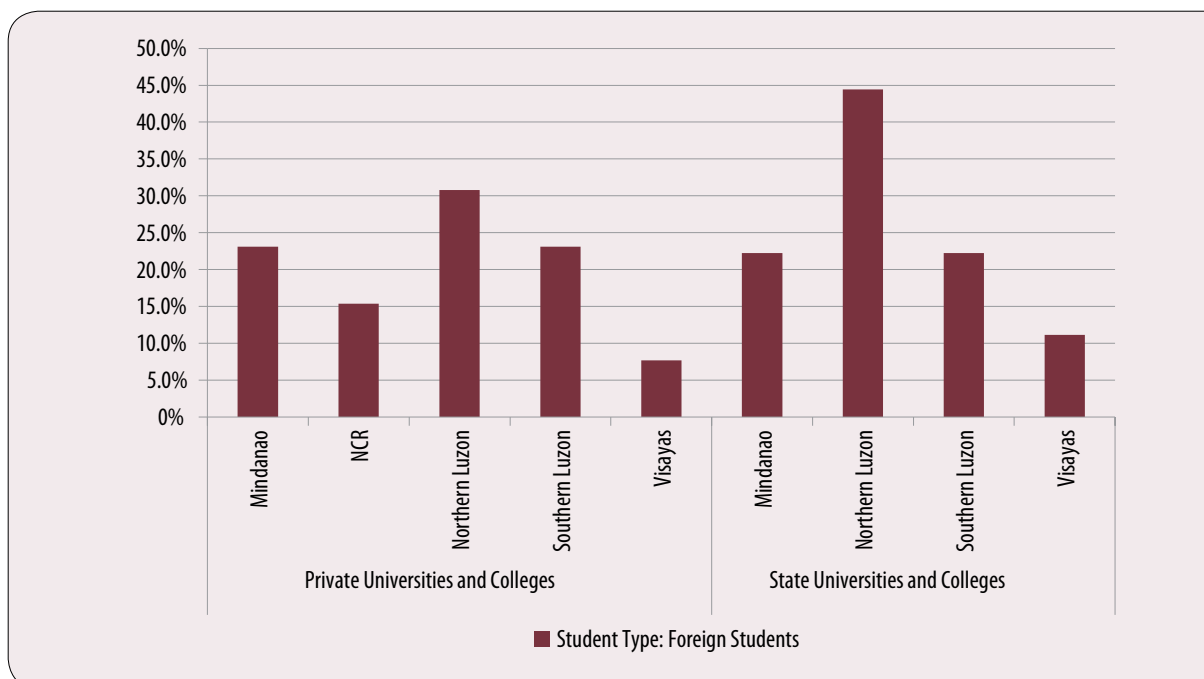
Submitting copies of applicants’ passports is an important requirement for Northern Luzon institutions; while the Alien Certificate of Registration is important among Northern Luzon State Universities and Colleges.

Figure 13: Importance given to copy of passport of foreign students



Source: Data from the responses of the private universities and state universities and colleges in the Philippines (2013).

Figure 14: Importance given to the submission of ACR among HEIs

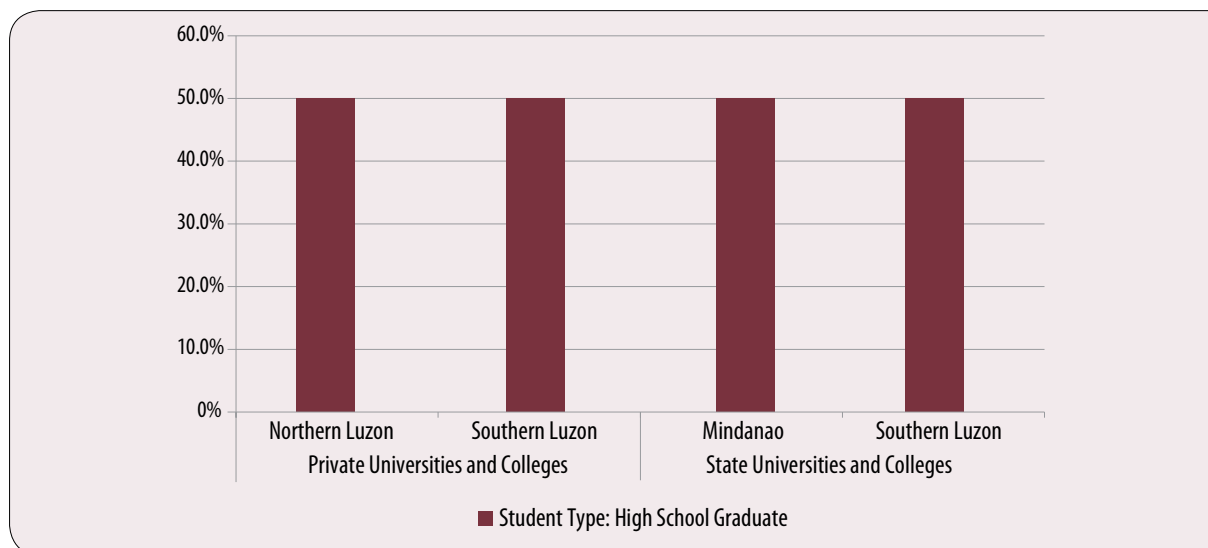


Source: Data from the responses of the private universities and state universities and colleges in the Philippines (2013).

Other Criteria

Other criteria examined by HEIs in the Philippines include parents' income tax return (Figure 15) which is equally important among private institutions in Northern Luzon, Southern Luzon, and Mindanao. This enables the institutions to decide on scholarships and socialized systems for charging tuition fees.

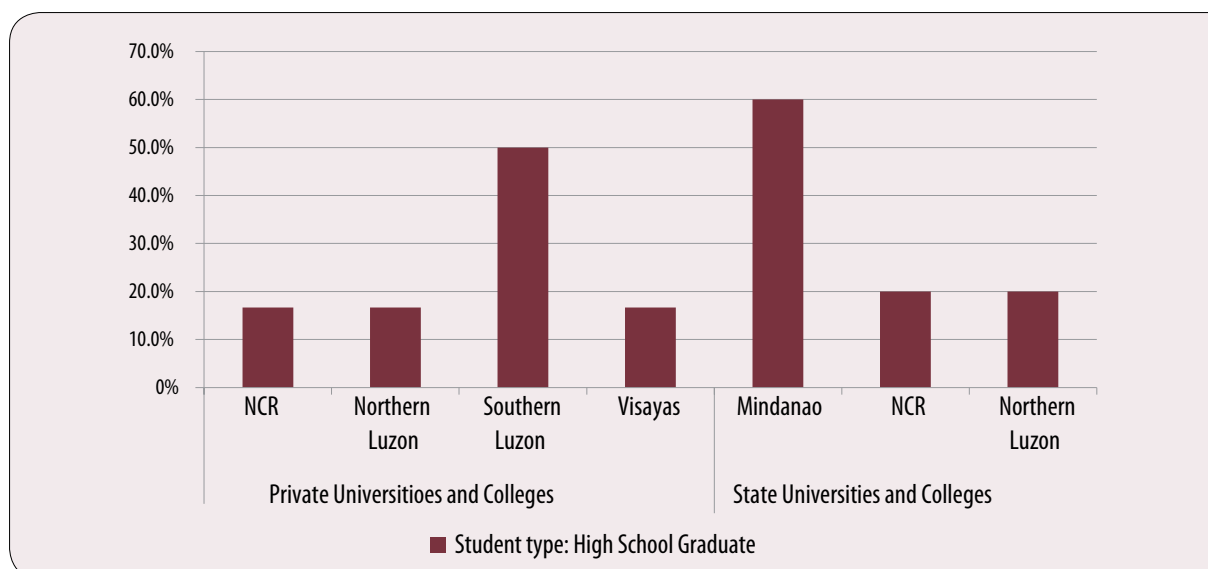
Figure 15: Importance given to providing the income tax return of parents



Source: Data from the responses of the private universities and state universities and colleges in the Philippines (2013).

Where the students' health is important, some HEIs require their applicants to go through a medical examination (Figure 16) to single out diseases and predisposed illnesses that might be triggered if exposed to the pressures of college life. Other HEIs, however, require a medical examination after the college applicant had undergone the first processes of screening (e.g. passed the entrance examination).

Figure 16: Importance given to medical clearances prior to admission



Source: Data from the responses of the private universities and state universities and colleges in the Philippines (2013).

What Is Important?

A majority of the HEIs require students to pass their entrance examination before admitting them to the institution. Tests are often aptitude or achievement examinations covering verbal, numerical and abstract concepts. From the data, SUCs in Mindanao often administer entrance examinations to local transferees compared to other SUCs. However, private institutions in Mindanao often do not give tests to transferees. Most private HEIs in Northern Luzon, Southern Luzon and the Visayas opt to give qualifying examinations to transferees.

In addition, admission to college for foreign students also requires a certain general weighted average. This policy may have been implemented to set controls for subscribed courses (more popular e.g. engineering, medicine, business) and to boost undersubscribed courses (less popular e.g. agriculture, fisheries, marine biology) especially when they are related to the institutions' geographic location. Foreign students choosing to study in Northern Luzon, the National Capital Region (NCR) and the Visayas are required to reach a grade point average to be accepted, as required by the programme applied for.

The Process

Preparations for college admissions in the Philippines start as early as June for those in the terminal year of secondary schooling. The Philippines' premiere university, University of the Philippines is usually the first among universities in the country to administer its college entrance examination in August of every year. Guidance services such as placement, career talks and school visits are common among graduating fourth year high school students which will be followed by applications for college entrance examinations. In general, HEIs have varying processes in accepting applicants and they have been given the liberty to set their standards in consideration of their accreditation status and performance in the licensure examinations. Students are given the freedom to take examinations and choose their preferred colleges.

Trends in Admission Policies

Admission policies are undergoing transition because the K-12 programme will be fully implemented by 2016. For example, the University of the Philippines is studying the possibility of moving its academic year to August to align it with the ASEAN integration policy. Likewise, the National Network of Normal Schools, a consortium of teacher education universities led by the Philippine Normal University is studying the provision of a transition curriculum in 2014. It would be equivalent to senior high school level and a requirement for implementing an enriched bachelor's programme aligned with the requirements of most ASEAN countries. These initiatives suggest that admission policies will have to be modified to ensure that students will be able to cope with the higher demands of these emerging college curricula.

Various efforts are being undertaken by CHED and the Philippine Regulation Commission (PRC) to ensure that the professionals produced by HEIs meet global standards in various disciplines. For example, the Technical Panels of CHED are developing new curricular programmes that level up to the demands of the professions. Likewise, PRC together with professional organizations are defining the performance standards required for global comparability and acceptance. All these efforts suggest a new demand for reviewing the current admission policies of HEIs.

The Impact of Tertiary Admission Policies on Secondary Education and Society

Participants from the secondary institutions in the round-table discussion held in September 2013 perceived the admission requirements to tertiary institutions as highly cognitive. Guidance counsellors who participated in the discussion claim that students have to undergo tedious screening procedures such as submission of paper requirements, grades, entrance examination scores and an interview to be able to gain admission to the course of their choice.

On the other hand, secondary schools integrate skills into the teaching of core academic subjects to help prepare students for tertiary education. Within the context of core knowledge and instruction, students learn the essential skills such as critical thinking, problem solving, communication and collaboration, also known as 21st century skills (<http://atc21s.org/index.php/about/what-are-21st-century-skills/>). With this goal in mind, schools build on the necessary support systems-standards, assessment, curriculum and instruction, professional development and learning environment to enable students to engage in the learning process and graduate as better prepared students.

Some parents enroll their children to review classes given by private tutorials to ensure their preparedness to pass college examinations. There is an increasing amount of private tutoring which aims primarily to give remedial help to students.

Activities outside of school that mimic (shadow) activities performed in school such as, private tutoring (for profit), and test preparation services are also called shadow education (http://sitemaker.umich.edu/finalli.356/shadow_education). Parents' subscription to shadow education may be partly driven by the belief that extra lessons are essential for academic success. The popularity among parents to send their children to private tutors and tutorial schools is understandable because they emphasize the value of education – success in school means more success in life.

Another factor that contributes to the use of shadow education is the economic rewards that come with doing well in examinations. For example, students who do well in these tests will possibly be given scholarship/s or will have a better chance of being enrolled in a reputable university or college. While there have not been many studies that directly measure the effects of shadow education on students, this practice according to a report (ADB, 2012) may affect family budgets, children's time and national education systems.

Capitalizing on the Scholarships Available in Tertiary Education

In line with Article XIV of the Philippine Constitution, CHED is mandated to protect the rights of citizens by making quality education accessible to all. To do so, CHED maintains scholarship, grant-in-aid and loan programmes to provide opportunities for a college education. This is part of the country's response to create and develop its citizens. There are programmes that provide scholarships to poor high school students and children of military and rebel returnees, among others. Scholars have various privileges like receiving financial support for full scholarships per academic year, whether they attend public or private HEIs.

This benevolence attempts to balance and provide incentives to encourage disadvantaged students to consider studying in high quality HEIs. The programme also attempts to improve disadvantaged families' access to information about schools and allow them to make informed choices on career options.

Data from the RTD indicate that in general, SUCs do respond to the call of government to provide more avenues for students to get into college. One of the identified concerns of the secondary school

counsellors who participated in the RTD is getting scholarships for their students. As the economic crisis takes its toll, getting a tertiary education is even more difficult than before. It may be noted that students who have taken the admission tests still need to take a separate test for scholarships.

There are two types of student scholarships that were identified in the RTD by the government-funded institutions: the public/government and the private scholarships. Scholarships provided for merit often consider grade requirements. Scholarships as financial grants are likewise provided using grade requirements but with considerations for the socio-economic status of the student. Generally, the grants cover tuition fees, stipends and book allowances. However, other requirements for private scholarships are stipulated by the benefactors.

The SUCs, likewise, are mindful of the national government's goal of producing high quality graduates who must be globally competitive in view of the challenges of ASEAN community integration in 2015. Thus, policy changes were suggested by the SUCs as well as their local counterparts to standardize the selection criteria for all government funded educational institutions to ensure a wider, coherent and systematic procedure in accepting students to higher education.

It may be noted that with the creation of HEIs funded by LGUs, a mechanism of support for decentralization/local autonomy ensures attention for the disadvantaged sectors in society, particularly students and schools. Such schemes for decentralization and local autonomy allow LGUs to have their own selection procedures for accepting students and in using their own funds for supporting the local HEIs and their students. The RTD revealed that the LGU institutions which offer scholarships, prioritize and accept students who are residents of the area where the institution is located and operating.

In addition to the universities' scholarship support, there is a bigger government programme that provides access to tertiary education. As a strategy for reaching out to disadvantaged sectors of Philippine society, a scholarship programme for indigent but deserving students under the government's Students' Grants-in-Aid Programme for Poverty Reduction (SGP-PA) is being implemented by CHED in collaboration with the Department of Social Welfare and Development (DSWD), the Department of Labor and Employment (DOLE) and the public HEIs. The programme aims to provide college scholarship grants to some 4,026 eligible Pantawid Pamilyang Pilipino [Ensuring a Better Life] Programme beneficiaries in the country. The primary objectives of the programme are to ensure that the grantees are enrolled in selected public HEIs duly recognized by CHED, channeled to CHED priority courses and, be extended support that will guarantee completion of their studies. Such a mechanism will allow future graduates to have an opportunity to become productive members of society. Also, the SGP-PA aims to contribute to an increase in the number of enrolments from poor households in higher education, in line with the national government's priority degree programmes, and support their entry to labour markets through placement assistance.

Cognizant to this, secondary schools conduct career fair activities for their high school students as part of their career guidance programme. A career guidance programme usually offers several activities that aim to raise student awareness about the different career options that best suit their interests and capacities. This programme brings the private sector, school students and their parents together. A mini career guidance session provides an opportunity for student interaction with professionals from different sectors according to their interest.

Observations

In general, admission requirements for entering HEIs are highly cognitive-related. Although non-cognitive measures and identity related documents are also considered for entry to the tertiary level, premium is placed by the HEIs on the cognitive-related requirements. These cognitive measures represent what a student has acquired in terms of learning competencies and also their potential for academic work. The assumption is that a minimum level of cognitive skills should be acquired by a student to cope with the challenges of university life.

The process of selection in HEIs is highly competitive. Since HEIs emphasize cognitive related measures, students intending to go to college or university are compelled to prepare in varied ways. Often, secondary schools implement on their own review sessions, career fairs, dissemination of information and other means of preparation.

Initiatives for reform: focus on non-cognitive skills and increased priorities for the marginalized

Areas in providing means of access to education emphasize a wider access to education paved the way for assessment of non-cognitive skills such as performances in the arts and the sports. However, the institutions in the RTD admitted that their current state of student assessment depends on the competency requirements for the courses. This is because non-cognitive skills are difficult to standardize and administer and there are limited tests and evaluation specialists.

With the same standard of assessment provided to students of marginalized backgrounds, the support of universities is provided to them through socialized school fees that translate into reduced tuition and other school fees or the full benefit of not paying any amount at all. Those who have difficulty in attending regular classes are offered alternative learning systems to serve as a bridging programme to adjust to the regular schedules of their classes. Lastly, programmes are developed for students to be mainstreamed or to get help in courses where they are having difficulties.

Ways Forward

As provided in the K-12 basic education reform law, there will be a national college preparedness examination that will measure the competencies of students coming from grade 12. This examination will ensure that those proceeding to college are equipped with the skills, competencies – both cognitive and non-cognitive – for meeting the challenges of higher education. Efforts are being undertaken by CHED for developing the national college preparedness examination which will be used in screening future college-bound students.

CHED is likewise preparing through technical panels in various disciplines the new curricular programmes for implementation in 2016. In consideration of these developments, the RTD for this study has foreseen that HEIs would most likely opt to consider any of the following:

1. their own college entrance examinations, or
2. a unified college entrance examination for all HEIs

The RTD participants also agreed that while there is a standard set of criteria for college admission, universities may be given leeway to have additional requirements based on the mission of the universities.

The prospects for HEIs in providing better opportunities for academic training of their incoming students. Moreover, the signals from the government and other stakeholders are clear in terms of directions and intentions to create a better future for the country and its citizens. The HEIs must be ready to put in place the appropriate strategies for transitioning high school students to higher education that are consistent with national aims and objectives.

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Annex: A

Table 1: Institutions (HEIs) in the Philippines and the sampling scheme for the web survey

| Geographical Areas Covered | Total No. of HEIs | No. of HEIs per Classification | | Comprehensive HEIs | Specialized HEIs | Sampling: % per Classification | Sample of HEIs per Classification | Prop. Comp. and Specialized HEIs |
|----------------------------|-------------------|--------------------------------|-------|--------------------|------------------|--------------------------------|-----------------------------------|----------------------------------|
| Northern Luzon | 387 | SUCs | 29 | 26 | 3 | 30% | 9 | |
| | | LGUs | 16 | 16 | - | 3% | 1 | |
| | | private | 342 | 315 | 27 | 3% | 10 | 5:5 |
| Southern Luzon | 397 | SUCs | 19 | 18 | 1 | 30% | 6 | |
| | | LGUs | 31 | 31 | - | 3% | 1 | |
| | | private | 347 | 340 | 7 | 3% | 10 | 5:5 |
| Visayas | 305 | SUCs | 26 | 25 | 1 | 30% | 9 | |
| | | LGUs | 30 | 30 | - | 3% | 1 | |
| | | private | 249 | 240 | 9 | 3% | 7 | 3:4 |
| Mindanao | 418 | SUCs | 28 | 26 | 2 | 30% | 9 | |
| | | LGUs | 38 | 38 | - | 3% | 1 | |
| | | private | 352 | 341 | 11 | 3% | 11 | 5:6 |
| NCR | 236 | SUCs | 8 | 6 | 2 | 30% | 2 | |
| | | *specialized HEIs | 3 | - | 3 | | 1 | |
| | | LGUs | 16 | 16 | - | 3% | 1 | |
| | | private | 209 | 154 | 55 | 3% | 6 | 3:3 |
| | 1,743 | | 1,743 | 1,622 | 121 | | 85 | |

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