

Comparative Education and Credential Assessment

Research note

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Summary

This note will be of interest to administrators and instructors in military and police academies or staff colleges seeking to benchmark their institutions against international standards. It considers the apparent growth of higher education in security, practices of educational comparison and credential assessment, and the implications for education of security professionals.

Background – growth in security education

The Global Security Education Project has identified more than 600 institutions of higher education for military and police leaders around the world. Using Bologna criteria for Bachelors and Masters education, we estimated in 2011 that fewer than 100 were degree-granting universities. We now believe that number to be much higher – perhaps as high as 350 and apparently growing every year. What accounts for the new perspective? We think we are seeing a combination of changing reality and better data.

Table 1 summarizes data on higher security education collected in the first two years of the GSEP and presented in 2011. Since 2011, we have come to believe that institutions in several regions shown in the table are significantly under-counted in this data, with China alone probably accounting for more than 70 military establishments with higher education functions, including specialised establishments like the Military Transportation University of the PLA, the Naval University of Engineering, and the Logistical Engineering University.

First, more institutions are accessible through open sources than was the case when the project started. Social networking sites like Facebook, Academia.edu, and Mendeley are starting to make the institutions more visible to an international audience than they were even a few years ago. Our use of the correlates of higher education (GDP and citable documents in particular) has focused our search on countries likely to be under-represented in our count, allowing us to find more institutions.

Second, many institutions are increasing the educational component in their programs. Some are making arrangements with local or foreign universities to offer academic content, while others are seeking accreditation for their own programs.

Third, the variety of different arrangements, particularly the many forms of cooperation with civilian universities, suggests higher education is more widespread in military and police academies and staff colleges than the institutional sites alone might suggest. Most of these institutions are not listed in common summaries of universities or colleges, such as the Association of Commonwealth Universities Yearbook.

Table 1 Data presented at ERGOMAS, 2011

| Region | States | M | Mu | G | Gu | P | Pu | Density |
|---------|--------|-----|-------|----|-----|-----|------|---------|
| ASS | 14 | 27 | 2/9 | 2 | 0 | 12 | 1/6 | 2.73 |
| BZ | 16 | 14 | 2/7 | 4 | 1/4 | 8 | 1/8 | 1.6 |
| CAF | 4 | 3 | 0 | 0 | 0/0 | 2 | 0 | 1.3 |
| EAS | 15 | 5 | 2/5 | 0 | 0/0 | 6 | 0 | 0.73 |
| EUR | 37 | 75 | 26/75 | 7 | 0 | 37 | 5/37 | 2.03 |
| HNP | 6 | 5 | 1/5 | 0 | 0/0 | 4 | 0 | 1.5 |
| MEA | 18 | 40 | 3/40 | 5 | 0 | 19 | 1/19 | 3.56 |
| NAM | 23 | 45 | 2/9 | 4 | 0 | 25 | 0 | 3.22 |
| PSO | 14 | 30 | 7/30 | 6 | 5/6 | 15 | 2/15 | 3.65 |
| SAF | 14 | 17 | 2/17 | 1 | 0 | 17 | 0 | 2.33 |
| SAM | 13 | 38 | 2/19 | 9 | 0 | 9 | 1/9 | 3.11 |
| SAS | 5 | 22 | 3/22 | 1 | 0 | 5 | 0 | 5.6 |
| WAP | 13 | 14 | 1/14 | 5 | 0 | 7 | 0 | 2.0 |
| medians | 14 | 22 | | 4 | | 9 | | 2.33 |
| totals | 192 | 335 | 69u | 44 | 6u | 166 | 12 | |
| percent | | | 20% | | 13% | | 7% | |

Data compiled by David Last, Maxime Langlois, David Emelifeonwu, 2011. M-military; Mu-military (university-like); G-gendarme or paramilitary, including ministry of the interior; P-police; density – total institutions per state in the region. Regions as defined in Buzan and Waever (2003).

A fourth possibility is that higher security education is part of a general trend towards more higher education in general (Windolf, 1992). Windolf cites three explanations for increasing higher education: human capital; status competition; and the political theory of educational expansion.

The human capital theory suggests that university education expands to meet the demands of increasingly sophisticated economies; there is a direct relationship between economic growth and the need for skilled labour, so universities expand to meet this need. In the case of military and police education, we can see clear influence of technological and operational imperatives.

However, educational expansion in general doesn't seem to follow business cycles, so an alternative explanation is that higher education represents competition for higher status. Windolf points out that an "iron law" of educational research is that children of university-educated people are more likely to go to university, so the expansion is self-perpetuating, and reinforced by perceptions of status. This also is a visible phenomenon amongst military and police leaders, though more by anecdote than statistical evidence. Status competition is frequently cited as a reason for seeking university credentials.

Human capital and status competition explanations are compatible, and perhaps mutually reinforcing, but they may produce sub-optimal outcomes. If more education is always better, and enhances both the university as an institution and the opportunities of the individual, then there may emerge a chronic oversupply of university graduates in the job market. This is not explicitly a problem for military and police education, which exists in a *dirigiste* economy, but there are arguments within the security professions about how much education is necessary, and the relative education, training, and experience.

The political theory of educational expansion is based on competition between social groups, which enlist schools, colleges and universities as gatekeepers to preserve a monopoly of power. Education imparts not only technical and cultural knowledge, but also specific credentials that qualify individuals for membership in elites, employment in state bureaucracies, and control over decision-making. The establishment and staffing of universities and institutions of higher education is therefore an important strategic decision in many countries, and particular schools, courses, university programs, or patterns of education may be more important for the doors they open than the knowledge they confer (De Fraja and Iossa, 2002).

The broader social and economic forces Windolf discusses are not completely applicable to higher education in security. Nor are the forces of internationalization of labour, labour mobility, and globalized markets for skills, except at the margins. There has always been a small international market for specialists moving between national armies and police forces, or serving in international organizations, but these represent a curiosity rather than a global trend – certainly not on the scale of the "Polish plumber" described in the European labour markets of the 1990s.

With this in mind, we wanted to explore the process of credential assessment and international comparison, with a view to using it to refine data on higher education for security, and explore the ways in which security education may be internationalizing.¹

¹ I am grateful for information and interviews provided by representatives of several organizations, particularly: ARUCC; OURA; OUAC; NARIC; UNESCO; David Pauwels, Credentials Assessor of the

There is a network of agencies and organizations involved in international credential assessment. Credential assessment is partly driven by perceived economic need, to support immigration and labour mobility, and it is partly demand-driven by those who want to have credentials evaluated and are prepared to pay for the service. Many of these organizations provide online resources, but validation of individual cases requires historical institutional knowledge often found only in specialized paper-based reference works. Most of the agencies recover costs or seek profit, so their online resources tend to be accessible by subscription or to organizations, rather than free to individuals. Paper resources are often available in reference libraries, but collections vary widely.

For our purposes, university equivalence is an indicator for higher educational content, critical thinking, and problem solving, which we think are significant determinants of the extent to which security establishments are prepared to develop solutions to emerging security challenges.

Academic evaluations and assessments

Academic evaluation can focus on institutions providing education, or on the students undertaking the education. When they focus on institutions, they often take the form of quality assurance processes or program reviews. For example, defence university programs in Singapore and Malaysia both observe ISO 9001 quality assurance processes to guide institutional development. The Colleges of Oxford, Cambridge, and the University of London, on the other hand, have long-established processes to maintain quality, and don't care much about ISO certification, except for some of their more recent and technical programs like IT security. Most university programs will go through a process of program review periodically to ensure that they meet accepted standards, and to improve the quality of the program.

Program reviews or institutional quality assurance processes (IQAP) will evaluate the range of courses offered, the coherence of programs, the qualifications and contribution to scholarship of professors, and the resources available at the institution. The desire to be seen as a quality institution is a significant motivation in the university community.

Evaluation of students or graduates is usually called credential assessment. There are two main approaches to credential assessment, based on its purpose. Input-based assessments tell us whether the quantity and type of the inputs to a program match those of other programs with which we are familiar. The number of years of study, credits based on contact hours, and general subject areas included in the curriculum are the types of information used for input-based assessment. Input-based assessment can't tell us much about the quality or even the content of the program. More detailed credit assessments for specific purposes (such as entry to a program or transfer credit equivalence) can approximate quality. These may include use of course descriptions, reading lists, and

professor qualifications, usually against the benchmark of the receiving institution, in the case of credit transfers.

Output-based assessments are concerned with the quality of the academic or professional qualification obtained. These are the norm for professional qualifications like law, engineering, medicine, and nursing (see research note on defining and describing security professionals). Professional associations set examinations to test knowledge and competence, and universities, colleges or schools design curricula that prepare students to succeed on the output measures. Credential assessment in these cases measures the standards achieved in one jurisdiction with the standards demanded in another, often with some granularity. A lot of energy has gone into curriculum comparison in medical schools, for example (See the research note, Last, 14 May 2014 for the relevance of Medbiquitous, CURMIT, and CIR initiatives, and commercial providers like One45).

Prior learning assessment and recognition (PLAR)

Prior learning assessment and recognition is usually undertaken by institutions to determine equivalent credits to be applied to degree requirements, or to determine eligibility for admission to programs. Since the early 1990s, the Canadian Association for Prior Learning Assessment (CAPLA) has brought more systematic discipline to the process in Canada, and has developed a strategic plan (CAPLA, 2011) to guide operations towards a preferred future, which is learner-centered and meets the needs of organizations for consistent credentials. “Prior learning assessment and recognition defines processes that allow individuals to identify, document, have assessed and gain recognition for their prior learning,” whether it is formal, informal, non-formal, or experiential. It can also be used to determine learning outcomes from informal or non-formal learning, through tools like challenge exams, demonstrations, structured interviews, simulations or portfolios, to demonstrate competence.

Recognition of prior learning is a general term that encompasses credential recognition and qualification recognition. Credentials are formal documents such as diplomas, degrees and licenses, while qualification recognition is a process usually associated with internationally trained or educated individuals requiring recognition of their learning for employment purposes. (CAPLA, 2007).

Credential assessment operations

In Canada, the Federal Skilled Worker Program requires assessment of qualifications by a Canadian body in order for them to be considered for immigration or a work visa. The Educational Credential Assessment (ECA) is a specific national example of the much wider (but not universal) phenomenon of national assessments of equivalency. From the Canadian example we can learn how these operations can be linked to universities and governments, how input-based credential assessment operations are conducted, the resources required, and the data accumulated. There is little or no market for comparative security education credential assessment to support labour mobility, but there is

potentially a lot of interest in the equivalency of credentials within an international professional community.

Educational credential assessment in Canada has been supported and advanced by the Council of Ministers of Education of Canada (CMEC).² CMEC began work with CICIC in 2007 on a three-phase project to provide effective credential assessment. Phase I, an examination of academic credential assessment in Canada, was completed in 2008. Phase II developed web-based resources and tools for credential assessment and was completed in 2012. Some of these are addressed below. Phase III, Building Bridges, addresses “consistency, portability, and capacity of international academic credential assessment in Canada.” It is in progress.³

There are five bodies authorized by Citizenship and Immigration Canada (CIC) to provide Educational Credential Assessments: Comparative Education Service (CES) of the University of Toronto School of Continuing Studies; the International Credential Assessment Service of Canada (ICASC); World Education Services (WES); and two professional bodies—the Medical Council of Canada and the Pharmacy Examining Board of Canada.⁴ The professional bodies are concerned with output evaluation, while the others conduct input evaluation, and are generally not concerned with course-by-course assessments, or (for the purposes of the FSWP) any qualification less than a completed degree.

The University of Toronto has been conducting assessments of foreign degrees for admissions purposes since its inception, but a special section to compare foreign degrees was established in 1967. This capacity was vested in the office of Admissions until 2009, **with assessors being drawn from the ranks of admissions staff, often sharing admissions duties in addition to providing assessments.** During this period, CES followed University of Toronto admissions policies concerning **equivalency of foreign programs**, and some of these policies (such as the admissibility of particular types of degrees for graduate programs) serve as historic influences or precedents for equivalence.

In 2009, the unit was moved to the School of Continuing Studies. The Comparative Education Service is ~~now~~ the only university-based credential assessment operation in Canada, although each province has a university quality assurance body, six of which are recognized by the Canadian Information Centre for International Credentials (CICIC). CES does not **comment on** professional training, licenses, **trade** certificates or vocational qualifications, but specializes strictly in academic **credentials of secondary and post-secondary level.** Requests for assessment must be submitted with translations if the original **documents are** not in English, French, or Latin, but translations are not **always reliable**, so there is a lot of demand for competence in Russian, Chinese, European languages, and Arabic (**I would add Persian, as we have many Iranian clients**).

² <http://www.cmec.ca/en/>

³ <http://evaluation.cicic.ca/en/>

⁴ <http://www.cic.gc.ca/english/immigrate/skilled/assessment.asp>

The unit consists of six assessors with advanced academic qualifications (**not all of us! Some just have Bachelor degrees, although a new job description is being drafted which would require/prefer Master's degree holders**), and a support staff of 13 (**13 staff in total, 6 of whom are assessors, so 7 support staff**) with diverse academic and linguistic competence. The IT section of the School of Continuing Studies provides computer support. Skills are learned on the job under supervision, and shared within the unit. Support staff helps with research using files (validated documents and assessments), paper references, **correspondence with institutions**, and online services (see below).

It takes at least six months for an assessor to learn the process, usually starting with research support, and moving up to assessment of individual files. A competency profile for academic credential assessors has been developed under the auspices of the CICIC and published in three volumes.⁵ There is often a backlog of requests to universities, and the fastest way to clear files is by using online databases (see the list attached).

The delay times specified on the web site (five to eight weeks) is made up largely of backlog cases. The workflow is typically 200-300 per month, but that is increasing now with assessment responsibilities related to the Foreign Skilled Workers Program. An assessor can typically handle four to eight cases a day, depending on the complexity. Simple cases from countries with **familiar education systems**, good records and access to information can be done in as little as 15 minutes, but more complex cases or cases from countries with poor records or chaotic circumstances can take days or weeks (**or months**). Correspondence to validate documents takes time.

The unit recovers its costs through fees, which are currently set at \$200 per application. My estimate is that to cover incremental labour costs, they would have to process more than 7500 requests per year, meaning each assessor would handle at least 30-50 files in a week.⁶ Time to assess a file varies considerably based on the complexity or obscurity of the case. It begins by determining whether the documentation is complete. Documents are then compared to verified documents kept on file. It is not uncommon to have genuine degree certificates, but altered or forged transcripts. Countries with weak institutions or strong incentives for people to leave (e.g. Afghanistan, Iraq, Syria) will experience higher rates of fraud, and when national institutions collapse as they did in Afghanistan, there is no way to verify documents. Sometimes problems are short-term, as in the case of Haiti after the 2010 earthquake. Requests will not be accepted from countries for which an accurate assessment is not possible. Occasionally, new information will call an assessment into question, and a letter will be rescinded, with requests to return the letter,

⁵ http://cicic.ca/docs/2012/Competency_Profile_Volume_1_EN.pdf

⁶ Labour costs estimated at 6x80k for assessors, \$480k; and 13x50k for support, \$650k university office space may be subsidized; subscriptions, memberships, etc, \$30k minimum incremental costs probably about \$1.5m based on size of operation; implies > 7500 assessments per year; implies each assessor handles ~1300 plus per year or 25-30 per week, some in as little as 15 minutes, some take hours over a period of days.

and reference to the criminal offense of presenting false documents. Sometimes this works.

Before 2008, CES did course-by-course evaluations of qualifications, determining whether a program of study consisted of enough credits to be considered an equivalent to a bachelors or masters degree. However, the methodology was not sufficiently convincing to warrant the effort. For example, Russian technical courses varied widely in contact hours, and it was impossible to compare GPA weights. The Bologna process has already gone a long way towards standardization.

There is no **mention of university ranking or** comparison of quality of degrees in the assessment process. If a program is deemed as equivalent to a bachelor's or *première cycle* degree, then they are all deemed equivalent. The University of Toronto **School of Graduate Studies (SGS)** publishes an online list of equivalent bachelor and master programs from other countries that are required for admission to U of T's master and doctoral programs . For CES, the key is the actual title, or degree completion; they will not certify a credential as "equivalent" to a degree if one has not been awarded.

Total time in educational institutions helps to distinguish bachelor's degrees from lesser qualifications like CEGEP or *licenciado*.⁷ The assumption is that primary, middle, and secondary school **should** add up to at least 12 years, so this helps **distinguish** pre-university programs, usually **lasting** one or two years, from **those at** university level. Many countries in Europe and the former Soviet Union had long-cycle first degrees, lasting five years for engineering or medicine. Secondary school completion plus five years in Europe might award only bachelors, while the same length of time in Latin America might result in a *Titulo*, equivalent to masters. The actual title of the degree is what is assessed by CES, not the equivalent content. They will not certify bachelors plus masters equivalence from a single diploma. Another example is the German *habilitation*, which is really the equivalent of a post-doctoral stage with a second major publication, but it counts only as a doctoral degree. There is a tendency to "round down" when there is any imprecision in a qualification's equivalence.

When calculating equivalent time in a degree program, practicum and internship times are not counted as part of the total contact time, **because it is mainly the academic content that is counted.** and medical degrees often present problems because of the quantity of on-job training that is included in the total time to degree completion, and there is no exact equivalence

When an assessment is completed, the results will be returned to the applicant in the form of a letter on University of Toronto letterhead, using standard language, including caveats about the degree of uncertainty and the difficulty of validating documents, if that applies. The important thing to keep in mind about credential assessment is that there are no easy

⁷ www.classbase.com is a good resource for country comparisons of educational systems, including clear indications of the number of years of education provided at primary, middle, secondary, vocational and tertiary education, and normal age ranges for each stage.

templates. There is a great deal of variation in most of the cases presented, and judgement and knowledge of alternative education systems is an essential part of the process.

Implications for education of security professionals

There are important differences between markets for university education in general, and the higher education of military and police officers in specialized institutions not normally open to civilians. These institutions may be competing for students, but they are not part of the normal market in higher education, and their graduates are normally committed to national service, with little expectation of international mobility unless they leave their profession.

On the other hand, graduates' expectations are increasingly that their counterparts in other professions will take security education seriously, that it will equip them effectively for professional challenges, and that it will stand them in good stead upon retirement. Military and police leaders often retire young, adding incentives for degree programs that are deemed relevant outside their organizations. The same nuance and variation evident in universities around the world is evident in specialized institutions for higher security education. The same pressures for quality and recognition often motivate security institutions to offer accredited degrees, both for status competition and political purposes (Windolf, 1992).

Three specific research implications deserve further examination. A fourth consideration is the broader question of internationalization of higher education.

First, the existing database of entry, mid-career, and senior officer education establishments for police, paramilitary, and military leaders should be compared to lists of **recognized** universities by country, particularly in Russia and China, where our access has been limited. I expect that the lists will overlap, but that different information will be available from CES.

Second, the process of accreditation can be used as a guide for determining university-**level** status. Our estimates based on comparison with Bologna criteria are loose. There is an advantage to considering potential university-**level** status of non-university institutions (e.g. entry level officer academies in Botswana and Kenya, or Police Academy Barro Branco in Sao Paulo). Sometimes the institutions are on the verge of seeking university status; rarely are they moving in the opposite direction.

Third, the credential benchmarks can be used to determine change in educational environment. Single indicators like the proportion of global security education institutions that register on national lists of accredited universities (the NARIC network) offers succinct national and regional comparisons, and change over time may help to reveal patterns of institutionalization.

The next step within the research project might be collaborative research engaging insiders with experience in credential assessment and national accreditation, in order to access the resources described in interviews.

A fourth consideration arises from a closer examination of credential assessment. The details of CMEC, CICIC, and the NARIC network, as well as the global efforts of UNESCO, cast light on processes of internationalisation within higher education, and this is part of a large field of scholarly debate going back many years, and touching on economics, sociology, political science and international relations. Interesting for our purposes is that this field of scholarship does not appear to have intersected much with security studies. UNESCO's Culture of Peace program is the exception. Some of the references on internationalization of higher education merit further investigation.

Selection of online resources for credential assessment

Canadian Information Centre for International Credentials (CICIC)

<http://cicic.ca/2/home.canada>

Comparative Education Service (CES) <http://learn.utoronto.ca/international-professionals/comparative-education-service-ces>

World Education Service (WES) <https://www.wes.org/ca/>

Alliance of Credential Evaluation Services of Canada (ACESC)

<http://www.canalliance.org/assurance.en.stm>

International Education Services (IES)

American Association of Collegiate Registrars and Admissions Officers (ACCRAO)

<http://www.aacrao.org>

ACCRAO-Edge <http://edge.aacrao.org/info.php#.U35Ztl6D6yM>

Projects for International Education Research (PIER)

The Connection: International Credential Evaluation Professionals

<https://theconnection.ece.org>

National Recognition Information Centre (NARIC) UK <http://ecctis.co.uk/naric/>

ENIC-NARIC France is the French information centre for the academic and professional recognition of qualifications <http://www.ciep.fr/en/enic-naric-france>

ENIC-NARIC.net, Gateway to recognition of academic and professional qualifications

<http://www.enic-naric.net/index.aspx?c=Germany> includes country pages for 55 countries, mainly English speaking, European, and euro-periphery. See partner organizations (Council of Europe, European Commission, UNESCO, and

UNESCO/CEPES. Also see reference documents, legal frameworks and best practices in the provision of transnational education and evaluation of credentials.

Each national page lists:

- National Information Centres
- National education bodies
- System of education
- University education
- Quality Assurance in Higher Education
- Post-secondary non-university education
- Recognized higher education institutions
- Policies and procedures for the recognition of qualifications
- Qualifications Framework
- Diploma Supplement Information

European Centre for Higher Education (UNESCO-CEPES)

http://www.coe.int/t/dg4/highereducation/ehea2010/stakeholderscepes_EN.asp

- UNESCO-CEPES (the European Centre for Higher Education/Centre Européen pour l'Enseignement Supérieur) was established in September 1972 with a view to promoting co-operation in higher education among Member States of the Europe Region (the countries of Europe, North America, and Israel). The activities of UNESCO-CEPES are focused foremost on higher education in Central and Eastern Europe. In addition, the Director of UNESCO-CEPES is the Representative of UNESCO in Romania.
- Since September 2003, UNESCO-CEPES has been a consultative member of a Follow-up Group of the Bologna Process.
- To fulfil its mission, UNESCO-CEPES...

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Readings on Internationalization of Education

Although almost none of the literature on internationalization of education mentions military or police education, or even security in the broadest sense, a great deal of it is relevant to the problems facing higher education in security establishments. The references that follow, and others like them, merit exploration in the context of NATO's Defence Education Enhancement Program and other initiatives for higher education in security.

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