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PAN-CANADIAN QUALITY STANDARDS IN
INTERNATIONAL ACADEMIC CREDENTIAL ASSESSMENT

A Feasibility Study for a Web-Based Application to Share Assessment Results, Resources, and Methodologies on Academic Credential Assessments

Canadian Information Centre for International Credentials | Centre d'information canadien sur les diplômes internationaux

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The Council of Ministers of Education, Canada, was formed in 1967 by the provincial and territorial ministers responsible for education to provide a forum in which they could discuss matters of mutual interest, undertake educational initiatives cooperatively, and represent the interests of the provinces and territories with national educational organizations, the federal government, foreign governments, and international organizations. CMEC is the national voice for education in Canada, and, through CMEC, the provinces and territories work collectively on common objectives in a broad range of activities at the elementary, secondary, and postsecondary levels.

The Canadian Information Centre for International Credentials (CICIC) was established in 1990 after Canada ratified the United Nations Educational, Scientific and Cultural Organization (UNESCO) Convention on the Recognition of Studies, Diplomas and Degrees concerning Higher Education in the States belonging to the Europe Region, to assist Canada in carrying out its obligations under the terms of this convention. In 1997, Canada signed the subsequent Lisbon Recognition Convention, promoted its Recommendation on Criteria and Procedures for the Assessment of Foreign Qualifications, and adopted a set of General Guiding Principles for Good Practice in the Assessment of Foreign Academic Credentials. Both of these conventions promote international mobility by advocating wider recognition of higher education and professional qualifications.

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EXECUTIVE SUMMARY

The Council of Ministers of Education, Canada/Canadian Information Centre for International Credentials (CMEC/CICIC) commissioned this study of the feasibility of an on-line tool or portal to share academic credential assessment results, resources, and methodologies between the various academic credential assessment organizations in Canada. The emphasis was on the willingness of organizations to share their data and their interest in using such a facility, rather than on its technical feasibility.

The study gathered information from 138 e-questionnaire responses from people in 82 organizations, from 17 key informant interviews, and from desk research. The data has been analyzed in terms of 15 major organizations, and 67 other organizations, divided between academic credential assessment services, professional bodies (taken to include all those regulatory authorities, professional bodies, and trade bodies that perform academic credential assessment), and postsecondary education.

Overall, the study has identified a significant amount of diversity within the Canadian academic credential assessment community, both in opinion and practice. Significant differences can be identified in all the major areas of the study.

The condition of organizations' decision data is variable and uncertain, and not in a good state for easy computer access:

- Data quality is unreliable, with recent data generally good, but older data less so, requiring local knowledge to interpret.
- Data are held in a wide variety of data structures, with about one-third of respondents reporting that their data were not computerized, one-fifth reporting computerized but not structured, and only about one-third reporting that their data were held in a modern database structure.
- In some cases, the decision data are intermingled with personal data, requiring manual intervention to comply with privacy requirements.

Six categories of data are identified in Section 3.1, and the advantages and disadvantages of sharing them are discussed. Records of precedents (together with sector profiles) offer opportunities for sharing, followed by records of decisions with their rationales. The obstacles and opportunities of sharing data are discussed in Sections 3.2 and 3.3.

There is a strong "don't know" on the willingness to share data, with none of the major organizations against, but only two actually in favour. In addition to overcoming the data issues, respondents were seeking clarity on the exact nature and purposes of the tool, who would have access and for what, and assurances on privacy, and in any case stated it would need internal management approval. There is support for access to shared data, subject to suitable payment and other arrangements.

From these results, we conclude that there has not (yet) been enough consideration of the issue for any consensus to emerge. Given the results, we do not recommend full implementation at this time.

Rather than taking no action, we propose a trial with a small cluster of willing partners. This provides a practical way ahead to explore and overcome the identified issues. If successful and sufficiently attractive, the trial could be progressively expanded in both functionality and coverage. Such a measured and incremental approach supports the positive response that was evidenced in the study without ignoring the concerns that were raised.

Three options are presented for sharing data:

- Create a **standard specification** for a database, convert existing databases to conform, and develop a simple tool to access them.
- Develop a more sophisticated **Web-based tool to access existing databases**.
- Develop a **standard database application** that can be supplied to any academic credential assessment organization that would wish to adopt it.

This study confirmed there was also strong support for the Country Profiles project (even from respondents who were not fully aware of it), and we propose that expansion of this to more countries and more institutions should also be part of the way ahead.

As a result, we propose the following recommendations:

- The Canadian academic credential assessment community should continue discussing cooperation.
- A limited trial should be developed and implemented to provide more information on benefits.
- The trial should include those major organizations interested in taking part, together with perhaps one smaller regulator organization and one university or college.
- The trial should concentrate on sharing precedents (including compatible information stored in country and sector databases).
- The trial should be undertaken in collaboration with the Country Profiles project.
- The trial process should follow the 10 steps set out in Section 3.5.

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1. INTRODUCTION

The application must not necessitate the creation of a centralized database, but rather, the development of a collaborative pan-Canadian model.

1.1 Background

In 2007, CICIC embarked on a project entitled pan-Canadian Quality Standards in International Academic Credential Assessment in partnership with the Alliance of Credential Evaluation Services of Canada (ACESC), with funding provided through Human Resources and Skills Development Canada's (HRSDC) Foreign Credential Recognition (FCR) program. At the core of this project is the goal of improving the quality, consistency, and portability of academic credential assessments through the introduction of pan-Canadian standards. It was intended to help organizations employing academic credential assessors to increase the professionalism of their workforce.

CICIC has initiated a suite of projects under Phase II of the project under the umbrella of CMEC:

- development of a competency profile for Canadian academic credential assessors;
- development of French and English terminology guides for academic credential assessments in Canada;
- development of a pan-Canadian quality assurance framework for use by all groups performing academic credential assessments in Canada;
- development of profiles (on a pilot basis) for two major source countries of immigration to create a set of pan-Canadian references;
- a feasibility study for an on-line postsecondary education program for Canadian academic credential assessors;
- a feasibility study for shared information on academic credential assessment via an on-line tool at a pan-Canadian level to promote greater consistency, mutual recognition, and transparency of assessment processes.

These projects all culminated in a pan-Canadian workshop for Canadian academic credential assessors that was held in Moncton, New Brunswick, on October 3–4, 2011.

1.2 Aims of This Project

This feasibility study is for a Web-based application to share assessment results, resources, and methodologies on academic credential assessments. It was carried out by Cambridge Professional Development Ltd (CamProf, also the contractor for the competency profile) together with Vandenburg & Associates (V&A), from April to July 2011. The project assesses the feasibility of implementing a Web-based collaborative framework to provide common access and increased use from academic credential-related data currently stored in a number of stakeholder databases and other systems.

This study aims to paint a clear enough image of the potential challenges and benefits of the project so stakeholders are able to make a decision about the next steps. We therefore try to present answers to the following questions in this report:

1. Who are the key stakeholders that would contribute to/benefit from such an application?
2. What data do the stakeholders possess and what is their willingness to share it with others? What business considerations have an impact on this willingness?
3. How are the stakeholders currently using their data? Are there any unmet needs or areas for improved efficiency?
4. What are the business and legislative requirements of the current data management systems?
5. What synergies are possible from establishing relationships and connections between stakeholder data?
6. On what basis are stakeholders willing to participate in such a sharing arrangement?
7. What is the best model for overseeing such an arrangement?

This feasibility study is closely related to the Country Profiles project that is also developing a shared resource for the Canadian academic credential assessment community.

The request for proposals stated "... sharing existing information on assessment results, resources and methodologies through a Web-based application. The application must not necessitate the creation of a centralized database." Ownership, operation, and maintenance considerations, as well as security concerns and jurisdictional realities, suggest the development of a collaborative pan-Canadian model rather than a single pan-Canadian database. This study reports on attitudes and more practical considerations to assess feasibility and facilitate cooperation. We examine a number of key business and technical considerations for any future development.

1.2.1 Business Considerations

The business considerations include such items as:

- stakeholder openness to sharing proprietary information;
- legislative concerns, including privacy, validity of data from outside jurisdictions, and liability issues;
- financial considerations;
- development of an oversight model for the system;
- finding an equitable business model that encourages those organizations with significant information to benefit from sharing it;
- developing a quality assurance process to ensure that the portal remains current, accurate, and viable into the future.

1.2.2 Technical Considerations

The technical considerations include the following:

- creating a data schema or structure that is robust enough to include the variety of databases in existence while being clear and straightforward enough that development is not discouraged;
- determining a sustainable resource allocation to balance maintenance, development, portal promotion, and support;
- the risk of a change in the "winds" of technology rendering the proposed solution obsolete or requiring special effort to use it (e.g., Blu-ray versus HD-DVD);
- a decision by one or more keystone partners to cease participating in the portal;
- changing security policies on the part of member organizations threatening database access;
- data loss on the part of one or more keystone partners;
- demand overtaxing the identified hosting resources.

Note that additional technical questions were excluded from the scope of this project and so were not addressed during the data collection, although answers will be required before any move to implementation.

1.3 Methodology

A kick-off meeting was held with the working group in Winnipeg, Manitoba.

There were two main techniques of data collection, which took similar forms and were conducted simultaneously:

- an e-questionnaire (Appendix I) on the SurveyMonkey Web site in both French and English. Invitations were sent to names on lists compiled by CICIC.
- structured interviews (mostly telephone, but two were face-to-face and one responded to the questions by e-mail) with key informants selected to represent the spectrum of potential contributors and end users of this tool.

The same topics were covered in both interviews and the questionnaire, but the interviews allowed for more detailed responses, enabled the consultant to offer a fuller description of the proposed tool, and ensured greater clarity by enabling discussion where necessary (see Appendix II).

1.3.1 e-Questionnaire

An estimated 1,500 invitations to fill in the e-questionnaire were sent out to contact lists created by CICIC. Owing to the scale and nature of the contact process, it is impossible to know exactly how many individuals received the initial request and the subsequent reminder to complete the survey, or how many of the recipients were in fact members of the Canadian academic credential assessment community. In several cases, there were several respondents from a single organization, which provided corroboration of the data, but required care to avoid double counting. In addition, some non-relevant responses were received, from academic credential assessors outside Canada, as well as end users of assessments (clients, rather than assessors) both within and outside the country.

Although the questionnaire was piloted with the working group, some of the respondents did not appear to understand some of the questions. The questions to do with funding and hosting were found to be the most ambiguous. The question of sharing of data was also difficult to answer, but for different reasons — most of the respondents to the questionnaire were not in a position to answer without some consultation with their board of directors or stakeholders.

1.3.2 Key Informant Interviews

For the telephone interviews, a list of categories of academic credential assessment organizations was drawn up at the kick-off meeting in Winnipeg, designed to capture the spectrum of potential information providers and end users of the proposed tool. Fifteen key informant interviews were distributed through these categories. The list included all members of the ACESC, several other large assessment agencies, a university, a college, one teachers' association, two professional bodies, and an employer. CICIC then identified and contacted suitable interviewees in each category. All but one key informant from this list was interviewed, plus three additional interviews, bringing the total to 17 (see Appendix III). We were unable to find a large employer who conducts academic credential assessments in-house instead of outsourcing to private or governmental organizations. Both CamProf and CICIC contacted several employers, as well as human resources professional bodies, but were unable to find a single employer who fit the parameters.

The questions about quality assurance, hosting, and funding were more easily dealt with during interviews, with further explanation. The interviewer e-mailed his/her notes to the interviewees to be reviewed and changed if necessary. The e-questionnaire provided a large volume of replies to complement the greater detail and reliability from the interviews.

1.4 Next Steps

This report presents the following for consideration by the working group and the wider assessment community:

- the current academic credential-related data sets in Canadian jurisdictions and their possible use in a collaborative model;
- a development path to implement a Web-based collaborative tool enabling common access to academic credential-related data sets, identifying its relative benefits, risks, resource requirements, and possibility of success;
- recommendations for the next steps toward a development process.

This final report sets out our findings and views on possible ways forward. It was updated after public consultation and was presented at the Moncton workshop in October 2011.

2. FINDINGS

"There is currently no common data standard for academic credential assessment. The adoption of a data standard would facilitate the mapping of one organization's data onto another's and thus enable searching and sharing of data."[1]

1 Canadian Information Centre for International Credentials under the Council of Ministers of Education, Canada. (2012). *A Feasibility Study for a Web-Based Application to Share Assessment Results, Resources, and Methodologies on Academic Credential Assessments*; Retrieved January 11, 2012, from http://cicic.ca/docs/2012/Shared_Data_EN.pdf

2.1 The Canadian Academic Credential Assessment Community

HRSDC states "There are a multitude of players involved in the assessment and recognition of foreign qualifications. There are nearly 500 professional regulatory authorities and numerous academic credential assessment bodies in Canada, as well as hundreds of postsecondary and vocational institutions and countless numbers of employers, immigrant serving agencies, and most importantly, immigrants and other internationally-trained workers." [2]

There are three main subdivisions of Canadian academic credential assessment organizations:

1. assessment services;
2. professional bodies (taken to include all those regulatory authorities, professional bodies, and trade bodies that perform academic credential assessment);
3. universities and colleges.

It is important to note that assessment services provide evaluations that are primarily advisory. In contrast, professional bodies and postsecondary institutions are bodies that conduct academic credential assessments and may also provide recognition in the form of licensure, admission, advanced credit, etc. These differences can be reflected in the nature of an organization's data.

In addition, it has become clear from studying the e-questionnaire responses that the community is dominated by a relatively small number of major credential assessment organizations, handling great numbers of academic credentials every year and employing a number of assessors. After inspecting the data, we decided that major organizations are those that handle 1,000+ assessments per year AND employ six or more full-time assessors.

COMPONENTS OF THE CANADIAN ACADEMIC CREDENTIAL ASSESSMENT COMMUNITY

	MAJOR ORGANIZATIONS	OTHER ORGANIZATIONS
ASSESSMENT SERVICES		
PROFESSIONAL BODIES		
UNIVERSITIES AND COLLEGES		

The major organizations differ significantly from the others in many ways, although inevitably these are broad generalizations about an extremely varied spectrum of organizations, as shown below. If the major organizations agree to cooperate, then they bring with them the majority of the academic credential assessment decisions made in Canada, creating critical mass. The views of the major organizations are, therefore, critical. If the venture proceeds, it is likely that many of the other organizations will be keen to join since they have more to gain by cooperating.

2 http://www.hrsdc.gc.ca/eng/workplaceskills/publications/fcr/pcf_folder/section_1_02.shtml

TYPICAL CHARACTERISTICS OF THE CANADIAN ACADEMIC CREDENTIAL ASSESSMENT COMMUNITY

	MAJOR ORGANIZATIONS	OTHER ORGANIZATIONS
STAFF	• a team of academic credential assessors with differentiated specialist roles (e.g., languages and countries) • specialist support staff (e.g., information technology, fraud detection, administration, management) • career progression routes • participation in international meetings	• dependence on a very small number of professional academic credential assessors (often one or two) • academic credential assessors isolated from others in the profession • dependence on part-time voluntary assessors
CASELOAD	• large numbers per year for each academic credential assessor • wide range of academic credentials (levels, subjects, and countries) handled each year by the organization (narrower range for the individual academic credential assessors)	• small numbers per year • narrow range of academic credentials considered, but from a broad range of countries
TOOLS AND PROCESSES	• development of special proprietary tools in-house (e.g., databases) • data for great number of assessments • income from sale of data to others • formal quality assurance systems in place	• unsophisticated formal records, often not electronic • reliance on human memory of precedents as well as formal records • data for relatively few assessments • absence of specialist equipment and expertise in fraud detection
TRAINING	• formal induction and training • in-house training • collaboration with other major academic credential assessment organizations • sale of training to others	• informal, on-the-job training • attending occasional formal courses offered by others • collaboration with other (non-major) organizations in same sector (across jurisdictions) or in same jurisdiction
INTEREST IN SHARING	• competition between major organizations as well as a strong public-service inclination to share and cooperate • reluctance to share items that provide competitive advantage • diminishing economies of scale: obvious savings already achieved	• little to offer in exchange for access to databases and expertise • much to gain from access to others' databases and expertise • may already share with similar organizations in other jurisdictions and abroad

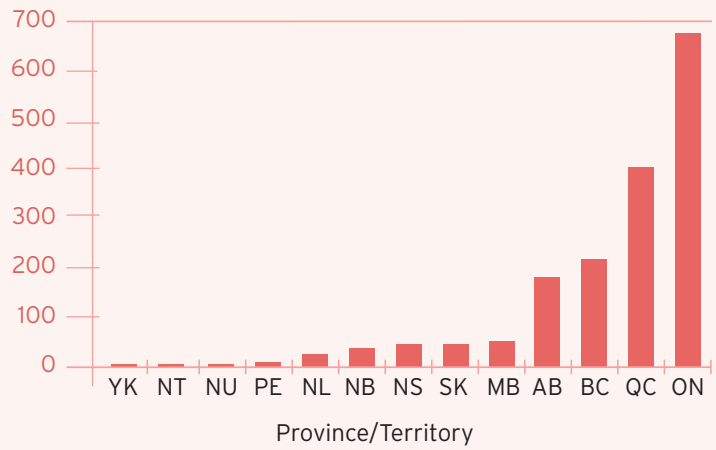
Individuals seek academic credential assessment for several different purposes. These purposes include gaining residence or citizenship in Canada, accessing specific educational courses, acceptance into regulated occupations and professions, or for employment. The range of services offering academic credential assessments is equally varied. Large, government [e.g., the *Centre d'expertise sur les formations acquises hors du Québec* (CEFAHQ)] or privately funded organizations cover a large population of individuals mainly seeking residency or broad access to employment. Universities and colleges, meanwhile, concentrate on access to specific educational programs and whether the individuals are qualified for admission. Professional bodies, on the other hand, focus more on validity of education already achieved, and whether it would allow the individual to undergo the requirements to eventually perform effectively in his/her chosen career within Canada. All assessment services facilitate immigrants' access to employment, licensure, and higher education. As previously mentioned, there are distinctions between academic credential assessment services (providing assessments that are primarily advisory) and professional bodies/educational institutions (providing assessments while potentially providing recognition as well).

Because of the different purposes of academic credential assessments, different organizations mentioned that they would be interested in accessing specific information related to their field of interest. For instance, universities and colleges were most interested in information on educational systems, grade scales, and the status of educational institutions. Regulatory bodies were interested in the status of institutions and detecting fraud, but also in what the outcomes of study would be in the country of origin – in other words, what careers would be available to

them following their education. Larger organizations with a broad range of services were interested in a much wider range of information, including previous decisions and rationales.

It is not yet possible to make a reliable estimate of the number of academic credential assessors. The e-questionnaire asked for numbers of full- and part-time academic credential assessors, but several responses to the question were either "0" or "blank/unknown." This suggests that while there may be a small number of individuals who regularly perform assessments, there is a much larger community of people who have connections to assessment procedures and results or who make only a few assessments per year. In the Competency Profile project, a range of 2,000 to 3,000 employees was given, including management and administration, so perhaps there are around 1,500 actual assessors. Based on the provincial/territorial distribution in our e-questionnaire responses, this would give a distribution by province/territory as shown, with the vast majority concentrated in the four provinces of Ontario, Quebec, British Columbia, and Alberta.

Chart 1 – Estimates of Assessor Numbers by Province/Territory



2.1.1 Assessment Services

Of the three main groupings of assessment agencies (assessment services, professional bodies, and universities and colleges), the first is the most easy to identify, as it is made up mainly of the five members of ACESC.[3] An asterisk (*) indicates that we received an e-questionnaire from someone at the organization:

- *CEFAHQ serves Quebec.
- *World Education Services (WES) is recognized by the Government of Ontario.
- *International Qualifications Assessment Service (IQAS) serves Alberta, Saskatchewan, and the Northwest Territories.
- *International Credential Evaluation Service (ICES) serves British Columbia.
- Academic Credentials Assessment Service (ACAS) serves Manitoba.

In addition, the following are likely to join ACESC:

- *Comparative Education Service (CES)
- *International Credential Assessment Service of Canada (ICAS)

3 http://www.cicic.ca/415/credential-assessment-services.canada

- International Credential and Competency Assessment and Recognition (ICCAR) (being established to serve New Brunswick, Newfoundland and Labrador, Nova Scotia, and Prince Edward Island)

Finally, there are two Quebec assessment services responsible for admission into Quebec cégeps:

- **Service régional d'admission du Montréal métropolitain* (SRAM)
- *Service régional d'admission au collégial de Québec* (SRACQ)

We interviewed representatives at all these services and received e-questionnaire responses from those seven organizations marked with an asterisk. We are not aware of any other assessment services, so this implies a 90 per cent sample for the key informant interviews and a 70 per cent response rate for the e-questionnaire. We are therefore confident our findings represent the views of the assessment services. ACAS and SRACQ do not reach our threshold size for a major organization.

2.1.2 Professional Bodies

The landscape of professional bodies (taken to include all those regulatory authorities, professional bodies, and trade bodies that perform academic credential assessment) is very complex and varied. In general, there are professional bodies for each regulated occupation and profession in every province and territory that are responsible for assessment of academic credentials. In most professions, there are also pan-Canadian organizations, helping the provincial/territorial level to collaborate and coordinate their academic assessment activities (among many other roles). Professional bodies also exist for many professions that are not regulated, but which nevertheless set standards for membership that include assessing academic credentials. Several professional or regulatory bodies perform many forms of assessment that do not deal directly with academic credentials and that fall outside the scope of this research, for example, profession-specific assessment. Additionally, there is no standard pattern of academic credential assessment; there are differences across jurisdictions and professions. In some cases, a provincial/territorial-level organization subcontracts assessment to an assessment service or to the pan-Canadian body. In others, provincial/territorial bodies share information with the pan-Canadian body or with regulators in one or more of the other jurisdictions. In this confused situation, it is very difficult to estimate the total number of bodies that exist, still less the number that carry out academic credential assessment.

We interviewed key informants in the following regulatory bodies. Those that also provided e-questionnaires are marked with an asterisk:

- Engineers Canada
- *Canadian Council of Technicians and Technologists (CCTT)
- *British Columbia College of Teachers

None of these bodies was classified as a major organization (but see below).

In addition, we received e-questionnaires from respondents at three regulatory bodies that, by their responses, we classified as major organizations:

- *Certified Management Accountants Ontario (CMA Ontario)
- *Ontario College of Teachers
- *Association of Professional Engineers, Geologists, and Geophysicists of Alberta (APEGGA)

We are also aware of the following organizations that appear likely to fulfill our criteria as a major organization:

- Federation of Law Societies of Canada
- Canadian Midwifery Regulators Consortium (CMRC)
- Certified General Accountants Association of Canada (CGA-Canada)
- Engineers Canada (which, although it has a database of foreign engineering credentials, could not be classified since it does not itself perform assessments)

In addition, we received e-questionnaires from 45 non-major professional or regulatory bodies. To put these figures into context, "The AIT (Agreement on Internal Trade) covers over 100 professions and government-regulated trades and occupations involving close to 400 regulatory bodies that must, among other things, reach agreement to ensure that qualifications earned in one jurisdiction will be recognized in other jurisdictions. There are approximately 60 regulated professions in Canada, with 51 of them regulated in two or more

jurisdictions. ...It is not just "professional" occupations that are subject to the AIT. There are approximately 50 trades where certification is compulsory in at least one jurisdiction. Examples of trades that require certification/licensing in most jurisdictions include electricians, plumbers and automobile mechanics."[4]

Not all 400 regulatory bodies at pan-Canadian or provincial/territorial levels will have an academic credential assessment function. Some regulatory bodies perform academic credential assessments collectively at the pan-Canadian level (e.g., CCTT); some perform it collaboratively but at the provincial/territorial level (e.g., Engineers Canada); some perform it independently at the provincial/territorial level; and in many cases, there is a mixture, with some provinces/territories collaborating and others acting independently. We cannot estimate the number of regulatory bodies that assess academic credentials.

With such a significant and diverse component of the credential assessment community, we cannot be certain how representative our findings are. Our sample size among both the major organizations and the other organizations is relatively large, but the total population from which it is drawn is unclear.

2.1.3 Universities and Colleges

Key informants in four postsecondary educational institutions were interviewed:

- Algonquin College
- Dalhousie University
- University of British Columbia
- York University

None of these responded to our e-questionnaire, so we could not classify them as major or other.

In addition, e-questionnaires were received from 25 post-secondary educational institutions. This represents 8 per cent of the total population of 296 Canadian postsecondary institutions (144 universities and 160 colleges, including 8 that fall into both categories) listed on the CICIC[5] Web site. From our sample, we have classified the following as major organizations:

- *University of Calgary
- **École Polytechnique de Montréal*
- *Laurentian University
- **Université du Québec à Trois-Rivières*
- *University of Toronto

We cannot be confident that our sample is representative of the postsecondary sector as a whole. Although none of the major organizations was interviewed, it will be seen from the results of the e-questionnaire that there do not seem to be significant differences between major organizations and the others in the postsecondary educational institutions.

2.2 e-Questionnaires

It should be noted that e-questionnaires were filled in by individuals reflecting their personal opinions, rather than being an official response on behalf of the organization. As explained, in many cases there were several e-questionnaires returned from a single organization. When this duplication was removed, we found we had the following numbers of organizations represented in the e-questionnaire responses:

	MAJOR ORGANIZATIONS	OTHER ORGANIZATIONS	TOTAL
Assessment Services	6	2	8
Professional Bodies	4	45	49
Universities and Colleges	5	20	25
Total	15	67	82

In terms of the pattern of responses to the e-questionnaire, there did not seem to be a significant distinction between major universities/colleges and the non-major ones.

2.2.1 Tabulations of Respondents, How Representative?

We received a good level of response to our surveys; a total of 185 individuals (39 French, 146 English) began to complete the survey. However, owing to the broad nature of the contact lists used, some responses had to

4 http://www.hrsdc.gc.ca/eng/workplaceskills/labour_mobility/index.shtml#ccda
5 http://www.cicic.ca/422/directory-of-universities-colleges-and-schools-in-canada.canada?s=1

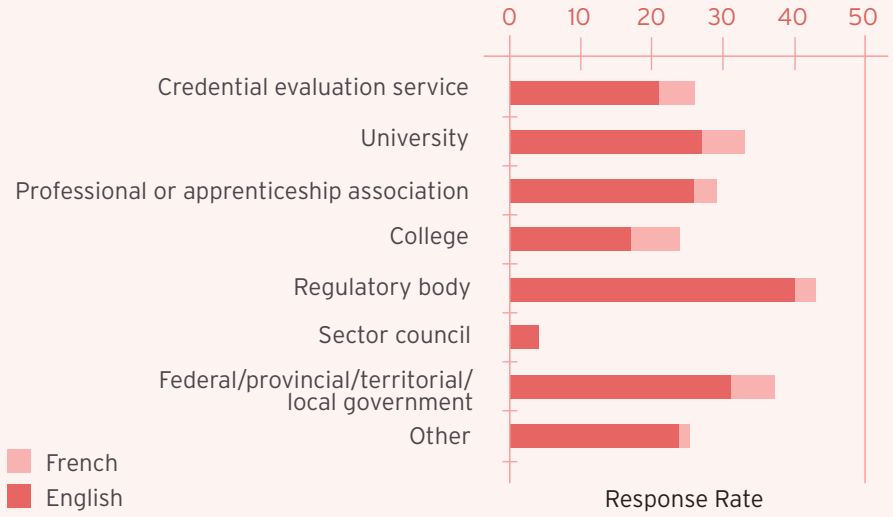
be removed from analysis. The main reason for removal was country of origin; only Canadian answers could be considered, although we received answers from many other countries, the most common being Algeria, Cameroon, Haiti, the United Kingdom, the United States, and Morocco. The responses from these individuals were saved separately before being removed from the overall analysis. Additionally, a few completely blank surveys were removed. This left a total of 138 individual responses (12 French, 126 English).

A certain number of the remaining responses were incomplete. In total, 8 French and 80 English surveys were considered complete. Those surveys considered incomplete were kept for analysis because some questions were still answered. The reason for some individuals not completing the survey is unknown, but it may be because they felt the survey did not apply to them in some way. For example, individuals who complete only a small number of analyses per year may have felt the subject was beyond the scope of their organization. Nevertheless, their role as academic credential assessors, however small, means the answers they did provide are still useful.

Among the 138 surveys analyzed, there were representatives from all provinces and territories except Nunavut. All known areas involving academic credential assessment in some form were represented. As shown in the adjacent chart, 26 respondents (18.8 per cent) indicated they were employed at an academic credential assessment service. Thirty-three respondents (23.9 per cent) were connected to a university, while 29 (21.0 per cent) were from colleges. Twenty-four professional or apprenticeship associations and 43 regulatory bodies represented 17.4 per cent and 31.2 per cent respectively. Thirty-seven (26.8 per cent) respondents were government bodies at some level. Only 4 (2.9 per cent) were connected to sector councils. It is important to note that respondents were asked to indicate the types of organization they represented, and so could answer in more than one category. We also included an "Other" category in this question that received 25 (18.1 per cent) responses. The "Other" responses included a secondary school, immigration services, and a consulting company.

The vast majority of respondents were from organizations that do a very low or negligible amount of academic credential assessments per year and employ fewer than 5 full-time assessors. The largest number of full-time assessors in any one location was 27. Only 9 respondents indicated they employed more than 10 assessors on a full-time basis. A few organizations indicated they also employed part-time assessors, but many of these indicated these were either seasonal, student trainees, or volunteers. Many respondents were unsure of the responses to this question, possibly due to academic credential assessment not being their primary role.

Chart 2 – Type of Organization



The number of full- or part-time assessors was not directly related to the amount of time spent on actual assessment work. Twenty-six respondents (18.8 per cent) indicated that more than half their time was spent on assessments, and of those, 4 respondents indicated that 100 per cent of their time was spent on assessments – 1 from a one-person organization, 1 from an organization employing 1 part-time and 2 full-time assessors, and 2 that employed between 5 and 10 full-time assessors.

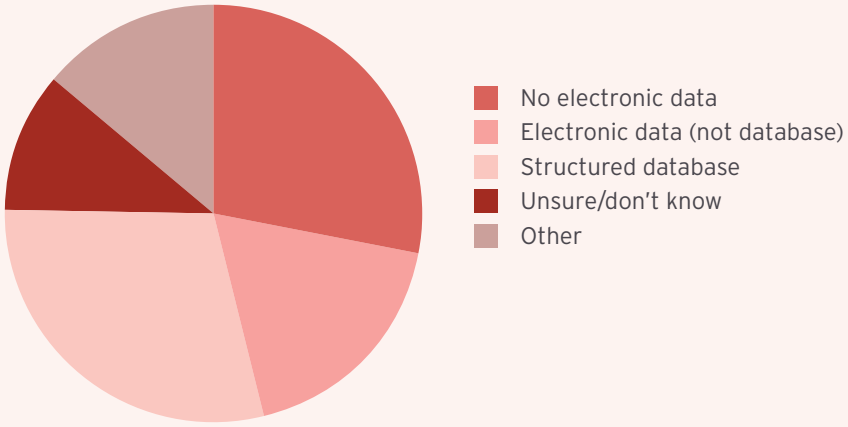
The number of assessments completed per year also varied dramatically, from 0 to 22,500 individual academic credentials. One service indicated it uses either WES or ICAS to complete its assessments. Most organizations indicated they completed around 200 to 300 academic credential assessments per year. Additionally, many respondents indicated they were unsure of how many assessments were completed per year. It should be noted that the question specified academic credential assessment, so assessment of professional or vocational credentials, for example, should have been excluded. On average, the 86 respondents to this question carried out 896 assessments per year (4 per day).

2.2.2 Availability of Data

Participants were asked to indicate what type of data they have on academic credential assessments. Of the 138 initial participants, 98 answered this question. Of these 98, 32 per cent indicated they had no form of electronic data of academic credential assessments, while 19 per cent indicated they had some electronic data but not formatted in a structured database. [Normally, this is either text-based electronic files (e.g., in Microsoft Word) or electronic images (e.g., in PDF.) Only 32 per cent of participants indicated they were from organizations that use structured databases to store their electronic data.

In the "Other" category, some of the answers include a distinction between individual stored data and establishing guidelines for future assessments; a distinction between storing the documentation used to make a decision and the recording of the decision itself; subscribing to external databases for guidance, and a series of searchable files (but not in database form); and two respondents indicated that their database systems were still in development or very new and not yet populated with information.

Chart 3 – Availability of Data on Individual Academic Credential Assessment Decisions



This confused picture becomes clearer and more encouraging when the responses are analyzed according to the sector of the academic credential assessment community:

	MAJOR ORGANIZATIONS				OTHER ORGANIZATIONS			
TYPE OF DATA	Structured Electronic	Unstructured Electronic	Not Electronic	Other	Structured Electronic	Unstructured Electronic	Not Electronic	Other
Assessment Services	6	–	–	–	–	2	–	-–
Professional Bodies	2	1	–	–	13	6	16	8
Universities and Colleges	1	3	–	1	2	6	5	5

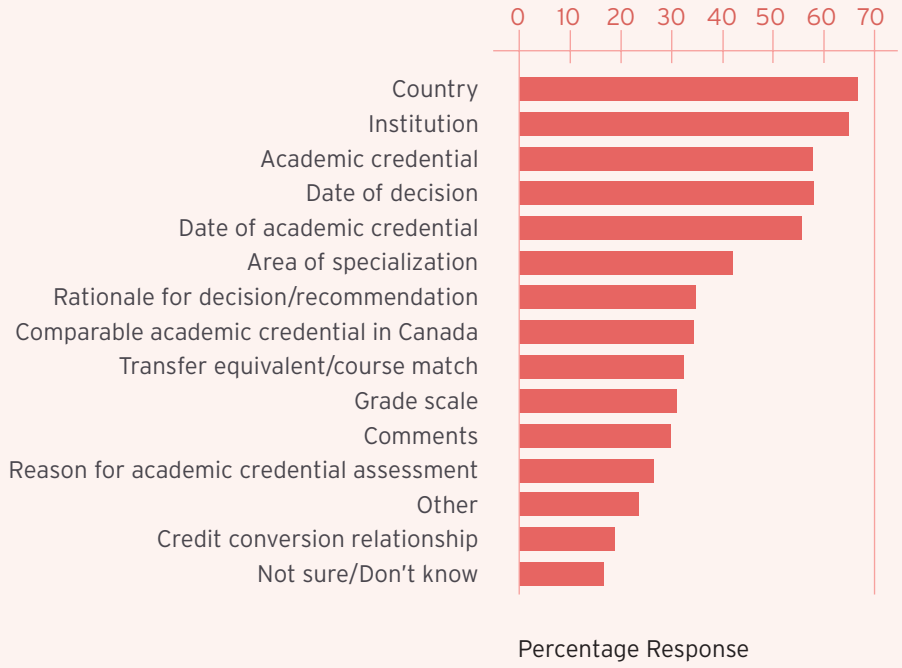
The following can be seen:

- All except one of the major assessment services and professional bodies have structured databases.
- Both the non-major assessment services that responded have unstructured databases.
- Of the 45 non-major regulatory bodies that responded to this question, only 13 (29 per cent) have structured databases. (Note that the total includes two responses of "Unsure/don't know" that do not appear in the table above.)
- It is the assessment services and regulatory bodies that appear most likely to have a structured database that could be used by the proposed tool.
- Of the five major university/college academic credential assessment teams responding, only one has a structured database; of the 18 non-major university/college academic credential assessment teams responding, only two (11 per cent) have a structured database, while 5 (28 per cent) have no electronic data (a remarkably high proportion), implying perhaps 10 databases among all 78 universities/colleges.
- The universities and colleges appear to have a relatively small use of databases, so their involvement would require a large-scale adoption of databases among the remaining 89 per cent (or more) of postsecondary institutions.

2.2.3 What data are stored

In addition to asking what kinds of electronic data participants' organizations have, the data fields stored in these databases are also of interest. Ninety participants responded to this question. The most common data fields were "Country," "Institution," "Academic credential," "Date of decision," and "Date of academic credential," each receiving more than 50 responses. Of these, "Country" was stored by the most respondents, with 60 (67 per cent) responses.

Chart 4 – Detailed Data Available



The lowest response levels were "Reason for academic credential assessment" and "Credit conversion relationship." Even "Comparable academic credential in Canada" and "Rationale for decision/recommendation" are only recorded by 30 per cent.

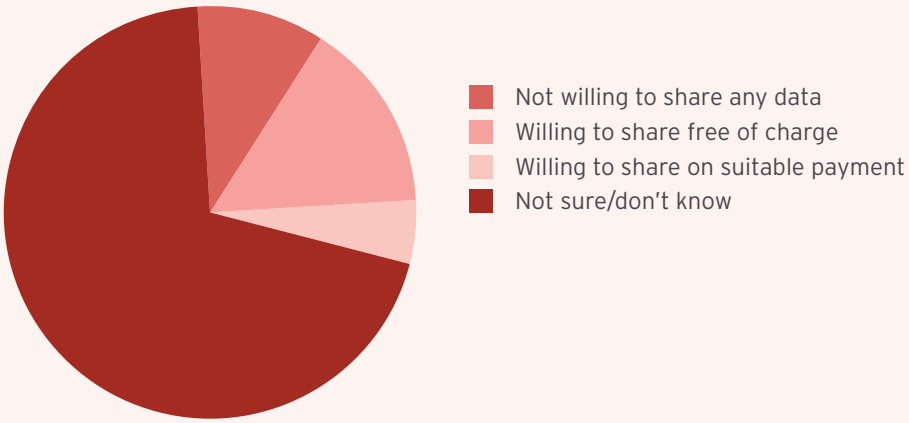
Some of the reasons for answering "Other" were that participants felt the question did not apply to their organization or, as indicated in the previous question, their organization does not store electronic data. Other answers included specific requirements for a provincial/territorial and/or sector career, proof of language fluency, and minimum marks for course transfer requests. Additionally, two respondents indicated that, while they had some detailed data on file, more details were stored in paper storage.

The question of number of decisions stored proved to be tricky. Most participants found it hard to estimate the number of decisions stored by their organization, leading to a large number of "unknown" answers, and one who simply said "lots." The largest estimate was more than 500,000, while most estimates were less than 5,000. The earliest date to which data go back was the 1950s, but most dated between 1995 and 2005.

2.2.4 Willingness to Share Data

Of the 138 respondents, 100 answered the question of whether or not their organization would be willing to share data. Again, this was a difficult question because it would depend strongly on the organization's policy, governmental policy, privacy laws, and consequences of such a decision. It is not surprising, therefore, that there was a large volume of "Not sure/don't know" responses to this question (66 per cent). Of the 34 per cent of participants who felt able to answer this question with certainty, the most common response was that they would be willing to share free of charge (representing 16 per cent of total responses).

Chart 5 - Willingness to Share Data



We included a comment section to this question to get more detailed reaction. One of the main difficulties would be confidentiality and the Freedom of Information and Protection of Privacy Acts. Respondents also said they would be willing to share if the use of the data was explicitly stated and conformed to their organization's policy, but it would have to be discussed and agreed with the leaders of the organization. Some organizations already publish their data on-line.

There is no expressed antipathy to sharing from the major organizations (and little from the other organizations), but most do not yet have a view. Only 2 (of the 9 responses) from the major assessment services and professional bodies appear to want to share data. This is a very low proportion and may prove the stumbling block, unless the undecided majority can be persuaded.

	MAJOR ORGANIZATIONS			OTHER ORGANIZATIONS		
	Willing	Not Willing	Don't Know	Willing	Not Willing	Don't Know
ASSESSMENT SERVICES	2 (33%)	–	4 (67%)	2 (100%)	–	–
PROFESSIONAL BODIES	–	–	3 (100%)	11 (24%)	3 (7%)	31 (69%)
UNIVERSITIES AND COLLEGES	3 (60%)	–	2 (40%)	1 (5%)	3 (15%)	16 (80%)

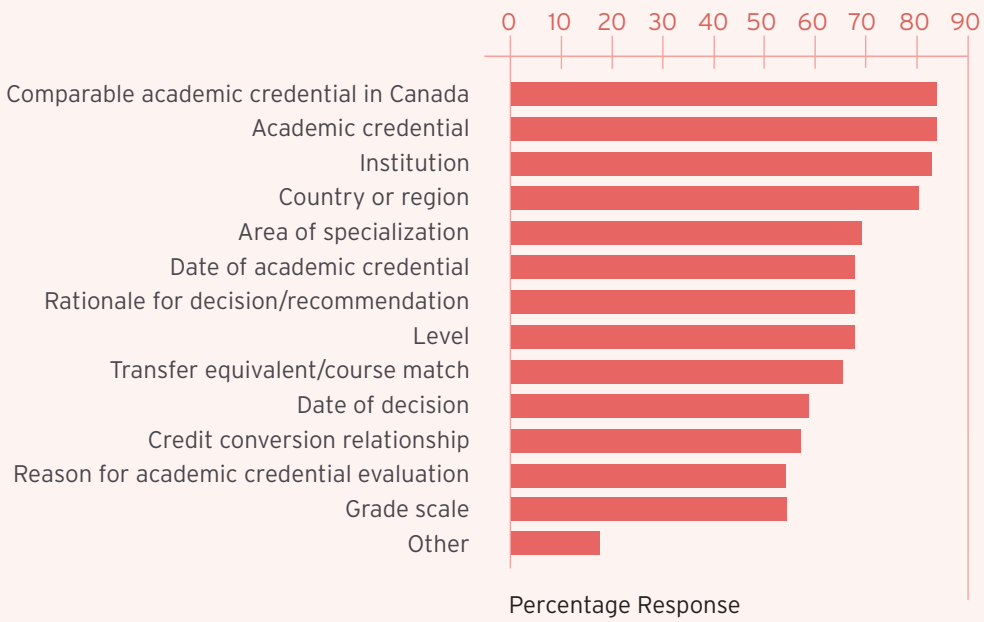
2.2.5 Interest in Accessing Data

In contrast to the reservations about making their academic credential assessment data available to other organizations, there was substantial support for accessing other organizations' non-personal data. Eighty-one (59 per cent) of the 138 respondents said they would be interested in accessing other organizations' data. When asked why they would not be interested in accessing data, some respondents indicated that their organization already has all the data required to make assessments, while others mentioned the specificity of their area of assessment, querying how much information would be useful to them.

There was also a breakdown of which data would be of most interest to access. Eighty-one of the 138 respondents answered this question. Respondents were asked to select all data that they would be interested in accessing from other organizations. Unsurprisingly, the two data items that would be of most interest are the academic credential and the comparable Canadian academic credential (both at 84 per cent). Overall, most data items received high interest levels, all more than 50 per cent, indicating that any information made available would be of interest to a fairly large population of assessors.

Again, we had an "Other" category for this question. Some of the answers to these questions include the status of the institution, specific sector degree course information from specific countries, prior learning assessment and recognition (PLAR) assessments, an equivalency table for international degrees, current academic program being sought by the applicant, and syllabus information and sample exams.

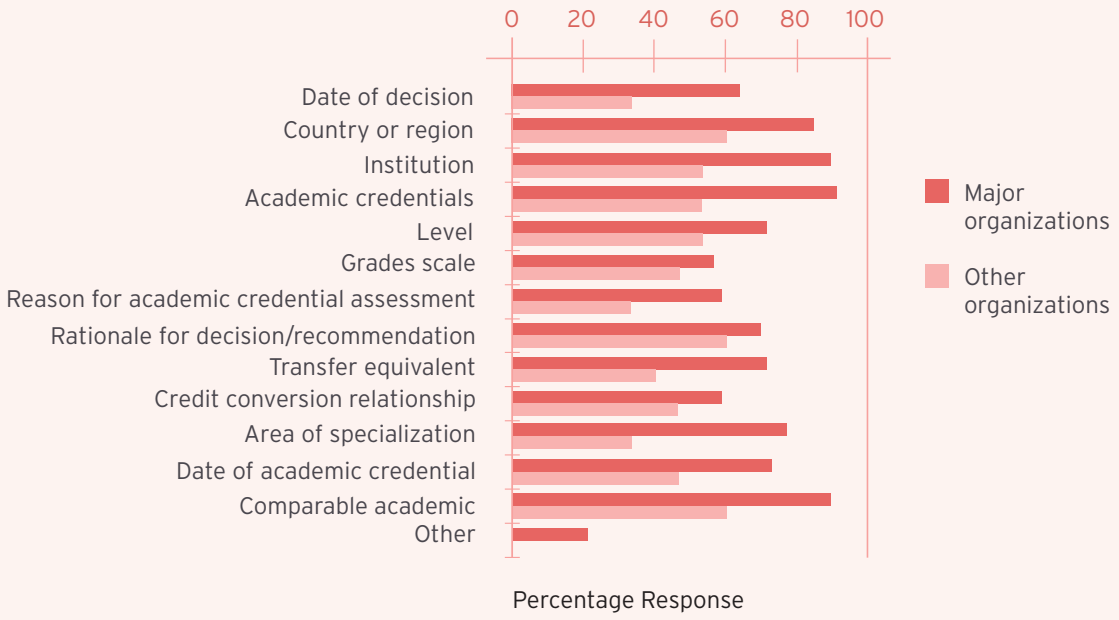
Chart 6 – Interest in Detailed Data



The interest in accessing other organizations' data is strong across the whole academic credential assessment community:

	MAJOR ORGANIZATIONS		OTHER ORGANIZATIONS	
	Wish to Access Others' Data	Not Interested	Wish to Access Others' Data	Not Interested
ASSESSMENT SERVICES	6 (100%)	-	2 (100%)	-
PROFESSIONAL BODIES	2 (67%)	1 (33%)	34 (76%)	11 (24%)
UNIVERSITIES AND COLLEGES	4 (80%)	1 (20%)	14 (70%)	6 (30%)

Chart 7 – Interest in Access to Detailed Data: Major Organization vs. Other Organization



All the major assessment services and all except one of the major professional bodies and one of the major universities and colleges responded positively. There is a similarly high level of interest in the non-major respondents of all types. This is a very strong demand and contrasts markedly with the indecision about whether to share.

2.2.6 Funding

Again, the question of funding proved a difficult one for many participants. Eighty-six participants answered this question, but 37 (43 per cent) answered "Not sure/don't know." Of the rest, the highest response – 27 (31 per cent) – was that the entire operation should be publicly funded, while the smallest number – only 4 people (5 per cent) – was in favour of both operational costs and remuneration for data providers. It should be noted that the "usage charge" described was not specified, so it could have been interpreted as per access, per person, or per organization.

Among the answers for "Other" was a suggestion that the aim of the sharing should dictate the funding; if the goal is to have this data for public use, it should be publicly funded. Another respondent mentioned that the inclusion of a fee for use could make individual educational institutions hesitant to use it. Another suggestion was that public funding should not be used at all – it should be a privately funded venture. This had not been included in the options. Another respondent mentioned that both data providers and those accessing the data should provide some form of payment, as they would both benefit from the sharing.

Chart 8 - Preferred Funding Options

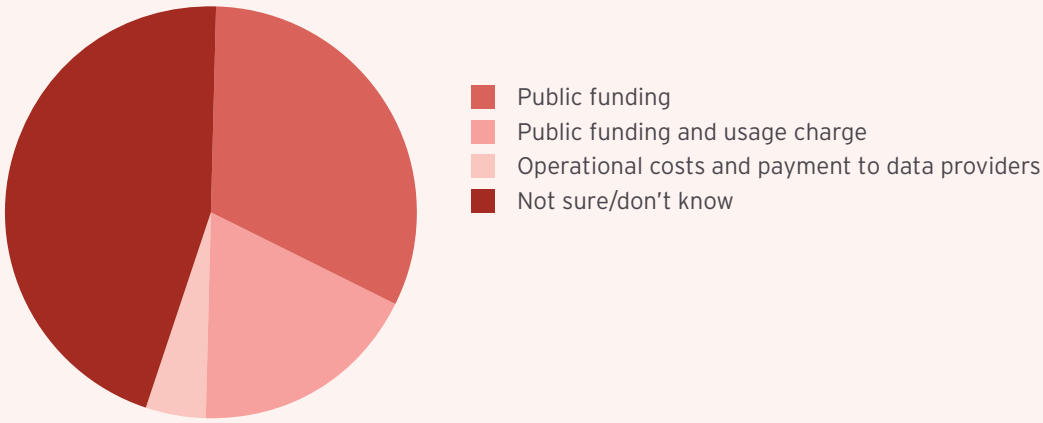
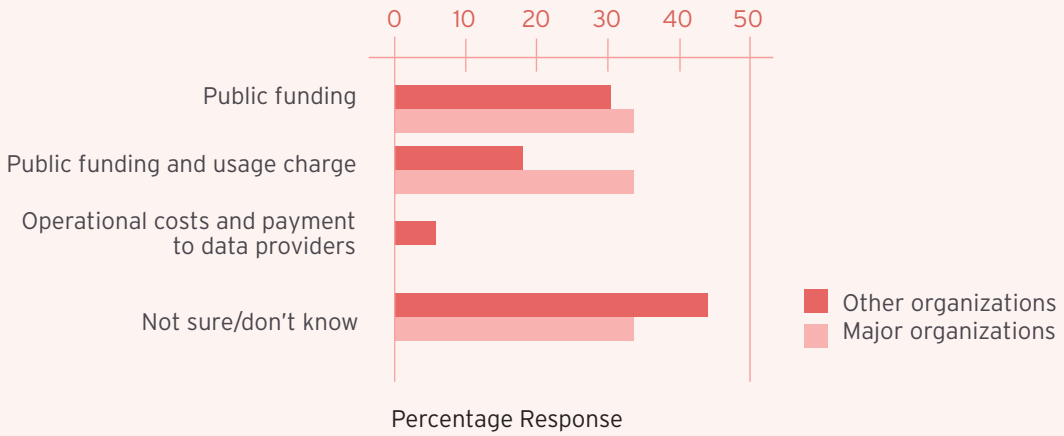


Chart 9 - Preferred Funding Options: Major Organizations vs. Other Organizations



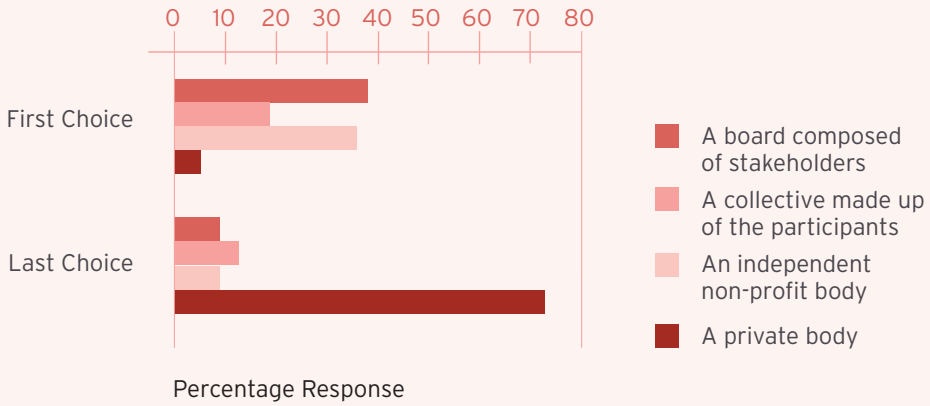
2.2.7 Hosting

Finally, we asked participants to state where they believed the proposed on-line tool should be hosted. Again this was a difficult question, with nearly half of the 90 participants who answered this question responding that they did not know.

As can be seen on the graph, participants' preferences were split between a board composed of stakeholders and an independent non-profit body as a first choice (39 per cent and 36 per cent respectively). It is important to note that the overwhelming second choice (not shown) was for a collective made up of the participants. Additionally, an overwhelming majority (70 per cent) of participants indicated that a private body would be their last choice from the options provided to them.

In the "Other" category, answers included some participants who pointed out that CICIC may not be the best choice to host the service despite the fact that the question implied that fact. Additionally, there was an emphasis on choosing members of the hosting board carefully to include a large amount of expertise in the area of academic credential assessment, as well as individuals from both private and government organizations. Relying on volunteers, one said, could lead to mediocre results.

Chart 10 – Hosting Choice



2.3 Key Informant Interviews

In addition to the e-questionnaire, telephone (and some face-to-face) interviews were carried out with representative key informants. The interviews provided the opportunity to explore issues and opinions in greater depth, and to understand the reasons behind their answers to the questionnaire. The interviews shared the same topics as the e-questionnaires and provided a rich qualitative source to supplement and clarify the e-questionnaire statistics.

The only group for which we were unable to find any key informant was the employer performing academic credential assessment in-house, in spite of repeated attempts by both CICIC and the consultants. This leads us to believe that there are few if any employers who assess academic credentials in-house; instead we believe they subcontract any such work to assessment services.

In the end, a total of 17 interviews were conducted. (See Appendix III for the complete list of informants and their organizations.) Again it should be noted that our

informants were answering in a personal capacity rather than as a formal spokesperson for the organization, and they often made it clear that on a particular point it would be the (unknown) views of the governing body that matter. A note of the interview was made by the consultant and sent to the interviewee afterward to confirm it was a full and correct record, and to give the interviewee an opportunity to amend, expand, or clarify. All but one of the interview records have been confirmed in this way (with gratifyingly few corrections). For this analysis, all data are reported anonymously, in accordance with our commitment to the key informants.

2.3.1 Benefits

All those interviewed could see benefits to their organization from sharing data. The main benefits were sharing time and effort across multiple sources, not repeating work already done by other agencies, and saving the cost of research. Some people mentioned that it would be difficult to say exactly how it would be useful without knowing exactly what sort of information would be available and in what form. All but one of the 17 people interviewed said they would be interested in accessing data made available.

Specifically, data on education systems, institution status, rationales for decisions and validity of certain academic credentials, translations of academic credentials, and country and school system expertise were the most commonly mentioned data of interest. When asked if the project should continue, 12 said yes, although some qualified it by saying that the goals should be clarified – it should at least progress to a stage of further discussion. Of the five who said it should not proceed, none believed there should be no form of sharing whatsoever. Rather, one emphasized that the Country Profiles project should get more priority; one said a repository of individual decisions would be of less interest than a synthesis of results, resources, and methodologies; and two others said it needed adjustments and more consideration before proceeding.

2.3.2 Databases Used

Many organizations mentioned that they already used several databases and on-line shared resources, some available free and some pay for use. These included:

- United Kingdom National Academic Recognition Information Centre (UK NARIC)
- Netherlands Organisation for International Cooperation in Higher Education (NUFFIC)
- National Office of Overseas Skills Recognition, Australia (NOOSR)
- American Association of Collegiate Registrars and Admissions Officers (AACRAO)
- WES, which includes a publicly accessible on-line database
- the educational guides produced by IQAS

Some interviewees suggested that a Canadian database giving Canadian equivalencies by province/territory would be very useful. Of the 17 people interviewed, all but one said they had some form of electronic data storage system (and the exception was just developing a storage system). Thirteen described their data as being in databases. Three mentioned the use of an internal "wiki" containing policies, grade scales and grading scales, country and educational information, and other data sources relevant to everyday decision processes.

2.3.3 Items Stored

The type of data stored by organizations varied widely between organizations – educational institutions tended to keep only basic information regarding courses applied to and acceptance decisions. Organizations that had a wider focus also tended to have more detailed data on file, including country of origin, institution name, number of years of study, recognition status of the institution, and what the outcome of a course would be (what careers could be accessed by a graduate in such a program). The earliest data collected was from 1970, while most originated in the late 1990s–early 2000s era.

2.3.4 Data Structure

About half of those contacted said that while the applicants' personal data were kept on file, it was easy to separate them from the rest of the data. One said removing personal information would be labour intensive with their current system.

2.3.5 Funding

Many organizations mentioned cost recovery as a key issue in the decision to share information. The effort both in time and finances involved in preparing data to be shared would be a large deciding factor, and the organizations we interviewed mentioned they did not have the resources to commit to such a project without adequate compensation.

When asked what kind of funding would be appropriate, the vast majority preferred federal funding to start the project, with some form of pay-per-use scheme to recuperate the fees on an ongoing basis.

2.3.6 Hosting and Quality Assurance

The duty of hosting the proposed tool was strongly agreed to be the responsibility of CICIC as a pan-Canadian body with experience in the area. However, some individuals mentioned that both funding and hosting should depend on who is the end user and what the benefit is to the government (as opposed to private investment for private benefit).

We asked all those interviewed to comment on what kind of quality assurance measures should be placed on the process of collecting data to make this information more useful. Most found this a very difficult question but came up with several different suggestions. Several mentioned that there would have to be unanimous agreement from all stakeholders — first when deciding on rules and upload rights and then on any changes made after that. Additionally, several people mentioned a form of gatekeeper — someone, not necessarily affiliated with any organization, who would oversee the addition of any new piece of data. The quality assurance framework (QAF), being developed in a separate project for CICIC under the same initiative, was also mentioned; it should be applied to all new data, said one interviewee, while all previous data should bear a note saying the QAF had not been applied.

2.3.7 Obstacles

The informants were also relatively consistent when asked about potential major obstacles that could prevent any further progress from being made in this project. The main ones mentioned were a lack of cooperation between organizations and a lack of willingness to share data. A couple of informants also mentioned that a loss of government funding or a steep economic downturn could halt this project completely. There were also several mentions of the fact that, at this point, the objectives and goals of this project were not clear and that they would need to be clarified and made obvious before absolute decisions could be made or the proposal could be made to investors and government.

2.4 Academic Credential Assessment Databases

2.4.1 Categories of Data

The most substantive information on the decision data possessed by stakeholders and their availability for sharing via an on-line system came primarily from the 17 key informant interviews (which included interviews with all the major organizations). However, the e-questionnaire provided valuable additional insight into the large number of smaller organizations. Currently, there is nothing that resembles any sort of consensus among the organizations with regard to data storage, items stored, or data structure.

We have identified six categories of data that exist at present:

- storing the **outcomes of individual academic credential assessments** (often with copies of the supporting evidence);
- storing the outcomes of **individual rationales** for each academic credential assessment decision;
- listing accepted **model decisions or precedents** that should be followed;
- information on **degree mills, fraud, etc.** (please note that some respondents reported that when fraud was discovered, no record was kept of the assessment. Several respondents requested finding ways to share information on fraud. This might be an on-line discussion forum or wiki rather than a database or tool to access databases);
- **sector profile** information: detailed information on foreign academic credentials related to the profession being regulated (similar to the country profiles, but with a focus on an occupation or sector);
- **country profile** information (this is being set up for CICIC under a sister project and will not be discussed further).

In general, most of the organizations are using their electronic tools to store electronic versions of client records and/or store assessment results and client data.

In addition to ACAS, there are other significant databases housed in the Quebec Admissions Services (suggesting that other provinces/territories with central admissions services may also have them), as well as certain pan-Canadian bodies such as the CCTT (which maintains a qualifications database on behalf of the provincial/territorial societies). These organizations, and ones similar to them, each possess thousands of decisions that would require a common data schema to make them searchable and to produce aggregate results.

An important point identified by the e-questionnaire was the fact that many professional bodies (including both certifying bodies and professional and trade organizations) also possess databases of records, much more narrow in scope than the larger ones, but with much greater depth in terms of the professional discipline. Many universities with significant international student populations also possess databases of information on the countries and institutions where they recruit for the academic credentials and courses that align with their academic offerings. These organizations possess anywhere from several hundred to a few thousand decisions that may or may not be compatible with a future data schema.

2.4.2 Data Storage

As mentioned in previous sections, organizations report holding data in paper-only, paper/electronic, and electronic-only formats depending on their own policies and procedures. For the purposes of this feasibility study, we shall consider only existing electronic formats since other formats would require a major exercise to make them into an accessible electronic format. All of the services (with the exception of ICCAR, which has not yet begun operation but will store data electronically) hold electronic information on their decisions. Many also hold electronic and/or paper copies of documents submitted by clients in document repositories. In addition, many of the services are currently developing new databases and processes that are scheduled to go into production within the next year.

For those organizations holding material in electronic format, the tools used to store it include the following:

- Microsoft Access
- Microsoft Excel
- FileMaker Pro
- Microsoft Word
- Microsoft Dynamic CRM (Client Relationship Management)
- Adobe PDF and/or Microsoft Word copies of client documents stored on a server
- Banner
- Other custom-developed systems

With the possible exception of the custom-developed systems, all of the above software can be used to share data.

2.4.3 Data Structure

While the software should permit sharing, there are two issues brought up by the respondents that have an impact on the practicality of this:

1. There is currently no common data standard for academic credential assessment. The adoption of a data standard would facilitate the mapping of one organization's data onto another and thus enable searching and sharing of data.
2. Many of the systems mix personal and academic data in the same field, requiring organizations to separate the two types of data before sharing could occur, in order to avoid issues of privacy.

2.4.4 Data Quality

Some organizations have identified quality-control issues with some of their earlier decisions where institutional memory ensures that these questionable decisions do not form part of future decisions.

Given that these insights are not reflected in the data management system, searching and sharing the data would have to address these quality issues. Given these realities, it is important to identify the key data sources that should be considered for inclusion in such a system and in the development of data standards.

2.4.5 Summary

All organizations indicated that decision collections came from a significant investment of resources – an ongoing investment that many of them struggle to maintain. This needs to be taken into consideration in any discussion of a common data structure or improved quality assurance of past decisions.

In short, we have a number of organizations with fairly similar core data, using different tools, that have different degrees of personal data mixed into decision data, and with various pieces of supplemental data included in the records. There are certainly enough data that a searchable index could be created, but the actual cost-benefit analysis would require additional research and a proposed allocation of resources to be useful.

2.5 Attitudes to a Shared Tool

Sharing data was a difficult question for most informants since they would not be the actual decision makers – such a strategic decision would have to be made by the board of directors. Additionally, ownership and author's rights, as well as ensuring personal information was protected, meant many people were cautious about being too enthusiastic. Another condition that would have to be satisfied for many was that of equal participation among members; if only one or two organizations were inputting data, but many were receiving the benefit of added data, then it could lead to an unbalanced system. For some of those interviewed, the nature of the data requested would depend on how much could be shared; policies, information on countries, and other general information would be easier to share than decisions and rationales. Two of the major organizations said they would be willing to share all data if certain conditions (such as regulation on who would have access and exclusion of personal information) could be met.

As mentioned in Sections 2.1 and 2.2, there was a large difference between the interest in accessing data and the willingness to share. During the interviews, and reading comments in the e-questionnaire, it became evident that the main reason for this difference was that the decision to share was one that could not be taken lightly, whereas accessing new data did not require much of a commitment on the part of the individual. The decision to share data must be made at the level of management or board of directors and will be based on what information is requested, what form it takes, and who could have access. An additional issue would be that of privacy, since many organizations are subject to strict privacy laws that could render individual decisions impossible to share, even if identifying information were removed.

In order to increase the willingness of organizations to share their data, there are several conditions that must first be met. First, and perhaps most important, there must be procedures in place that can conform to federal, provincial/territorial, or organizational privacy laws. Outlining procedures to purge data of personal identifiers will make it more likely that boards of directors or management will be willing to make some or all of their data available. Additionally, financial compensation is necessary for many organizations, as they are already working beyond capacity for their size. Another issue that would have to be explicitly laid out to get agreement from as many organizations as possible would be to clearly identify who would have access to the data. Some individuals expressed concern that the data would be made available outside of the assessment community, enabling individuals to essentially conduct their own assessments. However, since some of this information is already available to the public at cost (through services such as WES), this may not be as large an issue as that of privacy rights.

In general, the main concern of individuals across the majority of organizations is the lack of clarity of the goals of this project. Providing clear goals and the opportunity to discuss among stakeholders will be the best way to get agreement to share information from the largest number of organizations.

In terms of payment and hosting arrangements, the main consensus was that funding and hosting responsibilities should depend on who the intended audience for the on-line tool will be. Most individuals believed (correctly) that the overall goal was to create a pan-Canadian resource accessible to all those connected to the academic credential assessment community. Therefore, the most popular response to the question of funding, taking into account both the e-questionnaire responses as well as the interview responses, involved a combination of initial start-up funds from the federal government with a reasonable yearly access fee to create a self-sustaining tool. There was also a suggestion from several individuals that this tool could eventually be of global interest, meaning yearly fees could be obtained from a much larger community. As for hosting, the majority of interviewees and e-questionnaire respondents said that CICIC or ACESC should host the tool, as they already have a pan-Canadian mandate.

In determining what data would be of most interest to the major organizations as opposed to the other organizations, it is interesting to note that the major organizations were less interested in detailed data. However, the difference in response rate is much smaller for rationales of decisions, suggesting that the major organizations are more interested in why a specific decision was made, using what data, than the actual decision itself.

In terms of funding, the major organizations slightly preferred initial public funding combined with a usage charge over all public funding. The other organizations were more undecided, but with a preference for simple public funding.

The preferred management body was asked in both the e-questionnaire and the key informant interviews. For the major organizations, five preferred "a board composed of stakeholders" as either their first or second choice, and four responded with "a collective made up of the participants" as either first or second choice. From the interviews, all three of the ACESC members for whom we did not have an e-questionnaire, answered this question with "CICIC." This suggests that a neutral body, such as CICIC, with a pan-Canadian mandate and contacts, would be best suited for this role.

Chart 11 – Interest in Access to Detailed Data: Major Organizations vs. Other Organizations

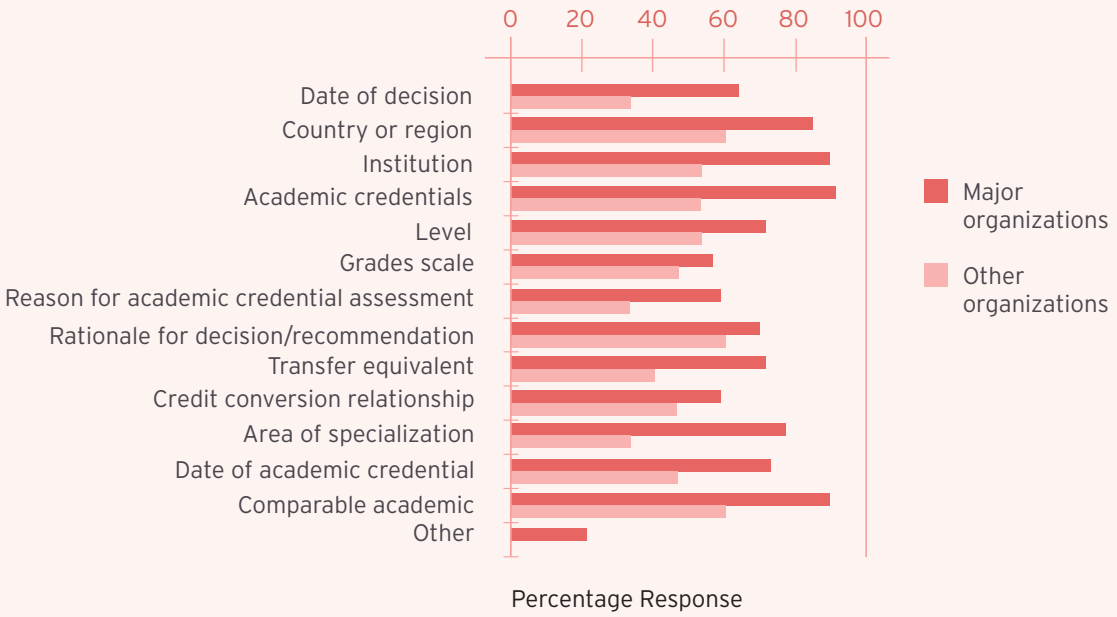
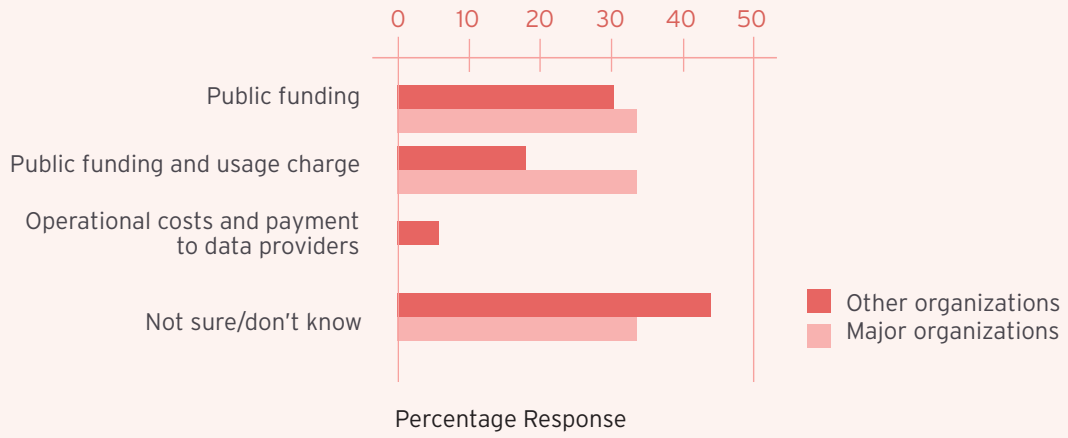


Chart 12 – Preferred Funding Options: Major Organizations vs. Other Organizations



3. CONCLUSIONS AND RECOMMENDATIONS

The development of this tool will result in greater collaboration on the part of the Canadian academic credential assessment community.[6]

6 The recommendations are those of the authors and do not necessarily reflect the opinion of the Council of Ministers of Education, Canada or the Canadian Information Centre for International Credentials.

3.1 What to Share

The aim of the project is to assess the feasibility of implementing an on-line service to share academic credential assessment results, resources, and methodologies among members of the community in Canada. First, we consider the six types of data (see Section 2.4.1 above) that might be shared.

CATEGORY OF DATA	ADVANTAGES OF SHARING	DISADVANTAGES OF SHARING
1. INDIVIDUAL DECISIONS	• Most organizations already have this. • Most basic data. • Permits decisions to be compared.	• Issue of removing personal data. • Does not explain reasoning. • Quality is unknown and variable. • Common academic credentials could give unmanageable volume of results.
2. INDIVIDUAL RATIONALES	• Would facilitate consistency. • Permits decisions to be justified.	• Issue of removing personal data. • Only some organizations have this (as part of their audit trail). • Quality is variable. • Common academic credentials could give unmanageable volume of results.
3. PRECEDENTS	• No personal data. • Would highlight inconsistency. • Most efficient database to use. • Permits decisions to be justified.	• Some organizations see this as their source of competitive advantage and may be reluctant to share.
4. FRAUD	• Important subject where sharing could be really helpful. • Could increase speed and breadth of dissemination.	• Better suited to a forum or wiki than a database. • Possible libel or legal liability. • Difficult to maintain.
5. SECTOR PROFILES	• Several professional bodies already have this. • Detailed sector expertise of professional bodies could ensure quality. • Could be combined with a database of precedents.	• Only some professional bodies already have a sector profile database.
6. COUNTRY PROFILES	• Already under construction by the Country Profiles project.	

On the basis of this comparison, sharing sector and precedents data appears to offer more benefits and present fewer disadvantages than the alternatives. We understand that country profiles data and sector profiles data also contain information on precedents, providing the maximum benefit from the investment.

The Country Profiles project is already showing a way forward on sharing information from country profile databases and might also offer an appropriate forum to share information on fraud.

3.2 Obstacles

There are five key obstacles preventing immediate agreement to share academic credential assessment data:

1. uncertainty about what is being proposed;
2. the lack of a compelling benefit to potential users;
3. a majority of people being undecided, even among the major organizations;
4. the condition of the organization's data, both structure and quality;
5. concerns relating to legal restrictions (data originally collected for one purpose, but permission not granted to make them available to others).

We do not believe any of these obstacles are insurmountable in principle, given enough time, money, and management will. To generate support and justify effort, it is essential that more benefits can be identified for any participating organizations.

Beyond these key obstacles, organizations also highlighted the following issues:

- concerns related to information sharing and competitive disadvantage relative to other organizations (e.g., *could sharing our information cause us to lose competitive advantage?*). This did not appear to be a big issue as most of the organizations see themselves as fulfilling a public service and are not in competition;
- lack of funding/technical/human resources to permit participation in such an endeavour;
- linguistic challenges in reading/making use of the decisions from some jurisdictions (e.g., *will we be able to read and incorporate decisions in other languages?*);
- different areas of focus (e.g., *we assess courses, you assess academic credentials, and vice-versa*);
- concerns related to currency of data and quality assurance related to past decisions (e.g., *our data still include decisions that have now been superseded*).

These obstacles may mean that not every organization will want to take part in any trial. However, the additional information resulting from a trial is likely to reduce or remove many of the obstacles.

3.3 Opportunities

In contrast to the obstacles, there are a number of opportunities that justify continued exploration of sharing data. Any sort of trial project should aim to:

- increase positive support among undecided organizations;
- demonstrate a positive return on the efforts of participating organizations.

The opportunities identified in this study include the following:

- *resource savings* – A number of the organizations are sharing information on a bilateral, provincial/territorial, or sectoral basis with clear ongoing benefits: saved staff time and enabled quicker decisions. We have heard of no collaboration being stopped because it was not value for money.
- *potential quality assurance benefits* – Again, respondents indicated that they purchased or shared information from other organizations or sent clients for assessment by another organization and incorporated the results into their decision data.
- *greater collaboration on the part of the Canadian academic credential assessment community* – This was seen as a positive outcome.
- *enhanced image of Canadian academic credential assessment* – in Canada and worldwide.

The structure of the academic credential assessment community, with a handful of major organizations responsible for the majority of academic credential assessments performed each year, means that only a relatively small number of major organizations are needed to achieve critical mass. Not surprisingly, the major organizations also appear to have the largest and most sophisticated databases, as well as the largest number of academic credential assessors. While five of the major organizations expressed willingness to share data, the remaining nine were "Not sure/Don't know" (see Section 2.2.4); we did not find strong enthusiasm or commitment, but nor did we find hostility.

3.4 The Way Ahead

As this study was first envisioned as a feasibility study (*can we?*) and no institutional obstacle has emerged that sufficient application of management effort, time, people, and funding could not resolve, it is safe to say that the development of such a decisions search tool is possible, provided there are no technical obstacles. However, we have not been asked to establish the technical feasibility – whether the principal existing databases have sufficiently compatible structures that a tool could be designed to extract useful comparable information, and this question has not been conclusively resolved.

The feasibility study also investigated what one might term "desirability" *(should we?*). We do not have the data to make a clear business case, but the evidence from the more limited sharing that is going on implies that it is worthwhile, and we would expect this to be so. However, opinion among the academic credential assessment community is currently largely undecided. Without a clear demand for such a service from the potential clients, there cannot be any certainty that it would be adopted.

It should be noted that in the case of both the Walkman and the iPod, focus groups clearly identified both items as unnecessary and of little interest to them, with both going on to be adopted by millions of users. It is possible that because of the preconceptions of potential clients, the benefits of an innovation may not be seen until the innovation is available.

We have considered three ways forward:

1. proceed with full-scale implementation
2. do nothing
3. trial

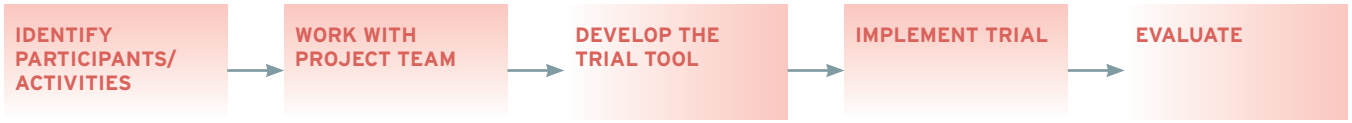
At this stage, we advise that the obstacles and uncertainties are too severe for **full-scale implementation** to proceed. The variety of opinions, even among the major organizations, does not provide adequate consensus for the focus and scope of a major project. Any collaborative venture requires a firm basis, clear scope, and strong participant support.

Doing nothing, or doing nothing yet, is certainly a valid decision based on the findings of this study, but the consultants are reluctant to recommend this in view of the potential benefits outlined above and the importance to Canada of improving the assessment processes. If this is so decided, we recommend that the decision be reviewed in two years' time when it is likely that the Country Profiles project will have made good progress, there will be better understanding and experience of sharing some data, and some of the problems presented above may have reduced. In addition, steps could be taken to improve some of those conditions (e.g., around data standards, coding systems, data quality).

We, therefore, recommend a **trial** using a step-by-step approach, with the main purpose of exploring and resolving the key issues. It would need the commitment and enthusiasm of a small group of pioneers. Their task would be to construct and operate a working prototype or demonstrator, using live data. They should not be discouraged by early setbacks, but should persevere, seeking out and providing solutions to the difficulties.

Around five or six participating organizations would be ideal – the majority of which should be major organizations because of the volume and more advanced condition of their data – but they could include one or two smaller bodies and could come from any segment of the assessment community. If successful and popular, the trial could be progressively expanded in both participants and functionality.

The following simple flowchart illustrates the concept:



3.5 More About the Trial

We recommend that the initial emphasis be on sharing some major organizations' precedent databases (including compatible information stored in country and sector databases). This will give the best return for the investment on creating the tool in terms of amount of data shared, number of assessments performed each year, number of assessors involved, and public perception. It will be valuable to include some of the other organizations as well in order to demonstrate that the tool is feasible for them, too.

The trial could consist of one or more of the following:

A. Create a **standard specification** for a database of precedents (or decisions with rationales) that would enable a very simple Web-based tool to access the data since the format is the same for all. Each organization would have to build (or adapt) its own database, possibly with additional aspects beyond the standard core. It would mean that all new decisions would be stored in a compatible format, and some organizations might be willing to convert their old data and enter them into the new database. Part of the price of participation could be the creation of a structured database of decisions with rationales (if the organization does not yet use one). The use of a structured database would be a significant step forward in improved efficiency and quality for those organizations lacking them, and it would have a significant impact on the quality of decisions made.

B. Develop a more **sophisticated Web-based tool to access existing databases** (with no need for restructuring), search for and extract the desired precedents (or decisions with rationales), and present them to the academic credential assessor. The tool would be designed to access as many of the major organizations' databases as possible. The intention would be that no change would be needed to their existing databases, but the tool would need to have a mapping for each database onto a standard generic structure. This would require little work in adapting existing databases, but they would each need their own map to tell the tool where to find each item of data.

C. Develop a **standard database application** that can be supplied to any assessment agency and that they can adopt and use henceforth. The database would be compatible with both the simple Web-based tool or the more sophisticated version so that any organization using it would be able to share. This could be attractive to all those organizations that do not currently have any database and to those planning to upgrade their database. All new decisions would be stored in a compatible format, and some organizations might convert their old data and enter them into the new database. *This option is in addition to either A or B above.*

Option A will require more effort by the major organizations. Option B will require more effort by the software developers and is probably preferable. Option C could be deferred to a future phase, although in the interim, more organizations will be investing in their own new databases.

We recommend that any database specifications and database software created for the trial should use an open data format in order to ensure cost-effectiveness and future compatibility while, of course, ensuring full security for the contents.

The trial should be undertaken in conjunction with the Country Profiles project. Many respondents indicated that country and institutional data were of primary importance to them, and that this information would greatly enhance the value of any decision data. Combining the two trials would create synergy and potentially add greater benefit

than two individual trials. By providing a space within the country profile for participating organizations to publish or link to their structured data in the manner of a portal, there would be a greater possibility that both trials would succeed and encourage other organizations to identify potential benefits and share their data, too.

The process for trial participants should be as follows:

1. Review the databases held: list of fields and their formats, what fields could be shared/compared (scope of data), how a Web-based tool might access the fields to search and then copy data.
2. Agree on what data will be shared and any characteristics for adding future data to the sharing.
3. Agree on which options (A, B, C) to pursue and estimate resources required.
4. Agree on institutional arrangements to be tried out as part of the trial.
5. Develop the monitoring/assessment strategy. (What are the likely benefits? How can they be measured?).
6. Develop the prototype tool.
7. Modify the existing databases if required (Option A).
8. Use the tool and monitor its impact.
9. Evaluate the trial and estimate the benefits.
10. Report to the community.

3.6 Recommendations

The data collected through the e-questionnaire and informant interviews provides a picture of organizations involved in the academic credential assessment community in Canada who are experiencing the following: increased demands for service; increased scrutiny to ensure that decisions have been made with rigour; and increased pressure to do both of these with current or reduced resources. It is times like these that provide the opportunity for change and innovation, and CICIC has identified a number of projects wherein the academic credential assessment community can increase its commitment to quality, its effectiveness, and its level of service.

We are, therefore, recommending the following:

- The Canadian academic credential assessment community should continue discussing cooperation.
- A limited trial should be developed and implemented to provide more information on benefits.
- The trial should include those major organizations interested in taking part, together with perhaps one smaller regulator organization and one university or college.
- The trial should concentrate on sharing precedents (including compatible information stored in country and sector databases).
- The trial should be undertaken in collaboration with the Country Profiles project.
- The trial process should follow the 10 steps set out in Section 3.5.

APPENDIX I: E-QUESTIONNAIRE

There are potential quality assurance benefits to sharing and incorporating other organizations' assessment results and methodology.

Canadian Academic Credential Assessment Shared Resources On-line Tool

The purpose of this questionnaire is to assemble information on the organizations that perform academic credential assessment, the individuals who work for them, the databases they use, their attitudes to sharing information, and their attitudes to training.

This information will be used as part of a feasibility study for an on-line tool to review past academic credential assessment decisions related to foreign academic credentials. Whether or not you believe such a tool would be beneficial, it is essential that we hear from you to ensure that the full range of views is known.

It is important to remember while answering the questions that:

1. The tool would only use electronic data – there are no plans to digitize paper records.
2. The tool would not be a central database, but would access selected data held in already existing databases under carefully agreed protocols.
3. The system would be hosted by the Canadian Information Centre for International Credentials (CICIC) at the Council of Ministers of Education, Canada (CMEC) to serve the Canadian academic credential assessment community.

Most questions in this survey are multiple choice, with either one or more options available to be selected. Additionally, there is space available following most questions for more detailed responses, alternative responses, or comments.

All data collected will be analyzed anonymously, and will not be shared externally. The data will only be used for the purposes of this feasibility study.

We recognize that not every respondent will be able to answer every question. For each question, please provide the best answer that you can. If you can not or choose not to answer particular questions, please select the "unsure/ don't know" option.

Please provide your answers as soon as possible (before June 15, 2011). We thank you in advance for your participation.

1. IDENTITY

Name of person answering		Phone number	
Job role/title		e-mail address	
Name of organization		Language of operation	
City/town		Country	
Province		Postal code	

2. WHAT TYPE OF ORGANIZATION ARE YOU INVOLVED WITH? (SELECT ALL THAT APPLY)

Credential assessment service		Regulatory body	
University		Sector council	
Professional or apprenticeship association/society		Federal/provincial/ territorial/local government or agency	
College		Other (please specify):	

3. HOW MUCH ACADEMIC CREDENTIAL ASSESSMENT WORK IS DONE IN YOUR ORGANIZATION? (IF UNSURE, PLEASE RESPOND WITH "UNKNOWN")

Number of full-time academic credential assessors		Number of part-time academic credential assessor staff	
What percentage of your total staff time is spent on academic credential assessment		Number of individual foreign academic credentials assessed per year	

4. AVAILABILITY OF DATA ON INDIVIDUAL ACADEMIC CREDENTIAL ASSESSMENT DECISIONS

We have NO electronic data	
We have electronic data (but not a database)	
We have a structured database	
Other (please specify)	
Unsure/Don't know	

Please describe your record keeping system in more detail, if possible.

5. WE HAVE THE FOLLOWING DATA ON INDIVIDUAL ACADEMIC CREDENTIAL ASSESSMENT DECISIONS AVAILABLE: (SELECT ALL THAT APPLY)

Date of decision		Grade scale	
Country		Reason for academic credential assessment	
Institution		Rationale for decision/ recommendation	
Academic credential		Transfer equivalent/ course match	
Area of specialization		Credit conversion relationship	
Date of academic credential		Comments	
Comparable academic credential in Canada		Other (please specify)	
Not sure/Don't know			

Approximate number of decisions:	

Our data go back to (year)	

6. WILLINGNESS TO SHARE NON-PERSONAL DATA

My organization is NOT willing to share any data	
We are willing to make such data available to approved organizations under controlled conditions, free of charge	
We are willing to share data under controlled conditions, on suitable payment terms	
Not sure/Don't know	

Any other limitations or conditions which would affect your organization's decisions to share data?
Please explain the reasons for your answers.

7. ACCESS TO NON-PERSONAL DATA

We are interested in access to other organizations' data	
If not, please explain why.	

8. WE WOULD BE INTERESTED IN ACCESSING THE FOLLOWING DATA ON INDIVIDUAL ASSESSMENT DECISIONS

Date of decision		Grade scale	
Country or region		Reason for academic credential assessment	
Institution		Rationale for decision/ recommendation	
Academic credential		Transfer equivalent/ course match	
Level		Credit conversion relationship	
Area of specialization		Comparable academic credential in Canada	
Date of academic credential		Other information which would be of interest – please list	

9. FUNDING OPTIONS (PLEASE CHECK ONE OF THE FOLLOWING OR SUGGEST ANOTHER ALTERNATIVE)

We think the entire development and operation should be publicly funded	
We think the initial development should be publicly funded, but future operating costs should be recovered by an appropriate usage charge	
In addition to covering operating costs, data providers should be remunerated also	
Not sure/don't know	
Any other comments or suggestions please	

10. HOSTING. WE BELIEVE THE HOSTING OF THE SERVICE BY CICIC SHOULD BE SUPPORTED BY (PLEASE SELECT YOUR ORDER OF PREFERENCE, INDICATING AT LEAST YOUR 1ST PREFERENCE AND YOUR 5TH) AT LEAST ONE OPTION MUST BE SELECTED.

A board composed of stakeholders	
A collective of the participants	
An independent non-profit body	
A private body	
Not sure/Don't know	
Other (please specify):	

Do you have any other comments relating to the subject of this questionnaire?

If you have any questions or comments related to this survey or to the subject matter therein, please write them in the text box below or e-mail Felicity Borgal at felicityb@CamProf.com

Thank you for your assistance.

APPENDIX II: STRUCTURE OF KEY INFORMANT INTERVIEWS

Organizations will find this tool to be cost-effective, as it will save resources and time and enable quicker decisions.

1. What do you perceive to be the benefits, if this were to proceed?

2. What is your decision process, and how might this tool affect it (or not)?

3. Could you describe what type of electronic data/information you have? What form does it take? (how decisions and related information are stored/how it's accessed)

4. What detailed data do you record?

5. How far back does the data go? Have there been any changes to the record-keeping system over the years?

6. How willing would you be to share some or all of that (non-personal) data?/Under what circumstances might you be willing to consider it?

7. Would you be interested in accessing similar information/other organizations' data? Other information? Why?/Why not?

8. If yes, which specific data would you be most interested in?

9. Hypothetically, if this tool came to fruition, what sort of project funding do you think would be suitable? What sort of payment arrangements (if any)?

10. Hypothetically, if this tool came to fruition, who should host it? Why?

11. Quality assurance – Assuming in a list of decisions, the early ones wouldn't be as good quality as later decisions. What sort of quality assurance processes should be applied to the data to make it more useful?

12. Are there any potential showstoppers (major obstacles that are insurmountable that render further discussion fatuous) from your point of view?

13. Overall, do you recommend this project go forward or not?

14. Any other comments?

APPENDIX III: LIST OF INTERVIEWS CONDUCTED

CICIC should host the tool, as it already has

a pan-Canadian mandate.

Philip Bélanger
International Credential and Competency Assessment and Recognition (ICCAR)

Edward Carson
Chief Business Officer and Associate Director
Comparative Education Services (CES)

Tina Cheng
Evaluator
Certification Department
British Columbia College of Teachers

Alexandre Dufour-Mignault
Adjoint à la directrice
Centre d'expertise sur les formations acquises hors du Québec (CEFAHQ)
Ministère de l'Immigration et des Communautés culturelles

Gaëtan Faucher
Directeur Général
Services régional d'admission du Montréal métropolitain (SRAM)

Gordon Griffith
Director, Education
Engineers Canada

Sherron Hibbit
President
International Credential Assessment Service (ICAS)

Roger Hur
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Pierre Labbé
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Tim Owen
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Julie Parna
Director, Admissions (Assessment and Document Processing)
York University

Jeff Stull
International Qualifications Assessment Service (IQAS)
Alberta Employment and Immigration

Rosalie Vlaar
Senior Policy Analyst, Enrolment Services
University of British Columbia

Qiuling Wu
Assistant Registrar, International Admissions
Office of the Registrar
Dalhousie University

PAN-CANADIAN QUALITY STANDARDS IN INTERNATIONAL ACADEMIC CREDENTIAL ASSESSMENT
RESOURCES AVAILABLE IN ENGLISH

1. Pan-Canadian Quality Standards in International Academic Credential Assessment: Phase II
2. *Pan-Canadian Quality Assurance Framework for the Assessment of International Academic Credentials*
3. *Competency Profile for an Academic Credential Assessor – Volume 1*
4. *Competency Profile for an Academic Credential Assessor – Volume 2*
5. *Competency Profile for an Academic Credential Assessor – Volume 3*
6. A Feasibility Study for a Distance Education Program for Canadian Academic Credential Assessors
7. A Feasibility Study for a Web-Based Application to Share Assessment Results, Resources, and Methodologies on Academic Credential Assessments
8. *English Terminology Guide for Academic Credential Assessment in Canada*
   http://terminology.cicic.ca
   (ON-LINE ONLY)

   French Terminology Guide for Academic Credential Assessment in Canada
   http://terminologies.cicdi.ca
   (ON-LINE ONLY)
9. Country Profiles
   http://countryprofiles.cicic.ca
   (ON-LINE ONLY)

LES RESSOURCES SONT AUSSI DISPONIBLES EN FRANÇAIS

www.evaluation.cicic.ca